



Research to
Prevent Blindness

Annual Report 2018

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An Eye Toward the Future

Dear Friends of Research to Prevent Blindness,

As we look back on 2018, it becomes clear that it was a year of looking forward – into the future that is. Almost 1,500 scientific studies published in 2018 cited RPB support – that's a lot of new knowledge! Some of these discoveries contributed much-needed progress to research challenges that we've been addressing for many years, while others broke entirely new ground. In all cases, they bolstered our hope for the future.

For instance, in August, RPB-funded researchers at Washington University School of Medicine in St. Louis gave us the exciting news that Alzheimer's disease may one day be predicted by a simple eye exam. Their study found a correlation between thinning of the retina and elevated levels of tau and amyloid proteins that are a hallmark of Alzheimer's disease. What an exciting application of eye research!

The same month, a physician and researcher at Massachusetts Eye and Ear, Jason Comander, MD, PhD (who in 2013 received an RPB Career Development Award to support his early-career research), performed the surgery to deliver the very first FDA-approved gene therapy for inherited blindness. The patient, a 13-year-old boy, had fast and significant gains in vision. Truly amazing.

These two examples, which occurred just weeks apart, remind us that the eye is a truly remarkable structure. The retina (back of the eye) forms early in development from a structure that gives rise to the central nervous system. In other words, the retina is part of the brain! Being more accessible than the rest of the brain, the retina affords unique opportunities for diagnosis and earlier treatment of a wide range of diseases and conditions. The eye is indeed a window into the future.

After reading this report, we hope you'll agree that the future of Research to Prevent Blindness is bright! While the landscape of vision research is changing rapidly thanks to remarkable scientific advances, one thing that remains constant is our commitment to excellence. We fund the best researchers, in the most effective labs, asking the most important research questions, in order to achieve our ultimate goal, to preserve and restore vision. We are so grateful to our many donors who generously and passionately support this mission. Together, we are creating the treatments and cures of tomorrow.

With gratitude,

Diane S. Swift, *Chairman*

Brian F. Hofland, PhD, *President*



Diane S. Swift



Brian F. Hofland

Current Grants

RPB was founded in 1960 with one overarching goal: to preserve and restore vision. To achieve this lofty objective in the most effective manner, RPB has developed a unique two-pronged model.



Individual Grants

In 2018, RPB provided \$5.3 million in grants to outstanding individual researchers.

RPB offers a variety of individual grants—from those based on career-stage to those focused on specific diseases. These restricted grants allow researchers to pursue specific proposals that will advance vision science in a critical way.

All individual grants undergo rigorous scientific review by two review committees (see page 19 for a listing of these experts) in order to assess the relevance and feasibility of the proposed research, as well as the scientific excellence of the researcher.

Individual research projects spanned the gamut of topics in 2018; the most common project areas were retinal research, glaucoma, cornea, low vision and neuro-ophthalmology.



Unrestricted Grants

In 2018, RPB provided \$4.3 million in unrestricted support to high-performing departments of ophthalmology.

RPB provides exceptional departments of ophthalmology (as determined by rigorous peer review) with \$75,000 – \$115,000 a year in unrestricted funding. As one of the few sources of unrestricted funds, RPB grants can have an outsized impact.

Allocated by the department chair, the funds can be deployed throughout the department to respond to timely and exciting opportunities, as seen in the photos on page 5.

Unrestricted grants are used in a variety of ways: to allow a seasoned researcher to start a groundbreaking new line of research; to help a brilliant early-career scientist collect preliminary data; or to purchase a piece of cutting-edge equipment that will benefit many researchers in the department, for example.

In 2018, RPB grants were applied across the entire spectrum of research. Our grantees report that their work falls in the following categories*:

122
BASIC

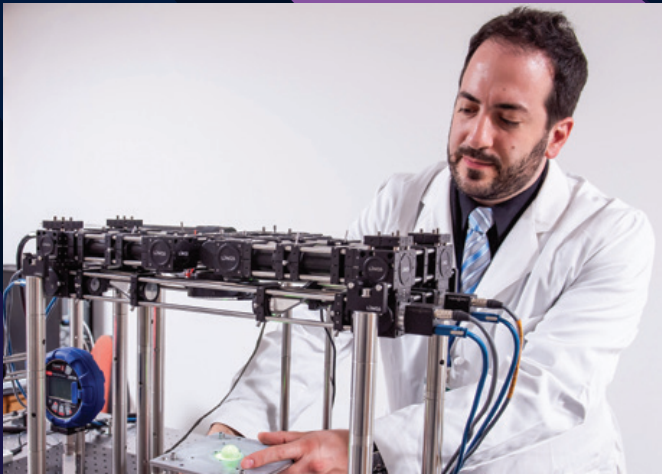
132
TRANSLATIONAL

44
CLINICAL

*Denotes number of active research projects in each category. Researchers could choose more than one category if appropriate.



Catherine Bowes Rickman, PhD, of Duke University School of Medicine, and members of her lab analyze proteins separated on a gel for pre-clinical studies of age-related macular degeneration models.



Massimo Fazio, PhD, of the University of Alabama at Birmingham School of Medicine, examines the ocular tissues' response to intraocular pressure.



Marjan Farid, MD, of the University of California, Irvine, School of Medicine, works toward the development of a novel artificial cornea.



David Sarraf, MD, of the David Geffen School of Medicine at University of California, Los Angeles, reviews retinal images with his clinical and research fellows.

Discoveries

At any given time, hundreds of RPB-supported researchers are working on research projects related to every area of vision science—from creating clinical treatments for amblyopia (lazy eye) in children to developing strategies for optic nerve regeneration in adults with degenerative eye diseases.

In 2018, RPB funds were applied to **152 research grants**. These grants resulted in **1,494 new studies** published in scientific journals, adding to the body of knowledge that scientists and clinicians draw on to treat and cure vision disorders. Here are just a few examples of the powerful science conducted by RPB-supported researchers in 2018.

RPB-funded researchers at Washington University School of Medicine in St. Louis found a correlation in 30 older patients between retina thinning and elevated levels of tau and amyloid proteins that are the hallmark of **Alzheimer's disease**. They made their discovery by using optical coherence tomography angiography (OCTA) to examine the patients' retinas. In patients with elevated levels of amyloid or tau, researchers detected significant thinning in the center of the retina. While everyone has a small area devoid of blood vessels in the center of the retina, this zone was significantly enlarged in people with preclinical Alzheimer's disease. This preliminary study points to OCTA as a potential inexpensive and noninvasive way to determine who should undergo more extensive Alzheimer's testing.

A study from an RPB-supported researcher at Northwestern University School of Medicine could speed up the diagnosis of **diabetic retinopathy** and more. The researcher and his team determined that nitric oxide-releasing amacrine cells are critical to blood vessel regulation in the retina and beyond. By detecting damage to nitric oxide-releasing amacrine cells, diabetic retinopathy could potentially be diagnosed years earlier than is currently possible—before damage occurs. The knowledge gained through this research could also lead to new options for stroke treatment.

In northern Ethiopia, the childhood eye infection **trachoma** is a major source of blindness. Many communities have benefited from mass distribution of the antibiotic azithromycin. RPB-supported researchers at the University of California, San Francisco, along with international colleagues, conducted a 7-year-trial of communities that undertook annual or semi-annual treatment. Some communities continued treatment throughout the study period and some stopped treatment after 4 years. In the latter group, the researchers found that trachoma increased after the antibiotic program ended. The researchers determined that stopping mass azithromycin treatment in some severely affected areas is not realistic and that alternative strategies for trachoma elimination are required.

RPB-supported researchers and physicians at the University of Southern California Roski Eye Institute and collaborators showed that a stem cell-based retinal implant is feasible for use in people with **advanced dry age-related macular degeneration**. The treatment, which consists of a layer of stem cell-derived retinal pigment epithelium cells on an ultrathin supportive structure, was implanted in the retina of four patients. A year later, the treatment was well-tolerated. One patient had improvements in visual acuity, while two showed gains in visual function.

Supporting The Field

In order to create a solid foundation for ground-breaking vision research, RPB supports select educational and advocacy activities that positively impact the field at large. When the vision science community is strong, research thrives.



EARLY-CAREER
SUPPORT



VISION
RESEARCH
ADVOCACY



HIGH-LEVEL
CONVENINGS



Congressman Randy Hultgren (R-IL), left, spoke with EVS participant Dimitra Skondra, MD, PhD (University of Chicago), right.

Enabling Advocacy on the Hill

RPB was pleased to underwrite the Alliance for Eye and Vision Research's (AEVR's) Fourth Annual Emerging Vision Scientists (EVS) Day on Capitol Hill. The EVS event brought together 20 early-career researchers from departments of ophthalmology and optometry programs. EVS participants presented research posters at an evening Congressional Reception. The next day, they visited the offices of their Congressional representatives to underscore the importance of federally funded eye research. The Advocacy Day, organized by the National Alliance for Eye and Vision Research, enabled the early-career researchers to ask for robust and sustained funding for the National Institutes of Health and the National Eye Institute.

Educating Ophthalmology Residents

RPB again contributed to The Heed Ophthalmic Foundation's Annual Residents Retreat (its 13th), at which ophthalmology residents learned about building successful careers from seasoned academic ophthalmologists. The multi-day event was designed to encourage residents to become academic researchers and clinicians through professional development exercises.



Ophthalmology residents attended The Heed Ophthalmic Foundation's Annual Residents Retreat.



RPB President Brian F. Hofland, PhD, spoke at the reception for the National Eye Institute's 50th Anniversary, which took place in Washington, DC.

Celebrating the NEI's 50th Anniversary

In 2018, the National Eye Institute (NEI) celebrated its 50th anniversary with a year-long series of vision research symposia, as well as a reception on Capitol Hill. RPB President Brian F. Hofland, PhD, spoke at the reception, in recognition of the NEI's incredible success in funding sight-saving research. Dr. Hofland also touched on RPB's role in founding the NEI, thanks to RPB's founders' efforts to convince Congress and the President of the U.S. of the need for an institute focused specifically on vision and vision disorders.

Convening Vision Research Funders

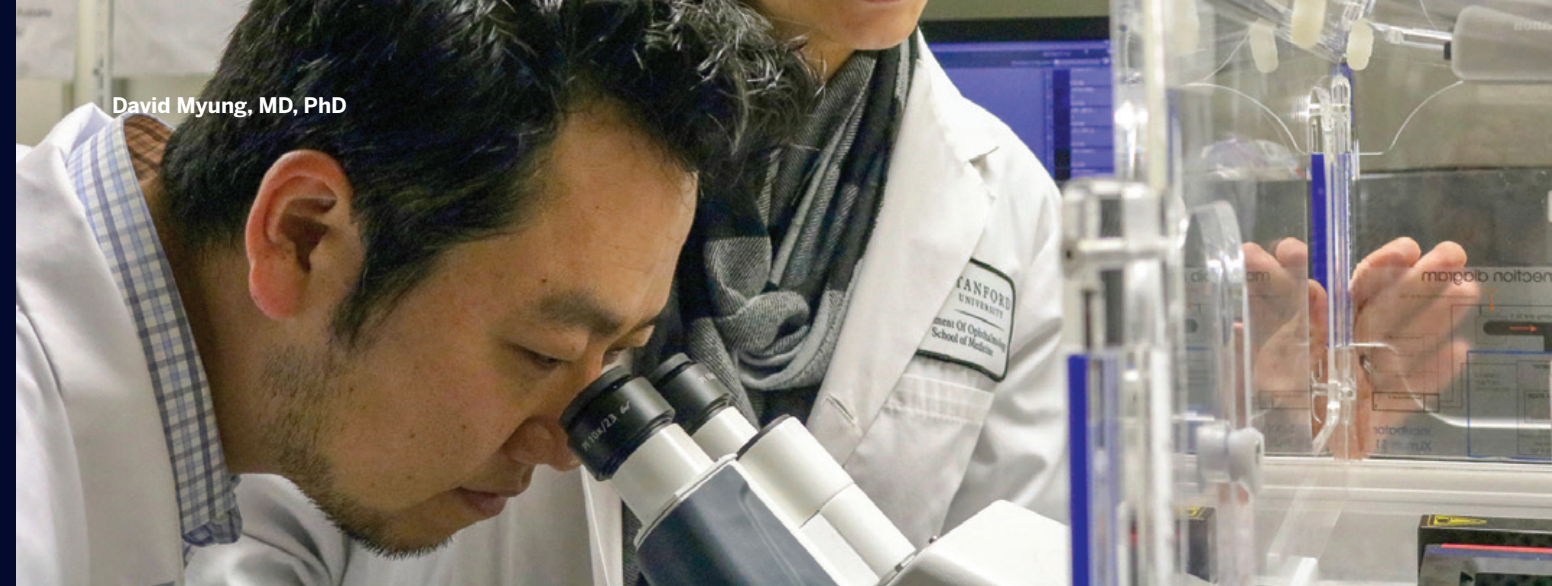
RPB hosted its fifth "Vision Research Funding Partnership" event, bringing together leaders from more than 30 other organizations that fund vision research. The event is designed to bring together stakeholders—from the non-profit, government and for-profit sectors—to identify synergies where funders might work together to maximize their impact. The meeting also gives funders the opportunity to learn about new trends in the field. This year's theme was The Eye in the Age of Artificial Intelligence. The event was co-sponsored by the Glaucoma Research Foundation, E. Matilda Ziegler Foundation for the Blind, EyeSight Foundation of Alabama, International Retinal Research Foundation, Lighthouse Guild and Richman Associates, LLC (in-kind).



More than 30 organizations were represented at RPB's event for vision research funders.

New Grants

RPB is pleased to present its 2018 individual award recipients. These 27 scientists are conducting research that spans the field of vision research and will lead to the sight-saving discoveries of tomorrow.



David Myung, MD, PhD

RPB Career Development Awards

This award provides \$300,000 over 4 years to attract promising young MDs, PhDs and MD/PhDs to eye research and to support their early investigations, which helps qualify them for larger federal grants. Their primary appointments must be in ophthalmology and they must show potential for independent research.

J. Peter Campbell, MD, MPH

Oregon Health & Science University School of Medicine

Developing quantitative metrics to monitor the earliest onset and pace of disease in retinopathy of prematurity, a leading cause of childhood blindness worldwide.

Aaron Y. Lee, MD, MSCI

University of Washington School of Medicine

Pinpointing imaging biomarkers for age-related macular degeneration that can be used as surrogate endpoints for clinical trials.

Reyna I. Martinez-De Luna, PhD

SUNY Upstate Medical University

Elucidating the molecular mechanisms of the development of retinal ganglion cell-based diseases.

Joshua Morgan, PhD

Washington University School of Medicine in St. Louis

Identifying structural impediments to the regeneration of visual connections, which are lost in diseases like glaucoma when there is damage to the retinal ganglion cell axons that travel through the optic nerve.

David Myung, MD, PhD

Stanford University School of Medicine

Developing a sutureless, injectable corneal tissue substitute that stabilizes deep wounds of the cornea.

Catherine Oldenburg, ScD, MPH

University of California, San Francisco, School of Medicine

Evaluating an alternative antibiotic distribution strategy that involves intensive treatment of children with active trachoma, the world's leading infectious cause of blindness.

Jillian Pearing, PhD

The Regents of the University of Michigan School of Medicine

Exploring defects in protein trafficking to the light-sensing outer segment of photoreceptors, which are responsible for capturing light and generating a visual signal.



Jillian Pearing, PhD

RPB Stein Innovation Awards

This award was developed to uncover and encourage high-risk/high-gain vision science research that is innovative and cutting-edge. It provides \$300,000 over 3 years to researchers whose goal is understanding the visual system and the diseases that compromise its function. The proposed research cannot be funded— previously or at the time of application—by others.

David J. Calkins, PhD

Vanderbilt University School of Medicine

Exploring whether novel forms of gene therapy can boost energy sharing between astrocytes and ganglion cell axons to maintain signaling along the optic nerve and preserve vision (independent of ocular pressure) in glaucoma.

E.J. Chichilnisky, PhD

Stanford University School of Medicine

Laying the foundation for the creation of an artificial retina that can match or exceed the normal biological function of the retina, thereby providing an effective treatment for vision loss from blinding diseases such as retinitis pigmentosa and age-related macular degeneration.

Reza Dana, MD, MSc, MPH

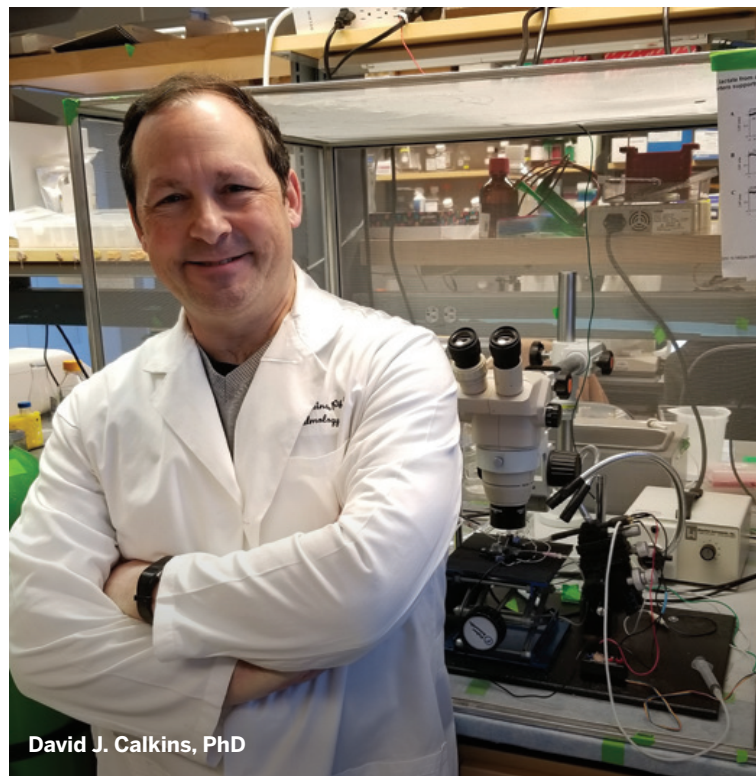
Harvard Medical School / SERI

Developing a biomaterial for replacement and regeneration of the cornea that does not require surgery.

Maxence Nachury, PhD

University of California, San Francisco, School of Medicine

Utilizing a precision medicine strategy to ameliorate Bardet-Biedl Syndrome (BBS), the second most common inherited syndromic retinal degeneration, by targeting its molecular root.



RPB Physician-Scientist Awards

This 3 year, \$300,000 award strengthens and promotes clinical and/or basic research conducted by MDs or MD/PhDs who are actively engaged in clinical research.

Ali Djalilian, MD

University of Illinois at Chicago College of Medicine

Developing a novel regenerative therapy for corneal and ocular surface diseases via exosomes, or extracellular vesicles, which are “packages” of biologic “goodies” secreted by stem cells.

Benjamin J. Frankfort, MD, PhD

Baylor College of Medicine

Testing the hypothesis that normal serotonin signaling is disrupted in glaucoma, and/or that the pharmacologic enhancement of serotonin signaling in patients with glaucoma prevents or reduces neuron injury.

Jules and Doris Stein RPB Professorship Extension

The Professorship is named after RPB’s founder, Dr. Jules Stein, and his wife, Doris Stein, in support of an outstanding investigator that is making seminal contributions to the field of vision research. The extension provides \$250,000 to continue an important line of research.

Xin Zhang, PhD

Columbia University College of Physicians & Surgeons

Uncovering the molecular interactions that cause growth factor signaling (which helps cells to communicate and perform their intended functions) during eye development.

Low Vision Research Awards

Low vision refers to chronic impairment that is not correctable by eyeglasses, medicines or surgery. It can significantly and negatively impact a person’s visual activities of daily living and quality of life. In 2010, the National Eye Institute estimated that 3 million people in the U.S. suffered from low vision, with projections that this number would increase to nearly 5 million in 2030 and 9 million in 2050. Low vision is a woefully under-researched topic and RPB’s funding partnerships with three other foundations are designed to shine a spotlight on the topic and launch useful research.

RPB/Lions Clubs International Foundation

Low Vision Research Award

This award focuses on the visual system that is damaged and seeks to answer questions such as: What happens with degraded visual input and how is it processed? What are the adaptive strategies in the visual pathway in response to visual impairment? How does the brain re-organize itself after visual damage? One grant of \$300,000 over 3 years was awarded in 2018.

Alex Yuan, MD, PhD

Cleveland Clinic Lerner College of Medicine

Assessing biomarkers of visual recovery in patients with the Argus II retinal prosthesis using functional magnetic resonance imaging (MRI).

RPB/Consumer Technology Association Foundation/Reader’s Digest Partners for Sight Foundation

Innovations in Technology Low Vision Research Award

This award promotes development of assistive devices for persons with low vision, with a focus on mobile and/or device innovations that can be implemented on multiple platforms, such as electronic tablets or mobile phones. Two grants of \$150,000 were awarded in 2018.

RPB/CTAF Award:

Bradley E. Dougherty, OD, PhD

The Ohio State University

Integrating features for low vision rehabilitation into an existing head-mounted tablet device and then testing the device’s ability to help people with low vision read text and navigate in an unfamiliar building.

RPB/RDPFS Award:

Ender Tekin, PhD

University of Wisconsin-Madison School of Medicine & Public Health

Developing an affordable, portable system to improve access to presentations and lecture notes for students and professionals with low vision.



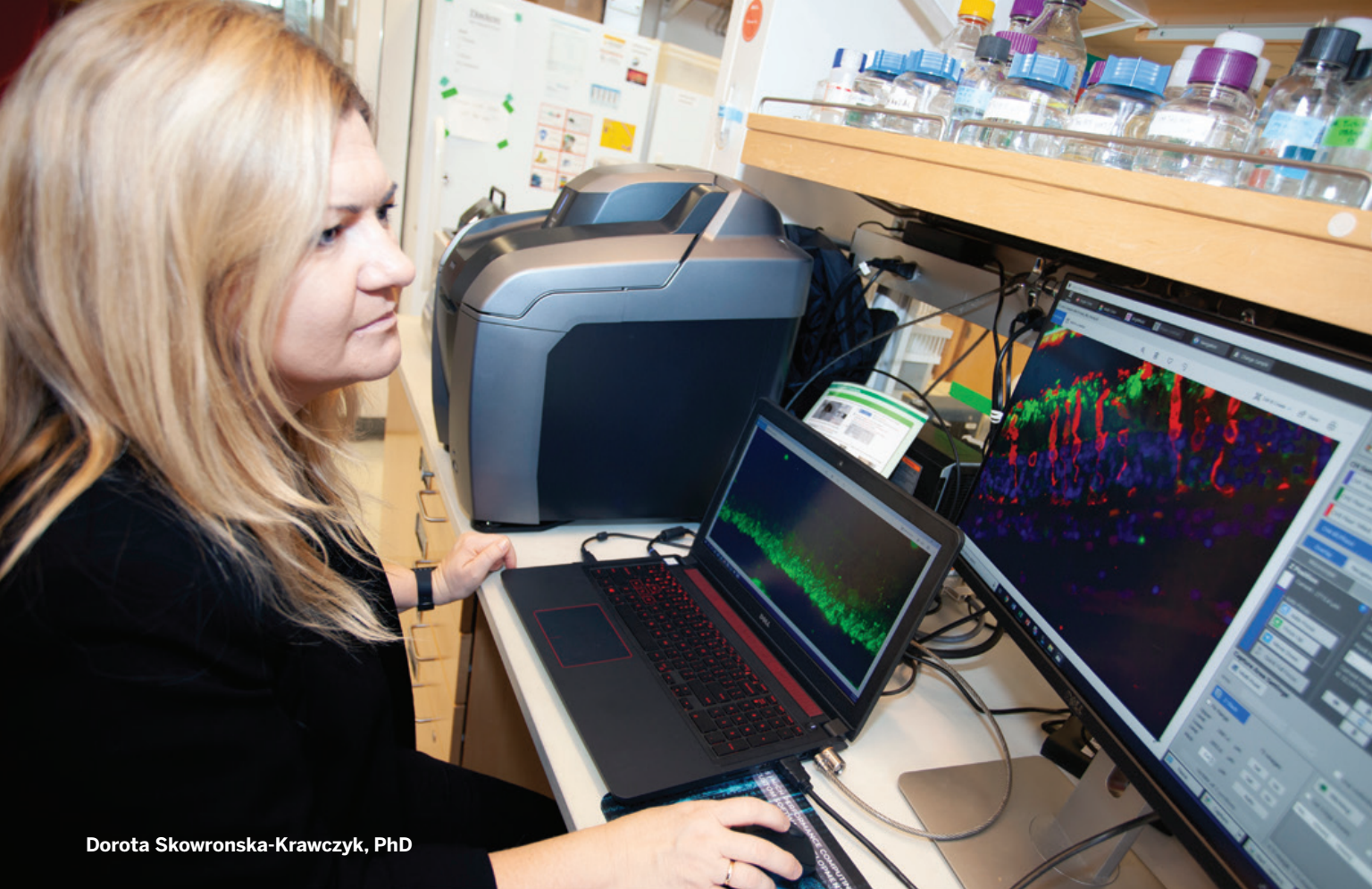
**RPB/Stavros Niarchos Foundation
International Research Collaborators Award**

This \$75,000 award promotes international collaborations through which researchers in the U.S. and outside the U.S. gain new knowledge and skills. Under a reciprocal arrangement, a U.S.-based researcher—MD, PhD or MD/PhD with a primary appointment in the department of ophthalmology or a relevant department—will be funded to go to an institution outside the U.S. to work with a collaborator. In turn, the institution outside the U.S. will send a researcher to the U.S. institution.

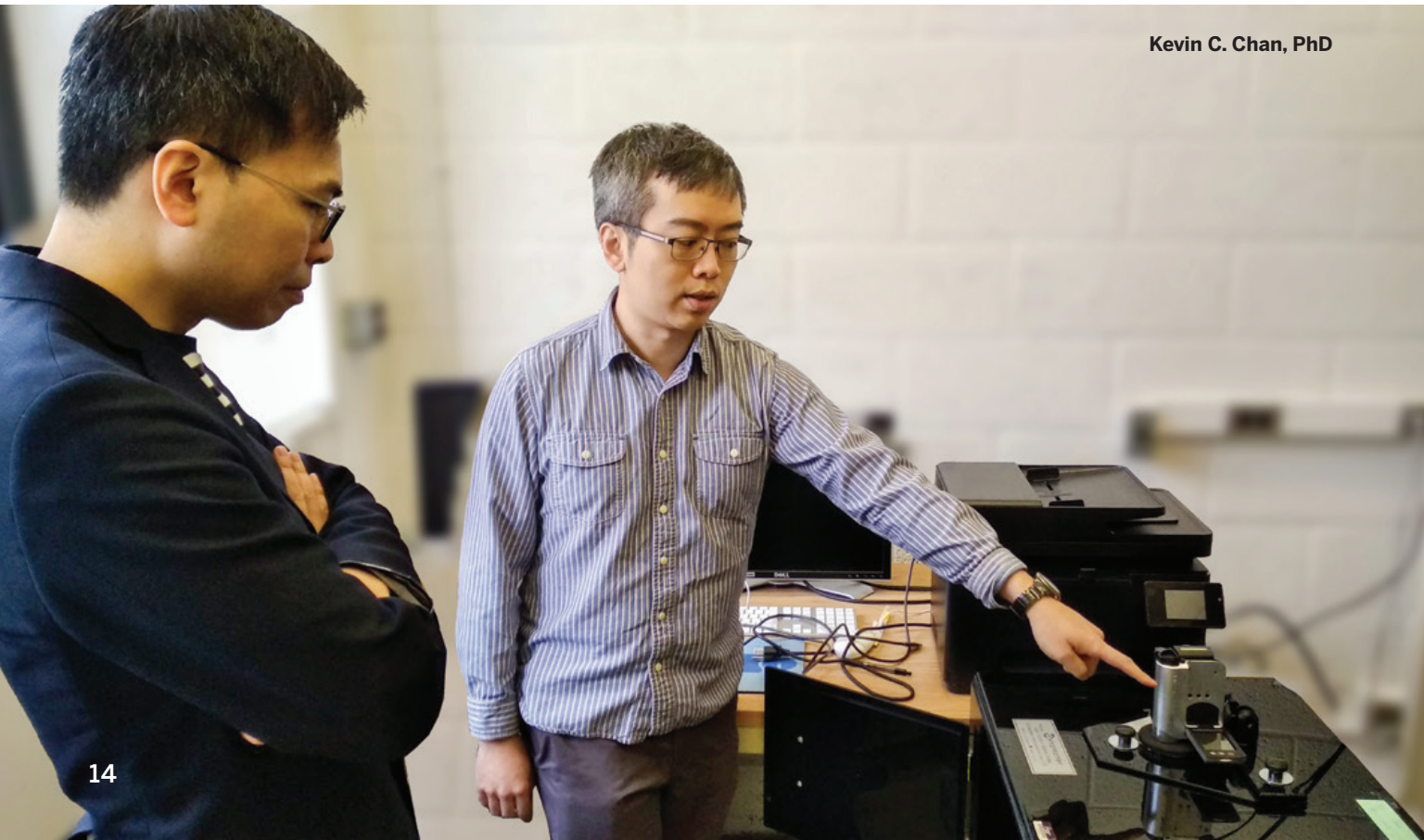
Kevin C. Chan, PhD
New York University School of Medicine
Collaborator: Christopher K. Leung, MD, The Chinese University of Hong Kong
Developing a novel model of experimental glaucoma to allow researchers to better study neurodegeneration and neuroprotection of the visual system and, ultimately, to better test potential therapeutics.

Karl Kador, PhD
University of Missouri-Kansas City School of Medicine
Collaborator: Daniel Kelly, PhD, Professor, Trinity College Dublin (Ireland)
Developing an advanced human retinal organoid model with two components that are missing in *in vitro* human stem cells: a nerve fiber layer containing retinal ganglion cell axons and a vasculature.

Shannath L. Merbs, MD, PhD
The Johns Hopkins University School of Medicine
Collaborator: Antonio Augusto Velasco e Cruz, MD, PhD, Professor, School of Medicine of Ribeirao Preto, University of Sao Paulo (Brazil)
Studying a newly developed surgical procedure for lower eyelid trichomatous trichiasis, a condition in which the eyelashes turn into the eye and cause scarring and blindness, and for which there is currently no standard treatment.



Dorota Skowronska-Krawczyk, PhD



Kevin C. Chan, PhD

RPB Special Scholar Awards

These \$25,000 to \$75,000 awards are named in tribute to individuals who established funds at RPB and are designed to support the research of promising early-career researchers with primary appointments in ophthalmology.

Sybil B. Harrington Scholar Award:
Allen Eghrari, MD, MPH
The Johns Hopkins University School of Medicine
Developing clinical and genetic characterizations of Fuchs dystrophy (a corneal disease that impacts vision) in African Americans, who have been shown to have unique features of the disease.

William & Mary Greve Scholar Award:
Yang Hu, PhD
Stanford University School of Medicine
Investigating possible commonalities between genes associated with amyotrophic lateral sclerosis (ALS) and glaucoma, specifically with regard to the genes' roles in axon degeneration and retrograde neuronal cell death.

Ernest & Elizabeth Althouse Scholar Award:
Dorota Skowronska-Krawczyk, PhD
University of California, San Diego, School of Medicine
Counteracting the expression of a specific age-related gene in eyes with glaucoma to better understand the gene's impact on tissue and to aid in the development of novel strategies for the treatment of glaucoma.



Maria Gomez-Caraballo

RPB Medical Student Eye Research Fellowships

This \$30,000 grant allows outstanding medical students to take a year off from medical school and devote time to a research project in an RPB grantee department while working closely with a mentor. The fellowship is designed to stimulate students to consider careers in eye research.

Maria Gomez-Caraballo, conducting research at Duke University School of Medicine
Mentor: W. Daniel Stamer, PhD

Shiming Luo, conducting research at the Cleveland Clinic Lerner College of Medicine
Mentor: Bela Anand-Apte, MBBS, PhD

Leo Hall, conducting research at Wayne State University School of Medicine
Mentor: Tomomi Ichinose, MD, PhD

Hannah Schultz, conducting research at the University of Pennsylvania School of Medicine
Mentor: Joshua Dunaief, MD, PhD



Shiming Luo

Special Grants for Partnerships and Collaboration

RPB supports strategic alliances through selected special grants to mission-driven organizations to help advance the entire field of U.S. vision research.

Alliance for Eye and Vision Research (AEVR): \$50,000

To enhance AEVR's efforts to educate the public about the value of federally-funded vision research. In 2018, activities conducted under the auspices of AEVR's Decade of Vision 2010 – 2020 Initiative included hosting the fourth annual Emerging Vision Scientists Day on Capitol Hill, in which 20 early-career stage researchers were able to interact with Congressional leaders and staff, as well as the production and dissemination of an accompanying documentary video. AEVR also hosted multiple Congressional Briefings for legislative staff that highlighted vision research funded by the National Eye Institute in areas such as dry eye, glaucoma, and age-related macular degeneration.

Association of University Professors of Ophthalmology (AUPO): \$125,000

To support AUPO's mission: to serve, strengthen and represent academic departments of ophthalmology; to provide support, information and leadership opportunities to departmental chairs, program directors and other faculty members; to promote excellence in ophthalmic education; to foster vision research; and to promote ethical practice and excellence in eye care in order to ensure the best possible vision for the public.

RPB/AAO Awards for IRIS Registry Research

In 2018, RPB and its partner organization, the American Academy of Ophthalmology (AAO), awarded the first round of RPB/AAO Awards for IRIS Registry Research, which is administered by AAO. The award is designed to enable researchers to use AAO's IRIS® Registry—the nation's largest specialty clinical database—to conduct population-based studies in ophthalmology and blindness prevention.

Congratulations to the inaugural 2018 awardees:

Xueya Cai, PhD, Research Associate Professor, University of Rochester School of Medicine & Dentistry;
Sapna Gangaputra, MD, MPH, Assistant Professor, Vanderbilt University School of Medicine;
Jay Stewart, MD, Professor, University of California, San Francisco, School of Medicine; and
Elizabeth Vanner, PhD, Scientist/Biostatistician, University of Miami Miller School of Medicine.



2018 Emerging Vision Scientists Day participants

2018 RPB APPROVED GRANTS TOTAL: \$9,550,000*
U.S. medical schools receiving new 2018 departmental and/or individual investigator awards

STATE	RPB GRANTEE INSTITUTIONS	TOTAL GRANTS 2018	TOTAL SUPPORT INCLUDING 2018
ALABAMA	University of Alabama at Birmingham School of Medicine	\$ 115,000	\$ 4,830,000
CALIFORNIA	David Geffen School of Medicine at UCLA	115,000	9,695,750
	University of California, Irvine, School of Medicine	115,000	1,055,000
	University of California, San Diego, School of Medicine	190,000	3,935,000
	University of California, San Francisco, School of Medicine	715,000**#	11,504,256
	Keck School of Medicine of the University of Southern California	115,000	5,809,795
	Stanford University School of Medicine	660,000**#	1,546,450
FLORIDA	University of Florida College of Medicine	115,000	4,880,600
	University of Miami Miller School of Medicine	115,000	5,337,700
ILLINOIS	University of Illinois at Chicago College of Medicine	415,000	5,381,712
IOWA	University of Iowa Carver College of Medicine	115,000	5,352,425
MARYLAND	The Johns Hopkins University School of Medicine	245,000	11,020,140
MASSACHUSETTS	Harvard Medical School	415,000#	11,110,315
MICHIGAN	The Regents of the University of Michigan School of Medicine	415,000**	9,568,050
	Wayne State University School of Medicine	145,000	4,518,000
MISSOURI	University of Missouri-Kansas City School of Medicine	75,000	295,000
	Washington University School of Medicine in St. Louis	415,000**	8,319,981
NEW YORK	Columbia University College of Physicians & Surgeons	365,000	6,803,167
	Weill Cornell Medical College	115,000	5,768,700
	New York University	75,000	2,352,250
	University of Rochester School of Medicine & Dentistry	115,000	4,605,250
	SUNY Upstate Medical University	415,000**	3,160,000
NORTH CAROLINA	Duke University School of Medicine	145,000	8,750,150
OHIO	Case Western Reserve University School of Medicine	115,000	4,337,500
	Cleveland Clinic Lerner College of Medicine	445,000	4,490,000
	The Ohio State University, College of Optometry	150,000	150,000
OKLAHOMA	University of Oklahoma Health Sciences Center	115,000	5,586,600
OREGON	Oregon Health & Science University School of Medicine	415,000**	6,487,150
PENNSYLVANIA	University of Pennsylvania School of Medicine	145,000	6,903,500
	University of Pittsburgh School of Medicine	115,000	5,903,372
TENNESSEE	Vanderbilt University School of Medicine	415,000#	3,920,500
TEXAS	Baylor College of Medicine	415,000	5,529,060
	University of Texas Southwestern Medical Center at Dallas	115,000	5,021,000
UTAH	University of Utah Health Sciences Center	115,000	6,010,300
WASHINGTON	University of Washington School of Medicine	415,000**	5,032,638
WISCONSIN	University of Wisconsin-Madison School of Medicine	265,000	6,603,750

*Includes commitments for special grants to the Alliance for Eye and Vision Research, the American Academy of Ophthalmology and the Association of University Professors of Ophthalmology.
**Includes a four-year \$300,000 Research to Prevent Blindness Career Development Award, payable at the rate of \$75,000 per year.
#Includes a \$300,000 Research to Prevent Blindness Stein Innovation Award payable in two equal installments of \$150,000.

School that received RPB support but no new grant in 2018: University of Colorado School of Medicine.

The RPB grant approval process is highly competitive. A standing Scientific Advisory Panel (SAP) and rotating Ad Hoc Committees convene each spring and fall to review all grant applications. Ad Hoc Committees are comprised of selected ophthalmology department chairs and researchers whose recommendations are forwarded to the SAP for further evaluation. The SAP includes distinguished scientists representing a broad range of scientific disciplines and interests. Their recommendations are presented to the RPB Board of Trustees for final approval.

2018 RPB SCIENTIFIC ADVISORY PANEL

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Visiting Professor
Kellogg Eye Center,
University of Michigan

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Wilmer Eye Institute
The Johns Hopkins School of Medicine

Janey L. Wiggs, MD, PhD
Paul Austin Chandler Professor, Department of Ophthalmology
Vice Chair for Clinical Research, Ophthalmology
Co-Director, Glaucoma Center of Excellence
Associate Director, Ocular Genomics Institute
Associate Director, Howe Laboratory, MEEI
Harvard Medical School
Associate Member, Broad Institute, Harvard and MIT

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Special Advisor to the RPB Staff
Professor of Cell Biology and Ophthalmology
Adjunct Professor of Geriatric Medicine
Interim Chair of Cell Biology
James P. Luton Endowed Chair in Ophthalmology
George Lynn Cross Research Professor in Cell Biology
University of Oklahoma Health Sciences Center

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