RETINA RESEARCH FOUNDATION
NEWSLETTER
Foresight for Sight
November 2017
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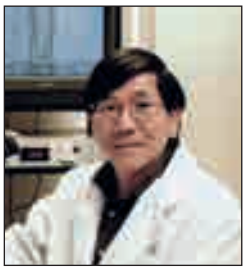
2017 RRF GRANT RECIPIENTS

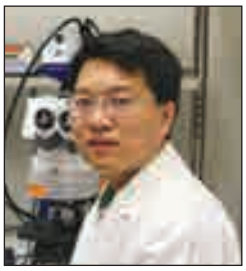
Wolfgang Baehr, PhD
John Moran Eye Center,
University of Utah
Salt Lake City, UT



Lih Kuo, PhD
Texas A&M
Health Science Center
Temple, TX

Curtis Brandt, PhD
University of Wisconsin
Madison, WI

Graeme Mardon, PhD
Baylor College of Medicine
Houston, TX



Rui Chen, PhD
Baylor College of Medicine
Houston, TX

Paul Shin-Hyun Park, PhD
Case Western Reserve University
Cleveland, OH

Timothy Corson, PhD
Indiana University
Indianapolis, IN

Louise Strong, MD
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Richard Hurwitz, MD
Baylor College of Medicine
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Samuel Wu, PhD
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Milan Jamrich, PhD
Baylor College of Medicine
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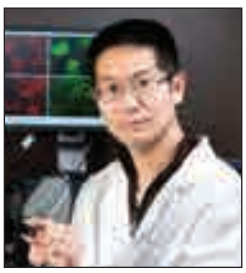

Wenbo Zhang, PhD
UT Medical Branch-Galveston
Galveston, TX

November 2017

Dear Friends,

From modest beginnings in 1969, Retina Research Foundation has methodically and purposefully built a solid organization aimed solely at eradicating blindness. The world of retina research has dramatically changed over these years, and we have had the strength and flexibility to meet each new challenge as it arose. Our programs now span the globe and encompass basic scientific research, chairs, professorships, lifetime achievement awards, travel grants, and international fellowships.

The scientists whose work we support are on the front lines of this battle to preserve vision. RRF-supported scientists are approaching the problem from many different angles and contributing new knowledge in their fields. They are our partners in progress, and each new discovery prepares the way for future advances.

As we close out another successful year, let me express deep appreciation to you all. You, our friends and supporters, are a key ingredient of our success. With many worthwhile causes to choose from, vision preservation is a cause you have chosen to actively take an interest in. If you have not yet given to RRF, we ask that you consider doing so now. We are grateful for your ongoing interest and support. We wish you a very happy, healthy and joyful holiday season, and all the best in the New Year and for many years to come.

With best regards,

Frank K Eggleston, DDS

Frank K. Eggleston, DDS
Chairman of the Board

R Malcolm Wooley

R. Malcolm Wooley
Fund Drive Chair

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Retina Research Foundation is dedicated to the eradication of retina disease through programs in research and education.

Bamini Gopinath, PhD

Walking

Shlomit Schaal, MD, PhD

Healthy Lifestyles and AMD Risk

A new study out of Australia has demonstrated a possible link between development of Age-related Macular Degeneration (AMD) or worsening of existing AMD and a combination of four specific lifestyle behaviors: diet, physical activity, alcohol intake, and smoking. Individually, these factors have been proven in prior studies to be beneficial to preserving vision, but this study established the benefit of making behavioral changes in all four areas. Up to this time, only one study, the Carotenoids in Age-Related Eye Disease Study (CAREDS) has examined the association between a combination of three healthy behaviors (healthy diet, physical activity, and not smoking) and risk of AMD – and this study only focused on women.

A team from the University of Sydney led by **Bamini Gopinath, PhD,** examined the collective influence of smoking, diet, alcohol intake, and physical activity on the prevalence and 15-year incidence of AMD in men and women aged 49 years and over. From approximately 2,500 participants with complete AMD and lifestyle data who were registered in the study, 1,900 participants were re-examined 15 years later through retinal photographs and behavioral assessments. Evaluating these healthy or unhealthy lifestyle behaviors collectively had greater connection to vision changes over time compared to analyzing individual behaviors separately. Participants who engaged in all four poor health behaviors had greater odds of developing AMD or progressing to late AMD.

"… our study findings appear to align with current advice regarding a number of other chronic diseases (e.g. cardiovascular disease and diabetes), specifically, quitting smoking, exercising more, eating plenty of vegetables and fruits, and moderating the intake of alcohol.

In summary, this cohort study provides unique data showing that a combination of unhealthy behaviors including: smoking, poor diet, high alcohol intake and low physical activity, was associated with a markedly higher likelihood of AMD."

www.nature.com

Early Detection of Diabetic Retinopathy

Shlomit Schaal, MD, PhD, of University of Massachusetts Medical School, is working on approaches to better identify the microscopic retinal changes that can indicate the first stages of diabetic retinopathy in diabetic patients. Patients in the beginning of the disease often do not have any symptoms, so the challenge is to convince people to see their eye doctors on a regular schedule. The National Eye Institute (NEI) recommends that people with diabetes have a comprehensive dilated eye exam at least once a year.

Working in collaboration with bioengineers, Dr. Schaal and colleagues at the University of Louisville have developed an algorithm for detecting subtle early changes in the retina of diabetic patients. "Our lab is focused on developing novel methods for automatic detection of changes in the retina that occur as result of diabetes," Dr. Schaal said. Better identification of microscopic changes in the retina early in the disease process may improve care for those patients and even reduce health care cost.

www.umassmed.edu

Gillingham Pan-American Fellowships

Two young Latin American ophthalmologists have been selected as the 2017 Gillingham Pan-American Fellows. This program was created by RRF in 1993 in affiliation with the Pan-American Association of Ophthalmology (PAAO). To date, 50 Latin American ophthalmologists have received six months of advanced subspecialty training at leading institutions in the United States and Canada as Gillingham Fellows.

Dr. Marcela A. Lonngi, from Colombia, will complete her fellowship at Jules Stein Eye Institute, Los Angeles, CA, in pediatric ophthalmology and strabismus with Dr. Joseph Demer.

Marcela Lonngi

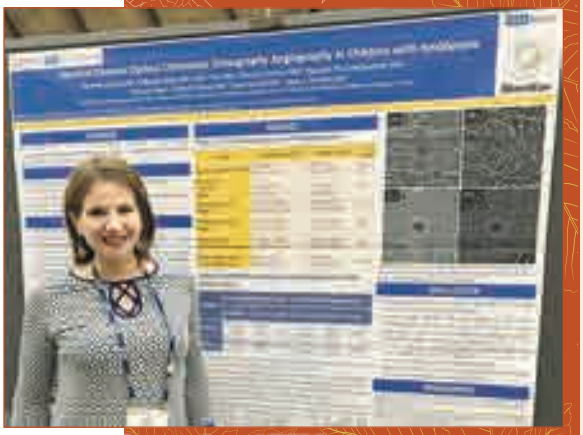
Dr. Andrea Elizabeth Arriola-López, from Guatemala, will complete her fellowship at Bascom Palmer Eye Institute, Miami, FL, in uveitis with Drs. Thomas Albini and Eduardo Alfonso.

Andrea Arriola

Dr. João Rafael de Oliveira Dias, from Brazil, was one of the 2016 Gillingham Fellows. Dr. Dias received advanced training in retinal diseases and ophthalmic imaging with Dr. Philip J. Rosenfeld at the Bascom Palmer Eye Institute, Miami, FL. The following is an excerpt from his report.

My fellowship included clinical and imaging research in retinal diseases related to exudation, degeneration, and angiogenesis, especially exudative and non-exudative age-related macular degeneration, idiopathic macular telangiectasia, central serous retinopathy, and diabetic retinopathy. My chief research project focused on the analysis of advanced retinal imaging, including optical coherence tomography (OCT) angiography, in retinal diseases.

Throughout the past year, I had the opportunity to learn and exchange several skills. By working with Dr. Rosenfeld and the research team that included engineers, medical students, fellows, PhD students, and statisticians, I learned techniques and methods to facilitate research in ophthalmology and developed a critical sense regarding research, manuscript writing, and clinical knowledge. I also had the opportunity to participate in many academic activities, including grand rounds, lectures, congresses, as well as ophthalmology clinics and the operating room. With the practical skills acquired last year, I will share the knowledge with Brazil's academic and social community.



Marcela Lonngi at ARVO

Dr. João Rafael Dias
Ophthalmologist
Medical and surgical retina
Federal University of São Paulo
UNIFESP - Paulista Medical School
São Paulo, Brazil

HONORING EMMETT A. HUMBLE

Chairman Emeritus, Retina Research Foundation

Emmett Humble

Emmett A. Humble was born in Kerens, Navarro County, Texas. He served with the Navy in the Pacific Theater in World War II, and then returned to Texas and married his high school sweetheart, Lorine Crumpler. He entered The University of Texas in Austin, earned Bachelor and Masters degrees, and then went to work for the Humble Oil and Refining Company, now ExxonMobil, in Tyler, Texas. The Humbles returned to Houston in 1971. Mr. Humble's tenure at Exxon included 13 years of Board level service, the last five years as CEO of Esso Exploration, Inc., Exxon's affiliate responsible for international exploration and drilling, and as a Director of Exxon Production Research Company. Upon retirement from Exxon in 1986, he formed a consulting firm, Petroleum Associates International. Mr. Humble is a Life Member of the Board of Directors for the Sam Houston Area Council of the Boy Scouts of America and was awarded the Silver Beaver Award in 1975.

Emmett Humble's interest in Retina Research Foundation began in the early 1970s. In those formative years, the core leadership of the Foundation – Dr. Alice McPherson, John Dawson Sr, Fred Wallace, and Knox Tyson – discussed names of leaders in the community who could be brought on board in support of RRF's mission. Emmett Humble was known for his "aura of leadership," and he was invited to join the Foundation in 1974.

Fred Wallace presenting the RRF Service Award to Emmett Humble in 1979

Mr. Humble was at a dynamic stage in his career with Humble Oil and Refining Company at that time. The old adage "if you want something done, ask a busy person" proved right-on in his case. He came in and showed such enthusiasm right from the start that he was appointed Chairman of the Advisory Trustees. He had exceptional skill in structuring the Foundation in those early years, setting the format for how we operate today. He knew how to bring others into positions of leadership within RRF, how to handle fund-raising and build scientific programs when

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the RRF name was not so well known, and was expert in his executive and administrative ability. Emmett Humble had outstanding judgement in all facets of operations. We are immensely grateful for the decades of service to the Foundation that Emmett Humble so graciously has given.

Leadership Roles with RRF

Chairman, Board of Advisory Trustees *(13 years)*	**1974 - 1987**
Chairman, Managing Board of Directors *(20 years)*	**1987 - 2007**
Chairman Emeritus, Retina Research Foundation *(10 years)*	**2007 - 2017**

Emmett Humble with Dr. McPherson in 1994 at RRF's 25th Anniversary Gala

As Chairman Emeritus, Mr. Humble retained an active role in the scientific and business activities of the Foundation until very recently. Carrying on the fine legacy of service to the Foundation, Mr. Humble's two sons, Deral Humble and Keith Humble, now serve as Advisory Trustees of RRF.

In 2006, Retina Research Foundation named Dr. Louise Strong's project at University of Texas MD Anderson Cancer Center the Emmett A. Humble Research Project in honor of Mr. Humble's 20 years serving as Chairman of the Board of Directors. RRF has supported Dr. Strong's project, "*Genetic etiology of retinoblastoma*," since 1982.

In 2007, Retina Research Foundation endowed a chair at McPherson Eye Research Institute (McPherson ERI) at the University of Wisconsin-Madison in honor of Emmett Humble's outstanding service to RRF. Held by Founding Director Dr. Daniel Albert until 2012, the Emmett A. Humble Distinguished Directorship at McPherson ERI is now held by Dr. David Gamm. Dr. Gamm brings his unique perspective as an innovative scientist-physician to his role as Humble Director of McPherson ERI, whose purpose is to foster scientific collaboration by bringing together researchers and resources with the goal of understanding, protecting, and restoring vision.

Emmett Humble at RRF's 2014 Annual Meeting

"People do not decide to become extraordinary. They decide to accomplish extraordinary things."

Edmund Hillary
Mountaineer and explorer
(1919 - 2008)

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Editor in Chief: Alice McPherson, M.D.
Managing Editor: Margaret Farese

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FOR THE
BLIND OR
HANDICAPPED

Special Remembrances

IN HONOR OF

Suzanne Miller
Joan Kaplan

EMPLOYEE GIVING

YourCause
AT&T employee (anonymous)

ESTATE GIFTS

Charla H. Wilson

Protecting the Retina in Diabetes

The most common eye disease in diabetics is diabetic retinopathy, a blinding disease caused by damage to the blood vessels in the retina. Mara Lorenzi, MD, of Schepens Eye Research Institute and Harvard Medical School, and a team of researchers have recently discovered that an increase in transforming growth factor beta, or TGF-β, may protect against retinal blood vessel damage in diabetes. In this study, scientists blocked the increase of TGF-β in a rat model and found that eliminating this small increase in TGF-β led to retinal vessel damage in the diabetic rat.

"We found that increased TGF-β is really defending the vessels in the retina," said Dr. Mara Lorenzi. "When we took away the small increase in TGF-β, we saw significant damage to the retinal vessels in animals with diabetes. Based on this finding, we'd now like to know if a little extra TGF-β will help protect the retinal vessels in patients with diabetes." The study was published in the American Journal of Pathology.

www.upi.com

RRF accepts credit cards for donations securely online at www.retinaresearchfnd.org
Call the office for more information: 713-797-1925

Additional memorials received will appear in the next issue.