

AO, OCT researchers receive honors in Lisbon



Five ARVO members were among the imaging researchers to receive the prestigious 2012 António Champalimaud Vision Award. At the awards ceremony in Lisbon, from left, Joel Shuman, James Fujimoto, Carmen Puliafito, President of the Champalimaud Foundation Leonor Beleza, President of the Portuguese Republic Aníbal Cavaco Silva, Eric Swanson, David Huang and David Williams. See page 14 for more information on the recipients and the ARVO/Champalimaud Award Lecture at the ARVO 2013 Annual Meeting in Seattle.

Happy Hour offers networking, career advice for young ophthalmologists

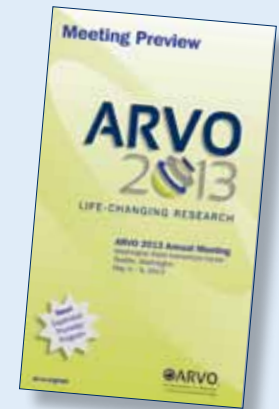


Above: The YO ARVO! Happy Hour at the 2012 American Academy of Ophthalmology Meeting gave early-career ARVO/AAOphth members a chance to network with seasoned scientists and discuss job opportunities in vision research.

Below: AAOphth President Paul Sternberg, Jr., MD, FARVO, does a meet and greet and offers advice at the YO ARVO! Happy Hour. Sternberg is an ARVO member and was a past ARVO Vice President and Trustee. He started his term as AAOphth president in January 2013.



2013 Annual Meeting Preview enclosed



The latest on contract research organizations

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Meet the 2013 Fellows

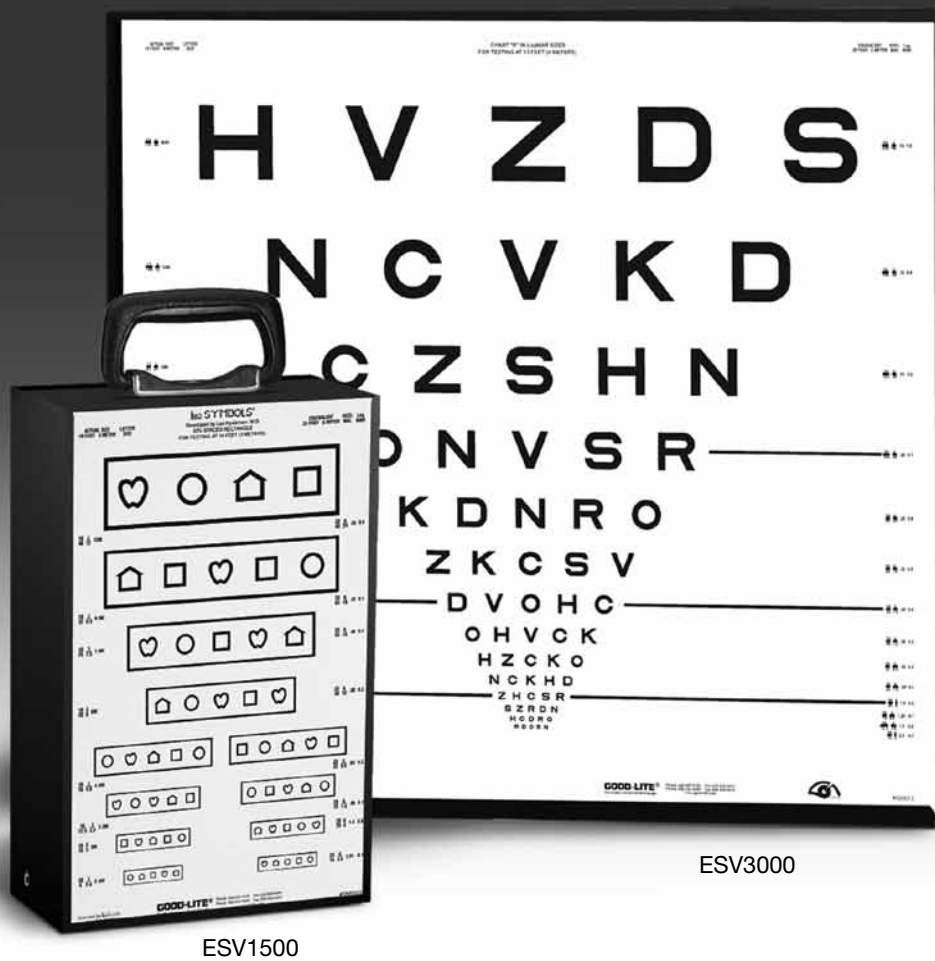
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How does our research change lives?



Peng T. Khaw, MD, PhD, FARVO

One of our most outstanding scientists was thinking aloud the other day. "A hundred years from now, I wonder what difference my research will have made?" he pondered.

This struck a chord with me — and I know it does with my fellow ARVO members, no matter where you are in your career. We all share the desire for our work to make a difference in the world.

And from this comes the theme of the ARVO 2013 Annual Meeting in Seattle, which is life-changing research, in its broadest sense. The Seattle location gives us the opportunity to have not one but three life-changing keynote speakers who embody this theme and who have inspiring stories to tell.

On Sunday, May 5, 2013, we will hear from **Oliver Smithies**, whose career stretches all the way from the introduction of starch electrophoresis to the technique of recombination of transgenic DNA with genomic DNA to altering animal genomes and the technique behind knockout mice and gene targeting, for which he shared the 2007 Nobel Prize in physiology and medicine.

On Tuesday, May 7, **Roger Tsien** will speak about the discovery and development of green fluorescent protein. This has revolutionized the study of biological processes by allowing us to observe the behaviour of molecules in living cells in real time. These techniques have made such a difference to science around the world. He shared the 2008 Nobel Prize in chemistry for this work.

And on the afternoon of Thursday, May 9, we will hear from **Christopher Murray**, who is director of the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, which has long-term funding from the Bill and Melinda Gates Foundation.

The Lancet has just published an entire issue on IHME's Global Burden of Disease Study 2010, which is the largest ever-systematic effort to describe the global

distribution and causes of a wide array of major diseases, injuries and health risk factors, including visual loss. Future vision research may be closely affected by these outcomes.

All around the world research budgets are facing challenges, and it is important for vision researchers to both feel and show that what they do makes a difference. Research provides the excitement of discovery, the skills to carry out new investigations and the prospect of varied careers involving lifelong learning, teaching and stimulation. It provides the basis of what we teach our students in schools and universities, and involves and inspires them in the joy of scientific discovery.


I see this in the researchers from industry and academic institutions who change their own lives and that of many others by their contributions to new techniques and treatments. These developments also create jobs and employment and a stimulus for the economy.

As part of the 2013 Annual Meeting and beyond, ARVO wants to hear your stories — so we are launching a video competition.

We want you to send us a short video about why and how vision research has been life-changing for you, your colleagues, communities or patients.

We hope to compile many of the best videos to show onsite in Seattle throughout the meeting, and we hope ARVO members everywhere can also use them to advocate for vision research. Please visit arvo.org/video2013 for complete information

Research is the core of a better future for us all. I look forward to seeing and hearing about your life-changing research at ARVO 2013. ■



Peng T. Khaw, MD, PhD, FARVO
ARVO President

2012 – 2013

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Giving members what they need

By Mark Petrash, PhD, FARVO



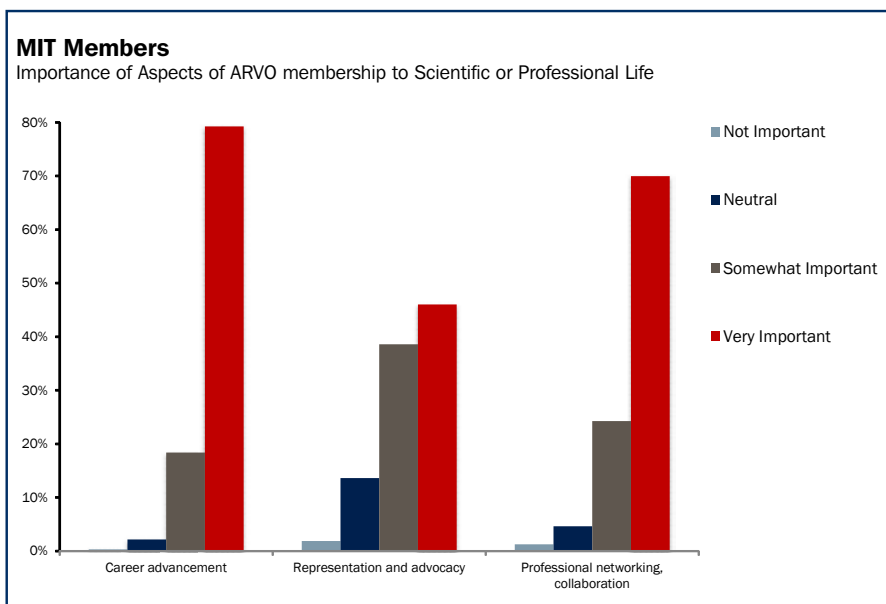
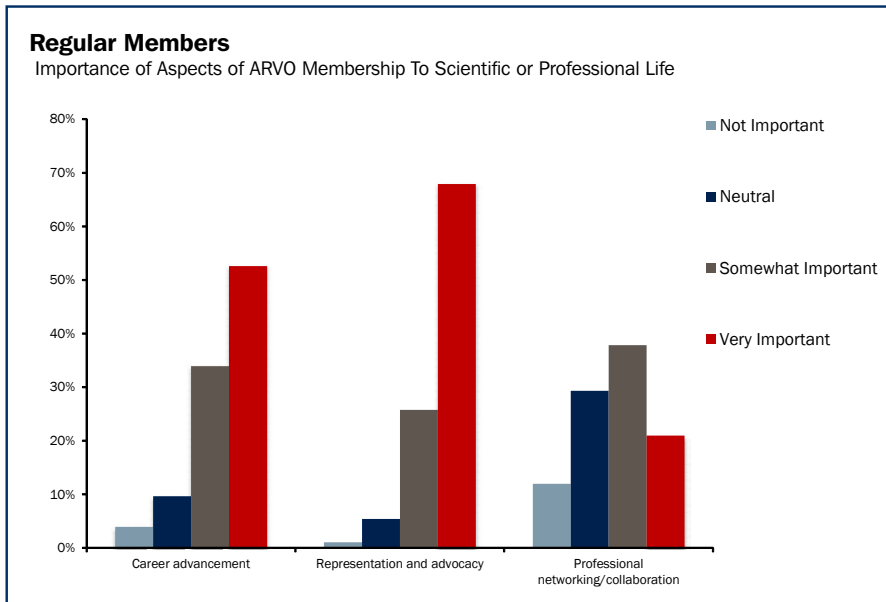
Many of you may be aware that ARVO is in the midst of developing a strategic plan for the organization for 2013 and beyond. We have put together a Strategic Planning Group that includes leading members from around the world and represents different member types and scientific sections.

To start the planning, the committee sought input from a variety of stakeholders to help us identify strengths, weaknesses, opportunities and threats to ARVO and to the vision research enterprise.

We worked with The Kushner Companies (TKC), who served as facilitators to conduct interviews with leaders from peer organizations, domestic and international institutions, and ARVO members who could speak from many perspectives: Members-in-Training (MITs), women scientists, leaders from ARVO's international chapter affiliates, industry representatives and section leaders from our regular membership.

TKC used these stakeholder insights, together with input from staff and members of the ARVO Board of Trustees, to develop an electronic survey that went out to the

The committee sought input from a variety of stakeholders to help us identify strengths, weaknesses, opportunities and threats to ARVO and to the vision research enterprise.

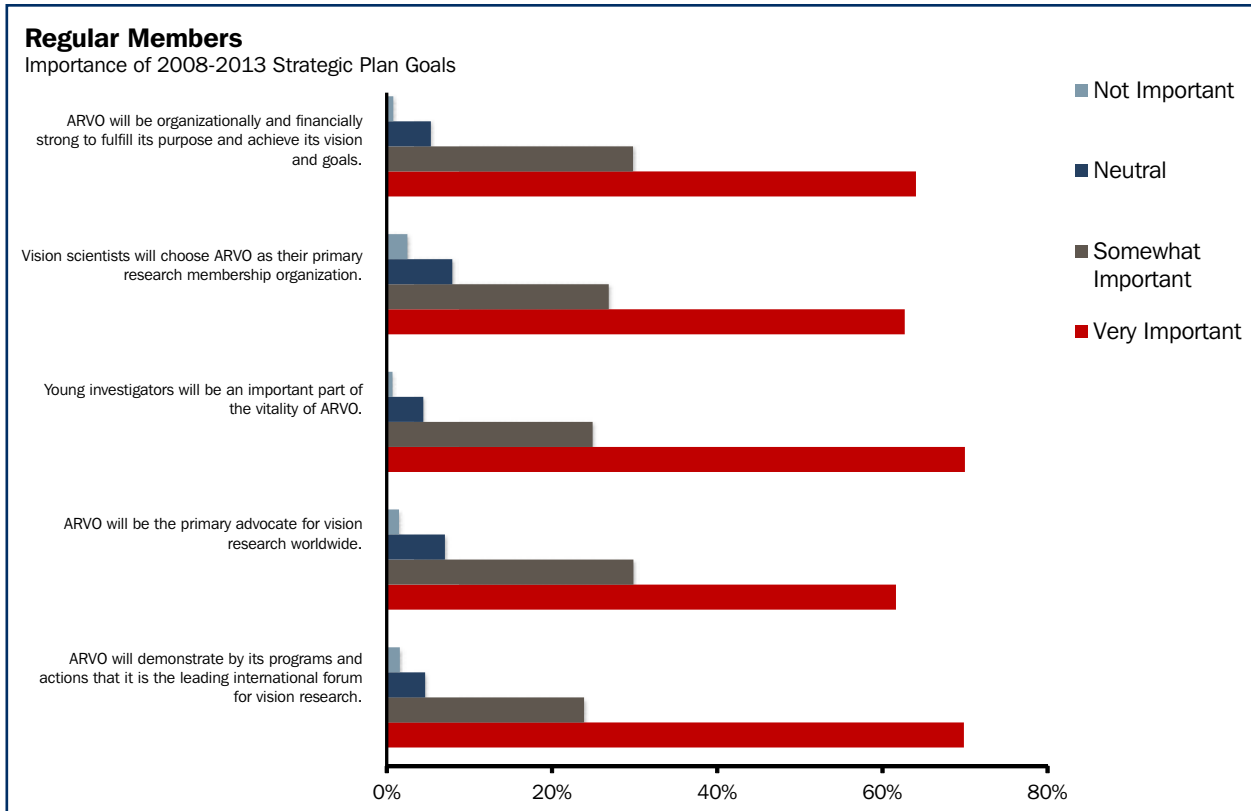


membership in July last year. About 1,600 members took part, corresponding to 15% of our regular members and 8% of MITs.

I would like to focus on two major themes that emerged from this process, as they provided critical guidance to the Strategic Planning Group. How does belonging to ARVO impact the professional and training lives of our members?

To more effectively deliver value to our members, we wanted to know **how ARVO could have a positive influence on their professional lives.**

- Facilitating advancement in members' scientific or professional life was recognized as one of the most important aspects of ARVO membership.
- To our MITs, access to professional networking/collaboration and career advancement stood out as the most important benefit of ARVO membership.



- Representation and advocacy are considered key benefits of membership.

How can ARVO reflect the values and meet the needs of its members?

- Insights into these questions were gleaned from members' responses about how they would rank the importance of ARVO's goals from the current Strategic Plan (2008-2012).
- Members recognize young investigators as being vital to the organization.
- Members value the role of ARVO as their primary research organization and the world's leading forum for vision research.
- Members look to ARVO to lead in advocacy for vision research worldwide.
- Members want an organization that is well-run and efficient.

I think you will see how member input to the survey helped to shape the goals of our new plan, which is in draft form at arvo.org/draft_strategic_plan. Together, we are working to make ARVO even stronger in supporting vision research around the world. ■

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2013 ARVO Trustee candidates

These members have been nominated to stand in the 2013 Trustee election:

Anatomy and Physiology (AP) Section



Sarah E. Coupland, MBBS, PhD, FARVO
Royal Liverpool
University Hospital/
University of Liverpool
Liverpool, UK



Hans E. Grossniklaus, MD, MBA, FARVO
Emory University School
of Medicine
Atlanta, Ga.

Glaucoma (GL) Section



Claude Burgoyne, MD, FARVO
Devers Eye Institute
Portland, Ore.



Carlo Traverso, MD, FARVO
University of Genova
Genova, Italy

Learn more about all the 2013 Trustee candidates at arvo.org/elections. ■

What you've always wanted to know about ARVO elections*

*but were afraid to ask

Voting is an important privilege for regular, sustaining and life members of ARVO. It sets the course both for how the organization is governed as well as for the shape of the scientific program of the Annual Meeting.

But the elections can seem confusing! What are they all about? And who gets to vote for whom? Here's a guide to the process and the 2013 ballot.

Annual Meeting Program Committee

This committee reviews all the abstracts submitted for the Annual Meeting and determines the final scheduling of posters and papers as well as provides important feedback for other parts of the program.

- Each section or cross-sectional group has three representatives, except for the AP, CO and RE sections, which have six members each because of their size. Most AMPC members serve a three-year term; VI Section and NT Cross-sectional Group members serve a four-year term.
- Every spring, each section and cross-sectional group elects a new representative to serve on the AMPC — although the AP, CO and RE sections each elect two members.

Board of Trustees

Scientific sections elect representatives to the Board of Trustees every five years on a staggered basis (this ensures continuity on the Board). Trustee elections follow a two-year cycle:

- Year 1: Candidate Elections
Eligible section members narrow down their nominees for section Trustee to two candidates. These candidates will run in the Trustee elections the following year.
In 2013, the IM, RC and VI sections will choose two candidates each.
- Year 2: Trustee Elections
Eligible section members vote to select one of the two candidates as their section Trustee.
In 2013, the AP and GL sections will elect their new Trustees.

Who can vote?

Remember, to be eligible to vote for or nominate a candidate, you must be a regular, sustaining or life member with your 2013 ARVO membership fees and dues paid no later than Feb. 1, 2013. More information: arvo.org/elections. ■

Get involved and nominate today

IM, RC and VI Trustee nominations and Annual Meeting Program Committee (AMPC) nominations are open until February 11. If you are a regular, sustaining or life member and would like to submit an online nomination, visit arvo.org/elections.

Don't be shy! If you feel you are the best person for the job, there is also an option to self-nominate.

Please note that the same rules apply to nominations as they do to elections. In order to qualify, dues must be paid before Feb. 1, 2013. Also, you can only nominate within your section and cross-sectional groups. For additional information and answers to frequently asked questions, please visit arvo.org/electionFAQs. ■

Highlights from the fall 2012 Board meeting

This past November, the Board of Trustees met in Chicago after the American Academy of Ophthalmology meeting.

As ARVO's incoming executive director (starting January 2013), Sally Atherton delivered her Executive Director Update — a new item for the board meeting agenda.

Trustees discussed corporate involvement in the ARVO Annual Meeting, a new cross-sectional group proposal, the Cogan awards and collaboration request guidelines.

You may have read in the highlights from the 2011 fall meeting that work for the new strategic plan began in spring 2012. Mark Petrash, PhD, who is leading the planning process, delivered a detailed round-up from the Strategic Planning Taskforce's recent retreat. See his article on page 3.

Other presentations included an update from staff on the 2013 Annual Meeting and an update from President-Elect, Justine Smith on the October 2012 European Association for Vision and Eye Research (EVER) meeting. ■

Call for volunteers

Volunteers play a key role in planning ARVO's future. If you have expertise and enthusiasm to share, ARVO urges you to apply to volunteer to serve on an ARVO committee. ARVO committees look for contributions from members-in-training as well as experienced members.

Committee members serve a three-year term and receive points toward ARVO Fellows eligibility. Many members find that committee service provides them with invaluable experience in leadership and teamwork.

ARVO will be accepting applications to serve on an ARVO committee beginning in March 2013. Look for a notice in the Insight e-newsletter or check

arvo.org/committees. ■



2013 Prevent Blindness America Investigator Award

Deadline: March 27, 2013

Apply now for the 2013 Prevent Blindness America Investigator Award, which provides funding for research investigating public health related to eye health and safety.

Applications will be accepted in the following priority areas in adult vision, children's vision or eye injury:

- Burden/economic aspects of eye disease/vision loss on society
- Best practices to integrate vision screening/follow up care to system care access
- Vision program effectiveness/evaluation

All research grants need to promote the core mission of Prevent Blindness America — preventing blindness and preserving sight. Basic laboratory science research will not be supported under this program.

Grants are for a one-year period, up to \$30,000, reviewed by a panel of scientists in coordination with ARVO and commence on July 1, 2013.

For more information, visit preventblindness.org/investigator-awards. Contact Nita Patel, PBA's director of public health, at +1.312.363.6019 or npatel@preventblindness.org with any questions.

Post-ARVO Optometric Cruise Seminar to ALASKA!

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- **The Romantic Danube River Cruise**, July 11 – 18, 7 days, AMA Waterways AmaDolce®. Vilshofen, Passau, Linz, Melk/Krems, Vienna, Bratislava, Budapest. From \$2,799pp cruise only. Optional 3 day pre-cruise stay in Prague \$690 per person. www.amawaterways.com
- **Grand Mediterranean**, July 17 – 29, 12 days, Royal Princess®. Barcelona, Toulon (Provence), Florence/Pisa, Rome (Civitavecchia), Naples (Capri/Pompei), Mykonos, Istanbul, Kusadasi (Ephesus), Athens, Venice. From \$2,299 per person.

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Leaders and volunteers

Dear Members-in-Training ...



Anton Kolomeyer, MD, PhD
New Jersey Medical School

This is a particularly exciting time to be a member-in-training (MIT). For the first time in decades, the ARVO Annual Meeting will be held outside of Florida. Seattle is a bustling, “young,” energetic city with extensive public transportation, not to mention hundreds of available rooms for less than \$100/day. For these and myriad other reasons, the ARVO 2013 Annual Meeting will surely be quite memorable.

One of the most profound experiences thus far of my two-year term as the MIT member of the Board of Trustees has been participating in a Strategic Planning Meeting held in Denver, Colo., in August 2012. This event wholeheartedly reaffirmed my belief that ARVO is in great hands and will continue to thrive for years to come.

The general purpose for this collective “think tank” was to examine the growth and development of ARVO as an organization and to discuss what it should aim to achieve in the near future. After two days of intense deliberations, I began to understand and truly appreciate the depth of planning required for each of ARVO’s missions and events. Planning strategies based on economic and scientific trends, identifying revenue streams and balancing the budget, conducting site visits to secure contracts with host cities and hotels, and hosting special interest programs (i.e., specific to MITs, international members, women) are, although time-consuming, paramount to ARVO’s success.

The MIT Board of Trustees position is an incredible opportunity for a medical/graduate student, postdoc or resident. Attending meetings, participating in planning sessions, interacting with leaders in multiple subspecialties, and getting a “behind the scenes” look at the operations of this impressive organization are just some of the “perks” of the job.

For these and many other reasons, I encourage all MITs who are truly committed to this organization to apply for the Board of Trustees position in a few months’ time. I certainly plan to use what I have learned in my pursuit of an academic career after completing ophthalmology residency training at the University of Pittsburgh Medical Center.

With warm regards,

Anton M. Kolomeyer, MD, PhD ■

Why volunteer?



Pedram Hamrah, MD
Harvard Medical School/
Massachusetts Ear and Eye Infirmary

Pedram Hamrah, MD

- Members-in-Training Committee
- Professional Development and Education Committee

As a resident of ophthalmology, I wanted to become more involved in ARVO in terms of planning as well as education. I wanted to take the knowledge from Members-In-Training and bring it to the Professional Development and Education Committee. I wanted to contribute to some of the needs on that committee and try to see if I could

help the educational components be tailored in a way that would benefit the regular audience of ARVO.

I think it’s a great experience to give back to what you get from these societies and meetings. You have an opportunity to create change within the organization and the ARVO Meeting, and if someone is interested, they can really make significant changes. I’ve been encouraging many of my colleagues; the broader the membership is within each committee the better we can address the needs of the different types of member we have within ARVO.



Mary Elizabeth Hartnett, MD
University of Utah

Mary Elizabeth Hartnett, MD

- Chair-elect, Ethics and Regulations in Human Research Committee
- WEAVR Networking Committee
- Annual Meeting Program Committee

I think ARVO is a great organization. I’ve been in it for almost 25 years, and it continues to improve. It’s become more organized; it gives opportunities for really good research, as well as

for people to get feedback on early research. I think there are many ways that it’s been beneficial. Committees that have formed bring in other aspects of science that are very important, like ethics for example, or women networking, or the opportunity to put together programs that would be of interest to people.

The Ethics Committee is really looking at ways to remind us to have good behavior in science. During this time when we have a reduction in funding it just becomes even more important to make sure that the behavior we use when we conduct science is ethical, because it’s easy to have a slippery slope, especially when times are tough. ■

Committee update

Advocacy

- The May 2012 workshop “Advocacy Really Matters” is available as a video on demand (free to members) through ARVO’s online learning portal at arvo.org/videos.
- ARVO sent a letter summarizing members’ concerns on the proposed tracking of trainees to NIH. This is available on the ARVO Research Advocacy web page. NIH sent a response to the listed concerns back to ARVO, and we posted these on the Research Advocacy page as well.

Animals in Research

- The committee revised the “Importance of Animals in Vision Research” and “Statement for the Use of Animals in Ophthalmic and Vision Research” statements. Look for them soon on the ARVO website.
- A new toolkit will replace the *Handbook for the Use of Animals in Research*.
- The 2013 workshop topic is: “Life Changing Impacts of International Extremism on Animal Research.”

Awards

- Convened by conference call in April 2013 for final review and evaluation of the nominations for the 2013 ARVO Achievement and Camras Awards.
- In November, the committee put forth their 2013 awards recommendations for approval by the Board of Trustees.

Commercial Relationships

- Sponsoring a workshop “For Me, or Not For Me: That Is the Question — Industry Funding for Research and Education” for the 2013 Annual Meeting.
- The group is also offering a course on Saturday, May 4, “Early-Stage Startup Companies: Strategies for Entrepreneurship in Ophthalmology” in Seattle the day before the Annual Meeting.
- Currently reviewing how to best display commercial relationship information during Annual Meeting presentations.

Continuing Medical Education

- Looking to expand offerings for CME to members including e-posters and online educational opportunities, particularly in the following topics: institutional review boards, informed consent, surgical techniques, clinical trials and new drug development.

Diversity Issues

- Organizing a new workshop for ARVO 2013: “Managing Your Research, Teaching and Service,” co-sponsored by the Members-in-Training Committee.
- The ARVO Board of Trustees has approved the continuation of the ARVO High School Vision (Outreach) Program at ARVO 2013.
- Laura Robles (previous DIC chair) and Andrew Tsin (current DIC chair) attended the SACNAS meeting in Seattle, Wash., in October 2012. Emily Sales was selected for presenting the best poster on vision research. Sales will present her research project at the ARVO 2013 Annual Meeting.

Ethics and Regulations in Human Research

- Sponsoring a workshop “From Stolen Ideas to False Data: Shining a Light on Scientific Misconduct” at the 2013 Annual Meeting. The workshop includes several high-profile speakers, including John Dahlberg, the director of the Division of Investigative Oversight for the Office of Research Integrity.

International Members

- Looking at ways to increase funding for international research.
- Providing input to staff on the impact of moving the Annual Meeting for international attendees.
- Will be working with ARVO staff to update the *International Advocacy Handbook* in the coming year.

Members-in-Training

- Revised the committee description to more accurately reflect current activities.

- Will continue to host a first-time attendee table at the 2013 Annual Meeting.
- Organizing two Pizza with the Experts sessions at the 2013 meeting.
- Sponsoring the “Clinician-Scientist Forum: How to Become a Successful Clinician-Scientist,” and the Members-in-Training Career Forum.

Professional Development and Education

- Looking at different ways to increase and improve educational opportunities for members. Ideas include online education, session capture and live stream. The committee is dedicated to increasing the number, quality and consistency of education and professional development programs offered by ARVO.

Publications

- Sponsoring the workshop “Getting Published: The Good, the Bad and the Ugly” at the 2013 Meeting.
- Currently reviewing the subject of open access and how ARVO could respond to possible changes in federal policy.
- Also looking at issues such as plagiarism and author sanctions. ■

Clarification: Extremists vs activists

In the Summer/Fall 2012 issue of *ARVONews*, we referred to “animal terrorists” in an article about a new toolkit the Animals in Research Committee has developed. The term “terrorist” in this sense does not refer to animal rights activists in general. It refers to extremists, ie, those who harass researchers (who are complying with internationally accepted standards in the use of animals in research) in a threatening manner, those who use threats of violence to attack researchers and/or those who actually carry out violent attacks. ■

Asia ARVO

Innovating and Converging Technologies in Vision Research

28-31 October 2013 | New Delhi, India

Welcome!

On behalf of ARVO, its India International Chapter Affiliate — the Indian Eye Research Group (IERG-ARVO-IC) — and the Ophthalmic Research Association of the Dr. Rajendra Prasad Centre for Ophthalmic Science, All India Institute of Medical Sciences, New Delhi (ORA-RPC), we are delighted to host Asia-ARVO 2013 at the historic city of New Delhi, the capital of India, during October 28-31, 2013.

The announcement of this meeting has already met with an enthusiastic response from all corners of the globe, as vision researchers express interest in participating in this biennial vision research event.

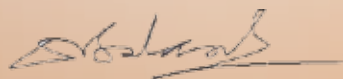
Asia-ARVO 2013 brings together the best in vision research, amalgamating basic and clinical science, taking bench-top work to the bedside and onwards to the community. We are arranging a comprehensive academic program in which acknowledged experts in vision sciences will interact with young innovators and researchers, the leaders of tomorrow. We have therefore chosen the theme of Asia-ARVO 2013 as “Innovating and Converging Technologies in Vision Research.”

Asia-ARVO 2013 boasts of several “firsts,” such as live surgeries, wet labs, sessions for paramedical professionals in ophthalmic care, and an “India Gate” session for posters. It will be a knowledge hub for the integration of expertise from all over Asia and around the world, with something for everyone. We hope you will seize the opportunity to be part of this prestigious event. In keeping with the tradition of encouraging scientists and ophthalmologists in training, we plan to have as many as 50 travel grant awards to young vision scientists.

We invite you to mark 28-31 October 2013 on your calendar to join us in New Delhi. For more detailed information, please visit arvo.org/asiaarvo.



Craig E. Crosson
ARVO



D. Balasubramanian
IERG-ARVO-IC



Rajvardhan Azad
ORA-RPC

Topics

- Stem cell biology
- Stem cell-based therapies
- Reprogramming and regeneration
- Gene therapy
- Small molecule screening and drug discovery
- Model organisms
- Eye development
- Inherited eye diseases
- Genetics of AMD
- Understanding AMD
- Diabetic retinopathy: Recent advances
- Recent advances in glaucoma
- Common eye diseases: What is new?
- Lens: what don't we know yet?
- Gene regulation during development and disease
- Signaling pathways
- Angiogenesis
- Crystallins, chaperons and heat shock proteins
- Oxidative stress: Is it responsible for all advanced age diseases
- Aging and eye disease
- Anti-oxidants: A cure for all ills
- Epidemiology of eye diseases in developing countries
- Infections and eye disease
- Vision beyond retina: Processing of visual information
- Physiology of vision
- The eye and systemic diseases

Proposed/Confirmed Speakers

- Dr. Anand Swaroop
- Dr. Radha Ayyagiri
- Mr. Christopher Brand
- Dr. Nachiketa
- Dr. Gyan Prakash
- Dr. K.S. Reddy
- Dr. Paul Sieving
- Prof. Donald Tan
- Dr. Aung Tin
- Prof. Susumu Ishida
- Prof. Janet Sparrow
- Prof. C.P. Pang
- Dr. Gislin Daniele
- Dr. Terri Young
- Dr. Jodhbir Mehta

Key dates

March 30
Abstract submission opens

April 27
Registration opens

May 23
Abstract submission closes

October 14
Early registration deadline

For more information
or to register, see

arvo.org/asiaarvo

Registration rates	Early registration	Late registration	On site registration
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Indian delegates

India Eye Research Group (IERG) member	Rs 4,000/-	Rs. 5,000/-	Rs. 6,000/-
Non IERG members	Rs:5,000/-	Rs. 6,000/-	Rs. 7,000/-
Member-in-training	Rs. 2,000/-	Rs. 2,500/-	Rs. 2,500/-

Non Indian Delegates

ARVO member	US \$375	US \$425	US \$475
Non ARVO member	US \$425	US \$475	US \$500
Member-in-training	US \$175	US \$225	US \$225



CHAPTER AFFILIATE

ARVO-NED — affiliated 2008
Nijmegen, the Netherlands
oogheelkunde.org

Asociación de Investigación en Visión y Oftalmología (AIVO) — affiliated 2007
Buenos Aires, Argentina
aivo.com.ar

Austrian Association for Research in Vision and Ophthalmology (AARVO) — affiliated 2009
Vienna, Austria

Brazilian Research Association of Vision and Ophthalmology (BRAVO) — affiliated 2006
São Paulo, Brazil

Chinese Congress of Research in Vision and Ophthalmology (CCRVO) — affiliated 2010
Beijing, P.R. China

Colegio Nacional de Investigación en Ciencias Visuales (MARVO) — affiliated 2010
Mexico City, D.F., Mexico
mexarvo.org

Hungarian Association for Research in Vision and Ophthalmology (HARVO) — affiliated 2007
Budapest, Hungary
harvo.org

India Eye Research Group – ARVO (IERG-ARVO) — affiliated 2011
Hyderabad, India

Israel Society for Vision and Eye Research (ISVER) — affiliated 2006
Jerusalem, Israel

ARVO Italy (IT-ARVO) — affiliated 2011
Catania, Italy

South-East European Association for Research in Vision and Ophthalmology (SEE-ARVO) — affiliated 2009
Sofia, Bulgaria ■



See arvo.org/affiliates

AIVO hosts Ninth annual meeting

The Argentinean Association for Research in Vision and Ophthalmology (AIVO) held its ninth annual research conference last November in Buenos Aires. This meeting brought together nearly 130 clinical and basic researchers in the field of ophthalmology, who belong to research groups around the country. The meeting consisted of plenary lectures and over 40 presentations from those who submitted abstracts, allowing colleagues from across Argentina to analyze and discuss the results of their work.

The plenary lectures were given by international guests Valeria Canto Soler, PhD, and Paulo E. Stanga, MD. Canto Soler is assistant professor of ophthalmology and director of the Retinal Degenerations Research Center at the Wilmer Eye Institute at Johns Hopkins University, Baltimore, Md. She spoke about her research on the mechanisms that control the behavior of retinal progenitor cells, which might allow the design of regenerative therapeutic strategies for the treatment of retinal degenerations.

Stanga is associate professor of ophthalmology at Manchester University, U.K., and consultant ophthalmologist and vitreo-retinal surgeon at Manchester Royal Eye Hospital, Central Manchester and Manchester Children's University Hospitals NHS Trust. He specializes in the medical and surgical treatment of vitreo-retinal disorders such as AMD, including anti-VEGF therapy, diabetic retinopathy and maculopathy, retinal vein occlusions, macular hole and retinal detachment. Stanga is also pioneering surgery for artificial vision

in blindness that includes electronic epiretinal prosthesis implantation or the "bionic eye." At the meeting, he spoke about the outcome of Argus II epiretinal electronic implant for blindness in retinitis pigmentosa, as well as the advances in OCT.

Invited speakers for the meeting's symposium on the Role of Stem Cells and the Regulation of the Cell Cycle in Retina were Marcelo Zas, MD, PhD; Maria Paula Faillace, PhD; Luis Enrique

Politi, PhD; and Canto Soler. They discussed their data, the latest advances and the challenges that remain for the successful use of stem cells to treat retina regeneration.

At the end of the meeting, the executive committee assessed the progress of the Association and discussed the ambitious project to organize a joint meeting in 2013 with another ARVO chapter affiliate, Brazilian Research in Vision and Ophthalmology Association, to foster interactions and promote collaboration between research groups from both countries working in the field of ophthalmology. This is scheduled to be held in Rio de Janeiro on August 10 within the frame of the 30th Pan-American Congress of Ophthalmology. ■



AIVO President Juan Gallo, MD, PhD



From left, Florencia Braga Menendez (Copidis), Dr. Paulo Stanga of Manchester University, Legislator Morales Gorleri, Dr. Canto Soler of Johns Hopkins University and AIVO President Juan E. Gallo. Soler and Stanga were awarded Outstanding Scientific Personalities by the Buenos Aires City Legislature.

Italy affiliate hosts first meeting, prepares for new year

After becoming an international chapter affiliate in 2011, IT-ARVO hosted its inaugural annual meeting and organized the European Frontiers in Ocular Pharmacology (EFOP) lecture in 2012.

Their first meeting was in Catania, Italy, last February and the plenary lecture was delivered by executive vice president of ARVO Craig Crosson, PhD, FARVO. The EFOP took place at the School of Medicine of Catania University, Italy. To be held once a month from November through June each year, this CME course will include a one-hour lecture by an outstanding scientist, plus a 30-minute Meet the Expert session. The course targets PhD students, post-docs and residents in pharmacology and ophthalmology, as well as ophthalmologists.

Upcoming events include the 2013 IT-ARVO annual meeting Feb. 1 – 2, and the next EFOP lecture in the series ending June 7, 2013. The annual meeting highlighting “Ocular

Pain” will include a plenary lecture delivered by Carlos Belmonte, MD, FARVO, from the Miguel Hernández-Consejo University, Alicante, Spain. Many distinguished scientists in the field of eye research will serve as speakers, including Frank Giblin, PhD, FARVO, of Oakland University, Rochester, Mich.; Friedrich Paulsen, MD, of University of Erlangen-Nuremberg, Erlangen; and Anselm Kampik, MD, FARVO of Ludwig Maximilians University, Munich.

These events are promoted by the president of IT-ARVO, Filippo Drago, MD, PhD, and the vice president Teresio Avitabile, both professors at the University of Catania. Claudio Bucolo, PhD, who serves as secretary and treasurer, organizes the scientific program. ■



IT-ARVO President Filippo Drago, MD, PhD



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Imaging sweeps 2012 Champalimaud Award

Five ARVO members received the prestigious 2012 António Champalimaud Vision Award: James Fujimoto, PhD; David Huang, MD, PhD; Carmen Puliafito, MD; Joel Schuman, MD, FARVO; and David R. Williams, PhD, FARVO. Eric Swanson, MS, was also a recipient. The researchers were acknowledged for the development of two novel approaches to visualizing the living human retina in health and disease.

Optical coherence tomography (OCT) was developed by merging the low coherence interferometry methodologies of Fujimoto, Huang and Swanson with insights for their clinical application by Puliafito and Schuman. By revealing the human retina at remarkable resolution, OCT has already led to improved diagnostics and clinical management.

Williams' application of adaptive optics technologies to the eye brings retinal cells into sharp focus by correcting for natural optical imperfections of the cornea and lens, making it possible to view and count

individual cone photoreceptors in the living human retina. This has dramatically advanced the ability to probe the dimensions of the cone spacing matrix, a limiting factor in visual resolution. Imaging individual cones non-invasively over weeks, months and years is providing novel insights into retinal changes caused by aging and disease.

In their own words

David Huang, MD, PhD (Weeks Professor of Ophthalmic Research and a professor of ophthalmology and biomedical engineering, Oregon Health & Science University)

“My fellow recipients and I developed the original OCT technology and initiated the approaches that led to widespread applications in retinal diseases, glaucoma and anterior segment surgery. Some of us also participated in improving the technology that include about a tenfold improvement in resolution and a thousand-fold improvement in speed, plus myriad innovations in image contrast and segmentation. All these efforts made it possible for OCT to become the most commonly used imaging test in ophthalmology.”



David Huang, MD, PhD

What next?

“This award is a great boost for morale in my research group — to know that our work is important and recognized. A major new focus in our work is to make functional OCT as successful as structural OCT. And the functional image contrast that we are working on include Doppler OCT for retinal blood flow measurement and OCT angiography for the assessment of ONH, retinal and choroidal microcirculation.”

Joel Schuman, MD, FACS, FARVO

(Eye & Ear Foundation Professor and Chairman, Department of Ophthalmology; director of the UPMC Eye Center;



Joel Schuman, MD, FACS, FARVO

professor of bioengineering; Glaucoma Service, University of Pittsburgh School of Medicine)

“Our collaboration invented the medical imaging modality of optical coherence tomography (OCT) and developed OCT into

a practical clinical tool that has become a standard of care in ophthalmology for the diagnosis and treatment of the most important blinding diseases of the industrialized world: macular degeneration, diabetic retinopathy and glaucoma.

“OCT is considered a standard of care in ophthalmology. It is now the most commonly performed ophthalmic diagnostic procedure, with millions of procedures performed annually. OCT played a major role in the development of pharmacotherapy of retinal diseases such as macular degeneration and diabetic retinopathy, since it is the most useful tool to assess therapeutic response. OCT is used globally in the detection and management of glaucoma. OCT provides high resolution images of the retina, optic nerve and anterior eye that are impossible to obtain *in vivo* by any other non-invasive method and plays a key role in clinical and vision research. OCT enables understanding of disease pathogenesis, 3D visualization, quantitative measurement and mapping of structure, and repeated assessment to evaluate progression of disease and response to therapy. OCT is a critical tool for accelerating the pace of ophthalmic research as well as providing clinical care.”

What next?

“The Champalimaud Award is a tremendously prestigious prize. The funds provided by the Champalimaud Foundation will permit further exploration, invention and translation in ocular OCT. Through these discretionary research monies projects riskier than those usually funded by NIH will be possible, and can provide preliminary data for future NIH funding.”



ARVO 2013 Annual Meeting — Seattle

ARVO/Champalimaud Award Lecture

Tuesday, May 7, 7 – 8:30pm

David Williams and James Fujimoto

The 2012 António Champalimaud Vision Award recognizes the development of two novel approaches to visualizing the living human retina in health and disease: optical coherence tomography (OCT) and adaptive optics technologies (AO). Award winners Fujimoto and Williams will discuss their research and implications on future therapies.



David Williams, PhD, FARVO

David Williams, PhD, FARVO (William G. Allyn Chair of Medical Optics; director of the Center for Visual Science; professor of optics, ophthalmology, biomedical engineering, and brain and

cognitive sciences), University of Rochester

“One of the remarkable things about our discoveries in adaptive imaging (AO) is that AO ended up having ramifications in two completely separate areas. First, AO corrects aberrations, which means people can see better. This theory was around for a long time before my colleagues and I came along, but we were able to change the way mainstream optometry thinks about defects in the eye.

“AO is also being used worldwide in refractive surgery and to design new intraocular lenses and contact

lens. It’s transformed the whole field of vision correction. And you can correct aberrations of light leaving the eye, so you can take pictures with great accuracy.”

What’s next?

“Receiving the Champalimaud Award is huge because it gives me license to do high-risk experiments that I normally never would be able to do. I hope to be able to generate the kind of pilot data that I need to work toward the next generation of technology. AO is one of a whole spectrum of possible tools in combination with each other to learn about the normal as well as the diseased retina. I believe we will be able to push AO to its limits, with methods like fluorescence imaging and photon imaging. AO has dealt with aberrations, but defraction is still a source of blur. We have some ideas about this and some day may be able to beat the defraction barrier. We can begin that exploration with these funds.” ■



Achievement Awards 2014 Call for Nominations

For younger investigators

- **Cogan Award** — Recognizes a researcher who is 40 years of age or younger at the time of nomination, and who has made important and worthwhile contributions to research in ophthalmology or visual science that are directly related to disorders of the human eye or visual system, and who shows substantial promise for future contributions.
- **ARVO Foundation/Pfizer Ophthalmics/Carl Camras Translational Research Awards** — Recognizes early career researchers, no more than 45 years old, who exhibit excellence in research, scientific discoveries, concepts and novel technologies that have led to, or have the promise to lead to, clinical applications.

For long-term career achievement

- **Proctor Medal** — Honors outstanding research in the basic or clinical sciences as applied to ophthalmology.
- **Friedenwald Award** — Honors outstanding research in the basic or clinical sciences as applied to ophthalmology.
- **Weisenfeld Award** — Recognizes distinguished scholarly contributions to the clinical practice of ophthalmology.
- **Kupfer Award** — Honors distinguished public service on behalf of eye and vision research.
- **Special Recognition Award** — Honors outstanding service to ARVO or the vision research community.
- **Joanne G. Angle Award** — recognizes outstanding leaders who have made significant continuous contributions to ARVO.

Deadline is March 1, 2013.

Nominations must include a detailed nomination letter, a CV and three brief letters from colleagues who support the nomination. Details and eligibility forms can be found at arvo.org/awards.

Meet the FARVO Class of 2013

Congratulations to the 33 members who have achieved the status of Fellow of ARVO (FARVO) for 2013 — either as a new Silver Fellow or moved up to the rank of Gold Fellow. The title of ARVO Fellow is an honor that recognizes current members for their leadership and contributions to the Association.

Eligibility for the Fellow designation is determined by a point system established by the ARVO Board, under which members are awarded points for participation in the activities.

Read more at arvo.org/awards/fellows.

Silver Fellows

Neeraj Agarwal
Ales Cvekl
M Elizabeth Hartnett
Mineo Kondo
John Landrum
Beryl Ortwerth
Austin Roorda
Sayon Roy
Jose Sahel
Mansoor Sarfarazi
David Sullivan

Masayo Takahashi
David Williams
Tien Wong

Gold Fellows

Pablo Artal
Dirk-Uwe Bartsch
Roger Beuerman
Michelle Callegan
Usha Chakravarthy
Craig Crosson
Reza Dana

C. Ethier
Anne Fulton
Maria Grant
James Handa
Renu Kowluru
Vincent Lee
J. Nickerson
Cynthia Owsley
Stephen Pflugfelder
Justine Smith
W. Daniel Stamer
John Werner ■



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New online: “How to Get Published” course; Annual Meeting sessions

Take advantage of several exciting online learning opportunities that are free for ARVO members!

“An Introduction to Getting

Published in Scientific Journals” is a self-paced course that you can use at your own speed from your computer or laptop, or even from a mobile device if you prefer to learn on-the-go. This course, free to ARVO members (\$79 for nonmembers) has been developed for authors who are non-native English speakers and are from economically emerging countries. The course focuses on major elements of scientific writing and publishing, including how to prepare to write an article, and where, when and how to get your paper published.

You can also access recorded sessions from Annual Meetings, 2009 – 2012. Sessions include ARVO/Alcon Keynotes, IVAN/CATT study results, symposia, workshops and award lectures. Visit www.prolibraries.com/redeem to get started. When prompted, enter the conference code ARVOACCESS, then create a ProLibraries account to get the recordings. You must be logged into ProLibraries for full access to the videos.

For more information, visit arvo.org/online_education. ■

IM section members present young investigator awards

The Raniyah Ramadan Award, now in its second year, will be given to the **best ocular microbiology** poster or paper presentation at the ARVO Annual Meeting. This award honors the memory and scientific contributions of our colleague and friend, Dr. Raniyah Ramadan, who passed away in 2011 following a hard fought battle with cancer. Dr. Ramadan’s family is recognizing her enthusiasm for vision research by providing this award to young investigators attending ARVO, a meeting at which Raniyah presented and enjoyed attending the past several years.

The Cora Verhagen Prize was instituted in 1995 to honor the memory and scientific contributions of our colleague Cora Verhagen by awarding the **best ocular immunology** poster or paper presentation at the ARVO Annual Meeting. The award is supported by Cora’s family and donors to the Verhagen fund at the Streilein Foundation of Ocular Immunology.

These awards are judged independently at the ARVO 2013 Annual Meeting and will be awarded at the ARVO 2014

Annual Meeting in Orlando. The first prize winners will each receive an award of \$250, a traveling plaque with their names inscribed along with those of previous awardees and a bronze medallion. The second prize winners will each receive an award of \$150.

Applicants must be a trainee graduate student or postdoctoral fellow presenting a first author poster or paper at the ARVO 2013 Annual Meeting in an IM sponsored session. Excluded are individuals with permanent faculty appointments, employees of companies or those who received their doctorates more than three years ago.

To apply, email by April 6 your name, institute, the name of your mentor and the title of your ARVO presentation. Place the name of the award (Ramadan or Verhagen) in the subject line.

Raniyah Ramadan award in microbiology:
Michelle C. Callegan at
Michelle-Callegan@ouhsc.edu

Cora Verhagen award in immunology:
Andrew W. Taylor at
awtaylor@bu.edu ■

The full value of vision research and the NEI Audacious Goals Initiative

You are probably familiar with the NEI Challenge to Identify Audacious Goals in Vision Research and Blindness Rehabilitation, part of the larger NEI Audacious Goals Initiative, which aims to promote innovation in vision research.

When NEI set out to create a list of audacious goals for vision research, we were interested in identifying bold new ideas that we could import from a range of disciplines to align with the NEI mission: to conduct and support research and other programs aimed at reducing the burden of vision disorders and disease worldwide. Vision researchers embraced the initiative, and we are indebted to ARVO and its members for supporting the effort so enthusiastically. But what has struck me repeatedly is the role that vision research plays in scientific discourse in general. Simply stated, the broad scientific community may have as much to gain from Audacious Goals as will vision science.

For example, vision researchers recently found that peptides cleaved from corneal epithelial cytokeratin have strong antimicrobial properties. The discovery helps explain why the normal cornea is so resistant to infection and suggests potential avenues for the development of new antibiotics, not only for corneal infections but for infections elsewhere in the body. This is an increasingly important area of research in our present era of emerging antibiotic-resistant superbugs.

That vision researchers are drivers of innovation is, of course, nothing new. Vision scientists were the first to make use of the International HapMap, an extension of the Human Genome Project that charted normal human genetic variation. In 2005, researchers discovered that complement factor H gene variants influence age-related macular degeneration risk. Vision researchers are also pioneering gene therapy and stem cell therapeutics. The 2008 trials for the inherited retinal disease Leber congenital amaurosis are counted among the first major successes for gene therapy. Vision researchers were the first to treat humans with cells derived from embryonic stem cells. Several groups are now close to

initiating clinical trials to treat eye diseases with cells derived from induced pluripotent stem cells.

Vision researchers are also blazing the frontier of clinical imaging. Optical coherence tomography (OCT), an imaging tool now in standard use in ophthalmology, is being adopted by researchers to evaluate tissues in other areas of the body. Researchers recently demonstrated the use of OCT to localize shear stress in the hearts of developing chicken embryos, with the overall goal of better understanding and preventing congenital heart defects.

Vision researchers are now expanding OCT and other imaging modalities to the next level by incorporating adaptive optics (AO) — a technology pioneered by astronomers to reduce optical distortion and enhance image resolution in telescopes. Vision researchers recently demonstrated in humans the use of adaptive optics scanning laser ophthalmoscopy to detect subclinical signs of diabetic retinopathy, such as the presence of microaneurysms.

These examples illustrate the innovativeness of vision researchers and underscore the enormous contributions vision science is making to other disciplines. As with all good research, collaboration is at the heart of the Audacious Goals Initiative.

By the time this column is published, the NEI will be gearing up for the Audacious Goals Development Meeting (nei.nih.gov/AGmeeting), Feb. 24 – 26, 2013, where we will discuss ideas generated through the Challenge. I eagerly anticipate hearing many novel ideas for vision research, and I suspect many will be transferable to other fields. ■



Paul A. Sieving, MD, PhD, FARVO
Director, National Eye Institute
National Institutes of Health

Simply stated, the broad scientific community may have as much to gain from Audacious Goals as will vision science.



Six-month continuing resolution funds NEI at FY2012 level

On September 28, President Obama signed the six-month Continuing Resolution (CR) that funds most government operations at the FY2012 level until March 27, 2013.

Although the CR had an across-the-

As a result, NIH and NEI are funded during the CR at the FY2012 level (per the funding chart, the net of a 0.189% rescission), or \$30.64 billion and \$702.7 million, respectively. This assumes that the NIH's Office of AIDS Research will not transfer \$8.2 million from the NEI due to the dissolution of the Cytomegalovirus (CMV) retinitis clinical trials, as proposed in the President's FY2013 budget and the Senate's FY2013 Labor, Health and Human Services, and Education spending bill. The House bill is silent on this transfer.

On October 11, NIH released guidance that non-competing grants would be funded at 90% until FY2013 appropriations are finalized, in line with past policy during CRs, and that the extramural grant salary cap would remain at Executive Level II (\$179,700), the FY2012 level.

At press time, appropriators were finalizing an omnibus spending bill, although timing on that is uncertain. ■

	FY2012 Final	FY2012 of .189% net Rescission	FY2013 President's Budget	FY2013 Senate	FY2013 House
NIH*	\$30.7B +1%	\$30.64B +.81%	30.6B 0%	30.7B +0.3%	\$30.6B 0%
NEI	\$704.04M +.46%	\$702.71M +.27%	\$693.01M -1.2%	\$695.1M -0.9%**	\$701.8M -0.01%

* Program level — Net of transfers

** \$8.9M cut due to dissolution of CMV Retinitis study; Senate adds \$2M

board spending increase of 0.612%, Office of Management and Budget (OMB) guidance stated that each federal agency would only receive an increase if requested. To date, the Department of Health and Human Services has not made a request on behalf of NIH.

NIH names NCATS director



New NCATS Director Christopher Austin, MD

Christopher Austin, MD, is the new director of the National Center for Advancing Translational Sciences (NCATS). He succeeds NCATS Acting Director Thomas Insel, MD, who continues to serve as the director of the National Institute of Mental Health.

Austin, who previously served as director of the NCATS Division of Pre-Clinical Innovation, received his medical degree from Harvard Medical School, where he performed a fellowship in developmental genetics of the retina. His first NIH grant was a Clinician-Scientist Award from the NEI.

The announcement was made at the first meeting of the NCATS Advisory Council, which was held jointly with the Cures Acceleration Network (CAN) Review Board. Both entities were legislatively mandated, and the CAN program resides within NCATS.

Insel noted that NCATS's mission is to find a "different way of doing business" as it relates to the translation of basic research into diagnostics and therapeutics, which includes drugs, devices and biologics. Although NCATS will serve as a catalyst for collaborations and can develop the infrastructure and support for clinical trials, it may not conduct these past Phase IIA.

Specific goals include addressing the bottlenecks in translation, engaging the advocacy community as it relates to the NCATS portfolio, and developing collaborations within and outside of the NIH. ■

Clayton heads NIH Office on Women's Research

Janine Austin Clayton, MD, FARVO, is the new director of the Office of Research on Women's Health and the associate director of Research on Women's Health.

Formerly the deputy clinical director at NEI, Clayton has spoken on Capitol Hill on behalf of AEVR and the Vision 2020/USA on aging eye research and the global burden on women from eye disease.

At the September 5 NIH Council of Councils meeting, Mae Gordon, PhD (Washington University School of Medicine), concluded her

three-year term as the National Advisory Eye Council's (NAEC) representative to the Council. NEI will shortly announce the new NAEC representative. ■



Janine Clayton, MD, FARVO, and Mae Gordon, PhD

Vision community educates Capitol Hill



On World Sight Day 2012, 13 domestic and international vision community organizations (including ARVO) joined Vision 2020/USA in hosting a Congressional briefing emphasizing collaborations in vision research and vision loss prevention. Speakers Gyan "John" Prakash, PhD (left), NEI's associate director for international programs, and John Crews, DPA (right), CDC's Vision Health Initiative, addressed how NEI-funded research on eye disease and potential therapies drives CDC initiatives to characterize diseases in the population and develop prevention strategies.



At the AEVR Congressional briefing held during International AMD Awareness Week, ARVO member Gregory Hageman, PhD, of the Moran Eye Center, University of Utah, spoke about his research which suggests that AMD may be multiple biological diseases. From left, Jenny Wilson also of Moran Eye Center, Hageman, Michael Duenas, OD, of the American Optometric Association and Matt McMahon, PhD, NEI senior advisor for translational research.



DECADE OF VISION
an initiative of the
2010-2020
Alliance For Eye And Vision Research



Lighthouse International and vision community co-sponsors hosted a Congressional briefing on low vision and vision rehabilitation. From left, Mark Ackermann, president and CEO of Lighthouse along with event co-sponsors David Danielson of the American Optometric Association, Mark Richert and Paul Schroeder of American Foundation for the Blind, Ali Manson of Prevent Blindness America, Roxanne Mayros of VisionServe Alliance, James Jorkasky of AEVR, and Bruce Rosenthal, OD, of Lighthouse, who was a featured speaker.

ARVO members to head to Hill

On Feb. 7, 2013, members of the ARVO Annual Meeting Program Committee will participate in an Advocacy Day hosted by NAEVR. The aim is to ensure that members of the 113th Congress, First Session, hear from the vision community about the importance of final FY2013 appropriations that adequately fund vision research. ■



AEVR releases defense vision brochure, DOD announces \$14 million in awards

On September 18, at the Fifth Military Vision Symposium on Ocular and Vision Injury held by the Schepens Eye Research Institute/Massachusetts Eye and Ear in Boston, Mass., AEVR's Decade of Vision 2010-2020 Initiative released a new brochure entitled *Value of Defense-related Vision Research*.

Summarizing the last seven years of AEVR education and NAEVR advocacy to address deployment-related eye injuries from combat operations, the brochure describes how the Vision Trauma Research Program (VTRP) budget line in defense appropriations funds DOD-identified research gaps.

AEVR will distribute the brochure to all Congressional offices. A downloadable version is available at eyerresearch.org.

Robert Read, the vision program manager at DOD's Telemedicine and Advanced Technology Research Center (TATRC), which manages the VTRP, announced \$14 million in awards to a total of 21 vision researchers (16 of whom are ARVO

members) in its FY2011-2012 funding cycle.

NAEVR will post awardee abstracts on its website when released by TATRC.

The \$14 million reflects Congressional appropriations of \$4 million in FY2011 and \$3.2 million in FY2012, plus \$7 million transferred over from other DOD agencies due to the quality and responsiveness of the vision grants.

At the symposium, researchers and clinicians addressed a variety of defense-related eye injury issues, including eye blast injuries, visual dysfunction as a result of traumatic brain injury, inflammation and infection, ocular pain and regenerative medicine. Attendees included ophthalmologists and optometrists from the Army, Navy, Air Force and Department of Veterans Affairs, vision researchers and research advocates. They were welcomed by Rep. Michael Capuano (D-MA), a champion for vision, who spoke about the importance of the research and advocacy for its funding in a tight fiscal environment. ■

Lame-duck priority: Sequestration

On November 13, Congress returned from the election recess for a "lame duck" session in which its priority was avoiding or delaying the potential "fiscal cliff" as a result of the looming sequestration. As estimated by OMB, the sequestration would impose cuts of \$2.5 billion to NIH and \$57.6 million to NEI, or 8.2 percent of the FY2012 funding level.

During the week of October 22, participants in the American Academy of Optometry annual meeting sent email letters from the NAEVR Central booth to Congress

urging it to avoid sequestration. As Congress returned, NAEVR joined its advocacy colleagues in a series of events hosted by Research! America that urged Congress to take action. ■



Dr. Collins has been consistent in describing the sequestration as a "dark cloud" on the horizon. He has especially cautioned legislators about the impact on new and competing grants, since NIH is already financially committed to an extensive portfolio of ongoing grants.



Left to right: ARVO member and joint DOD/VA Vision Center of Excellence (VCE) Director Colonel Donald Gagliano, MD, and Harvard Medical School Ophthalmology Department Chair Joan Miller, MD, with Rep. Michael Capuano (D-MA), and Massachusetts Eye and Ear President and CEO John Fernandez each welcomed attendees during the keynote session.



Past ARVO President Mark Petrash, PhD, of the University of Colorado at Denver views the poster by ARVO member Kevin Frick, PhD, of Johns Hopkins Bloomberg School of Public Health, summarizing results of the NAEVR-sponsored *Cost of Military Eye Injury and Blindness* study which Frick authored. The report was released at the ARVO 2012 Annual Meeting.

Introducing David Beebe

It is my great pleasure to begin my term as editor-in-chief (EIC) of *IOVS*. Thank you to the ARVO membership for electing me to this prestigious position. I would also like to say a very special thank you to Paul Kaufman, MD, outgoing EIC, for his expert management and innovative contributions to *IOVS* these past five years. I will dedicate the next five years to validating your confidence in me and to enhancing the quality and stature of *IOVS*.

Although *IOVS* is one of the most comprehensive and respected journals in eye and vision research, a large number of authors are not members of ARVO. Please encourage your colleagues to join ARVO to benefit from the many advantages of membership in the ARVO community, including the free color option when they publish their work in *IOVS*.

Impact Factor (IF)

The *IOVS* editors and staff recognize the importance of the journal's IF for many authors. We will work to improve this metric, while recognizing that our primary job is to serve the members of ARVO by publishing high quality papers in all areas of vision research. The *IOVS* staff will work with Thomson Reuters to obtain more detailed reporting on *IOVS* citations. This information will guide future decisions to enhance the *IOVS*'s IF.

Reviewers, the heart and soul of the journal

It is difficult to overstate the exceptional value provided to the journal by the thousands of colleagues who review manuscripts for *IOVS* each year. We all benefit immensely from their dedication and service. While serving as an editorial board member and associate editor for *IOVS*, I have been consistently impressed by the time, effort and expertise generously offered by the vast majority of reviewers.

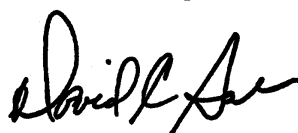
However, we all know that our manuscripts do not always land on the desk of the most expert or thoughtful reviewer. It may come as a surprise to the readers of *IOVS* that all reviews are now scored for quality. These scores are saved, so that when an editorial board member is seeking a reviewer for a paper, they can

invite someone who has performed well in the past.

As recognition of the service provided by the very best reviewers, we instituted a new category for scoring reviews, "Exceptionally Good Review." Reviewers who achieve this ranking receive a special email thanking them for going above and beyond expectations in their review. Ultimately, it is the reviewers who maintain the quality of a journal and assist authors in improving their work. If you have served as a reviewer for *IOVS*, thank you! I look forward to your continuing contributions to the journal and to vision research.

Looking ahead

You can expect that *IOVS* will not change radically in the next few years, but will continue to make gradual changes that enhance the quality of the journal and increase access to it by vision scientists around the world. The *IOVS* staff have consistently maintained the journal on a steady course. We all benefit from their dedication and professionalism. I will work closely with them to increase the efficiency of the journal, while always being open to your suggestions for improvement. I look forward to working with you over the next five years to enhance and extend the impact of *IOVS*. ■



David Beebe
Editor-in-Chief

Beebe, a former ARVO president, is the Janet and Bernard Becker Professor of Ophthalmology and Visual Sciences at Washington University in St. Louis, Mo.



David Beebe, PhD,
FARVO

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	Total Cites	Ranking (out of 56 journals)	5-Year Impact Factor	Impact Factor	Immediacy Index	Cited Half-life Articles	Eigenfactor Score™	Article Influence Score™	
IOVS	37,341	6	3.597	3.862	0.641	1,198	7.3	0.07569	1.086
JOV	6,214	7	3.376	3.646	0.653	268	3.6	0.02875	1.244

The Impact Factor (IF) of a journal is the average number of citations received per paper published in that journal during the two preceding years.

ARVO journals *IOVS* and *JOV* were cited a total of 45,355 times during 2009 and 2010.

The Eigenfactor Score rates the importance of a scientific journal. Eigenfactor Scores and Article Influence scores are calculated by eigenfactor.org, and full free access is allowed. The Eigenfactor Score is regarded as more flexible than Impact Factor.



Paul L. Kaufman, MD,
FARVO

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Five years on...

This January, as we witness yet another orderly transition of power among our elected representatives on Capitol Hill, IOVS also witnesses a transition between editors-in-chief as my five-year term comes to an end, and as a result of the 2011 election for a new editor-in-chief.

As a scientific journal, IOVS processes and disseminates scholarly content and is therefore in the unique position of being a hub for our community; able to move science forward by generating new ideas and results.

Readers can now cite papers within days of acceptance in "Recently Accepted Papers." Articles — once edited and proofed — are now published online, instead of waiting for the traditional monthly batch. In my recent editorial in IOVS [iovs.org/content/53/13/8238.full], I have provided

many examples of how IOVS has gone from strength to strength.

Farewell and thanks

The journal could not have achieved its growth without the participation of many people overseeing the progress of over 9,000 manuscripts during the last 5 years; notably my associate editors, David Beebe, PhD, FARVO (Washington University in St. Louis), Stanley Chang, MD (Columbia University), Reza Dana, MD (Schepens Eye Research Institute), Shigeru Kinoshita, MD, PhD, FARVO (Kyoto Prefectural University of Medicine), Elke Lütjen-Drecoll, MD (University of Erlangen-Nürnberg), Stephen C. Pflugfelder, MD (Baylor College of Medicine), Joseph F. Rizzo, MD (Massachusetts Eye and Ear Infirmary), Russell N. Van Gelder, MD, PhD (University of Washington), Martin B. Wax, MD (University of Texas Southwestern Medical School) and Thomas Yorio, PhD (University of North Texas Health Science Center).

In addition, nearly 80 editorial board members orchestrated the review cycle, leading the reviewers that are crucial to each manuscript. The journal has averaged about 2,000 reviewers per year over the past five years. The EBMs made the tough calls and recommendations, and kept the journal steady and moving forward, voluntarily carrying a very heavy load for us in addition to their other responsibilities. Without their efforts we would have stalled cold. I am grateful for all that they have done for IOVS and for our research community. ■

Paul Kaufman
Former Editor-in-Chief

Kaufman is currently Professor of Ophthalmology and Visual Sciences and Director of Glaucoma Services at the University of Wisconsin Medical School, Hospital and Clinics, in Madison, Wisc.

New book: 50 years of the best of IOVS

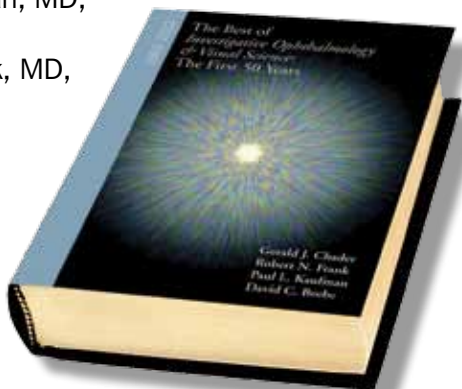
IOVS turns 50 this year. To celebrate, ARVO will be publishing a 900+ page volume, *The Best of Investigative Ophthalmology & Visual Science*.

And who better to select the groundbreaking, seminal and controversial papers from Volume 1 of *Investigative Ophthalmology* through Volume 52 of *Investigative Ophthalmology & Visual Science* than the most recent four editors-in-chief?

They are:

- David Beebe, PhD, FARVO
- Gerald Chader, PhD, FARVO
- Paul Kaufman, MD, FARVO
- Robert Frank, MD, FARVO

Both hardback and paperback editions will be available for sale at the 2013 Annual Meeting



Introducing Dennis Levi

In 2000, Andrew (Beau) Watson, PhD, proposed to ARVO the creation of an entirely new kind of journal: open access, online and digital. The ARVO Board of Trustees approved the concept and made Watson editor-in-chief. He launched the *Journal of Vision*, accepting manuscript submissions in January 2001 and publishing the first article in May.

He convinced a stellar group of vision scientists to join the editorial board. He designed the look and the user interface for the journal and tirelessly promoted it to his colleagues in presentations at scientific meetings. This was all new technology then, and, internally, there must have been countless unexpected issues to resolve, but this was invisible to users of the journal. We all found it lively and seamless. In 2003, to improve the quality and reduce costs, Watson brought production inhouse. With hindsight, this was a wise and brave decision. To further offset the costs to ARVO, Watson brought in over \$100,000 in funding from extramural sources.

The journal, now 12 years old, is a resounding success. It is growing rapidly in submissions, published papers and online usage. The journal now receives, on average, one to two submissions per day and publishes an article every one to two days. And it lives up to the online aspiration, with approximately 2,000 internet sessions per day – many of them now on mobile devices (like iPads) that didn't even exist in 2001. JOV has an Impact Factor of 3.376, ranking it high among vision science journals and just about neck-and-neck with IOVS.

It is an honor and a privilege to serve as the second editor-in-chief of *Journal of Vision*. I have a long, rich and varied involvement with the journal. I was a member of the ARVO Long Range Planning Committee that supported the proposal to start the new electronic journal in 2000. I served on the ARVO Publications Committee (2002 – 2003) and on the JOV subcommittee that developed and approved the journal's financial plan. I served on the founding editorial board, published 21 papers, served as a referee on multiple occasions, and I am honored to have been listed in the top 10 most cited authors in the JOV index (announcement April 2010).

I'm a huge fan of JOV, in part because it is open access and always freely available, and

because it is an innovative model for online publishing and provides some article-level metrics. JOV has a distinguished international editorial board, and the published product is high quality and esthetically pleasing.

A recent innovation has been the addition of a new section of the journal: *Methods*. The increasingly technical nature of vision science, the need for an open-access venue for description of substantial new technical developments, and the unique capabilities of *Journal of Vision* for publication of code and demonstrations, has convinced us of the value of publishing methods reports. We believe that the addition of *Methods* will increase the significance of the journal as a critical publication venue in vision science.

Starting in January, JOV will have four associate editors who, in addition to the editor-in-chief, will receive manuscripts directly and either distribute them to editorial board members or handle them themselves. We anticipate that this structure will help ensure that manuscripts are handled efficiently by editorial board members with the appropriate expertise. The JOV editorial board is a "working" board in which members act as action editors, assigning reviewers and making the editorial decisions. ■



Dennis Levi, OD, PhD



Dennis Levi
Editor-in-Chief

Levi is professor of optometry and vision science, and dean of the School of Optometry at the University of California, Berkeley. He is a founding member of the JOV editorial board and former IOVS editorial board member.



Marco Zarbin, MD, PhD,
FACS, FARVO

TVST: Up and Publishing

On Tuesday, May 8, 2012, ARVO launched the inaugural issue of *Translational Vision Science and Technology*. The first TVST research article, “The Nature of Macular Damage in Glaucoma as Revealed by Averaging Optical Coherence Tomography Data” by Donald C. Hood, PhD, FARVO; Ali S. Raza, Carlos Gustavo V. de Moraes, Chris A. Johnson, PhD, FARVO; Jeffrey M. Liebmann, MD, FARVO; and Robert Ritch, MD, FARVO, was published May 25, 2012.

Archives of Ophthalmology

Each month, *Archives of Ophthalmology* publishes a feature under the section “Translational Science With Clinical Promise.” I currently

author this monthly feature, which includes the latest in translational research with a special mention of select TVST articles.

Editor appointments

We are pleased to welcome Jayakrishnan Ambati, MD (University of Kentucky), Francine Behar-Cohen, MD, PhD (Université Paris Descartes), Haroldo Moraes, MD, PhD (Federal University of Rio De Janeiro), and Rubens Belfort, Jr., MD, PhD (Federal University of São Paulo) to TVST’s team of associate editors, now totaling 15.

Research Highlight

On Oct. 25, 2012, TVST published its first Research Highlight. One of the reviewers of “The oral iron chelator deferiprone protects against retinal degeneration induced through diverse mechanisms” (DOI 10.1167/tvst.1.3.2), Steven J. Fliesler, agreed to reveal himself and to write a spotlight on the article. His research highlight “Take Two Iron Chelators and Call Me in the Morning” was published in conjunction with the original research article as DOI 10.1167/tvst.1.3.2a.

Website development

TVST is currently being hosted by Allen Press. Using one of Allen Press’s Pinnacle templates,

the current site is a temporary location for our published articles. Behind the scenes, journal staff is working closely with Allen Press to develop a more robust website with increased flexibility and features.

Mobile development

Allen Press is in the process of developing a mobile application for TVST.

Call for papers

With our third issue underway, we would like to welcome new submissions to the journal. To submit to TVST, please visit tvst.msubmit.net. ■

Marco Zarbin
Editor-in-Chief

Zarbin is currently a professor of ophthalmology and neuroscience at the New Jersey Medical School and holds the Alfonse A. Cinotti, MD/ Lions Eye Research Chair in the Department of Ophthalmology.

tvst **translational
vision science
& technology**

