

Association for Research in Vision and Ophthalmology

www.arvo.org

Winter/Spring 2009

Message from the President A Silver Lining?



MD, PhD

Economic doom and gloom echo from the TV, radio, newspapers and even YouTube. There have been bank failures, a credit crunch and falling real estate prices. Stock markets across the world are in freefall, the US auto

industry is facing a major crisis and college graduates are dealing with the toughest job market since the Great Depression. Airline travel is more difficult than ever

ARVO sponsors awards for minority students



Christopher Spears of Morehouse College with his winning poster at ABRCMS.

RVO sponsored awards for undergraduate students at the Society for the Advancement of Chicano and Native Americans in Science (SACNAS) National Conference and the Annual Biomedical Research Conference for Minority Students (ABRCMS). For more information on the awards and the winners, see page 4. and the value of my retirement plan has dropped precipitously.

So why am I still smiling when my life seems to be caught up in the lyrics of a bad country & western song? Because, life in academics, carrrying out translational vision research and caring for patients in need, is looking pretty good right now. But despite the flat National Institutes of Health (NIH) budgets of the last five years of the Bush administration, new discoveries in vision research have occurred at such a rapid rate over the past four years that they have been difficult to keep up with.

See From the President, page 3

Members succeed

Parke named CEO of AAO

The American Academy of Ophthalmology has named David Parke, II, MD, an ARVO member since 1982, Executive Vice President and Chief Executive Officer. He will succeed retiring EVP/CEO H. Dunbar Hoskins, Jr., MD, in April 2009. See Parke, page 7

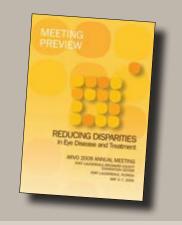
Nathans and Yau share \$1.4 million Champalimaud Award

ARVO members Jeremy Nathans, PhD, and King-Wai Yau, PhD (both of Johns Hopkins University), will share one of the largest science awards in the world. See Champalimaud, page 8

Ambati first ophthalmologist to receive Duke Clinical Scientist Award

Jayakrishna Ambati, MD, of the University of Kentucky College of Medicine, has been named a recipient of the prestigious 2008 Doris Duke Distinguished Clinical Scientist Award. See Ambati, page 7

Check out your ARVO 2009 Meeting Preview enclosed



IM, RC and VI: Plan to vote

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Future ARVO Annual Meetings

May 2–6, 2010 May 1–5, 2011 Fort Lauderdale, FL

ARVO GOVERNANCE

Proposed bylaws amendment: Updating section trustee nomination process

Background: In 2005, ARVO began taking section trustee nominations in Badvance of the Section Business Meetings held each year at the Annual Meeting. The aim was to increase the number of candidates on the ballot. Members also could nominate candidates at the Business Meeting itself. Since then, the number of advance nominations has increased.

The proposal: The Board of Trustees would like to further streamline this process and is proposing to amend the bylaws to adopt online-only advance nominations. Nominees would have the option of submitting a video along with their written application to assist members in making their voting decision. Section candidates would be announced at the Section Business Meetings. This new procedure would be implemented in January 2010.

The vote on the proposed amendment will take place at the General Business Meeting at the 2009 Annual Meeting.

Amendments to the ARVO bylaws require 100 votes, so we strongly encourage you to attend the 2009 General Business Meeting on Tuesday, May 5, in Fort Lauderdale and have your say.

The proposed amendment is as follows:

5.03 ELECTION. (A) NOMINATION OF TRUSTEES. During the course of each Annual Meeting of ARVO, each Scientific Section of ARVO shall hold a separate business meeting. By the end of the first day of the ARVO Annual Meeting, At the separate business meeting, each standing Scientific Section whose Trustee's term of office will expire at the end of the following year's Annual Meeting shall nominate by online vote no more than two (2) candidates, The two nominated candidates will be announced at the Scientific Section's separate business meeting. One of whom One of the candidates will be elected as the Successor Trustee by online electronic election prior to the follow year's Scientific Section's separate business meeting.

PH and RE: Choose your trustee candidates for 2010

Do you know the perfect candidate for Physiology/Pharmacology (PH) and Retina (RE) Section trustees? Are you a leader who wants to advance the organization's goals and help guide ARVO into the future?

The voting members of the PH and RE Sections will choose candidates to stand for election in 2010 at the 2009 ARVO Annual Meeting during their Section Business Meetings.

Trustees serve a five-year term. The Board of Trustees meets three times annually: once in the fall and twice at the ARVO Annual Meeting. Visit **www.arvo.org/governance** to learn more about the role of the Board of Trustees.

In February, watch your e-mail and **www.arvo.org** for a call for nominations notice. ARVO will accept nominations before and during the Section Business Meetings. Members can nominate colleagues in good standing in their section or self-nominate. Contact Lori Methia (lmethia@arvo.org) if you have questions.

Select your section's sessions at the **Annual Meeting**

Are you interested in helping plan your section's sessions at the Annual Meeting? If so, the Annual Meeting Program Committee needs you! Calls for nominations will open January 5. Committee members serve a three-year term (VI members serve a four-year term). Visit www.arvo.org to learn what your section is looking for and how you can apply.

On March 16, all voting members will be eligible to vote for their section's committee representative(s). Candidate bios will be posted at www.arvo.org and voting instructions will be e-mailed to you. Results will be announced at the Section Business Meetings during the 2009 Annual Meeting.

Remember to pay your dues by February 15 so you can vote.

Contact Lori Methia (lmethia@ arvo.org) if you have questions.

Strategic planning on course

RVO first unveiled the 2009–2013 Afive-year long-range plan in the Winter/Spring 2008 ARVONews. The Planning Committee created five new goals and appointed goal co-chairs from the Board of Trustees to lead the way in carrying out the plan. In November, the co-chairs identified the first set of objectives under each goal.

These include addressing a new location and venue for the ARVO Annual

From the President, continued from page 1

Moreover, these advances have been coupled with a genuine desire to make vision research clinically relevant. To this end, more and more research is being carried out in the form of international collaboration, as a means of not only speeding up research, but also focusing it on the most affected and disadvantaged populations.

A flat NIH budget is better than the precipitous 40% drop that the stock markets took. Furthermore, as part of the first economic stimulus package, the US government pumped an extra \$150 million into NIH. A second NIH stimulus package of \$1 billion (capable of funding 3,300 new research grants) is under serious consideration (see page 16). And with a new administration, we can expect to see a marked reduction in the restrictions on federally funded stem cell research as well as serious efforts toward improving the US healthcare system.

Meeting; creating a basic research wiki for ARVO members; assessing ARVO membership categories; and attracting young ophthalmologists and vision eye researchers to ARVO. Working groups will form and report back to the Planning Committee and Board of Trustees at the ARVO 2009 Annual meeting.

Visit www.arvo.org/strategic13 to learn more about the plan.

I am also proud to report that ARVO is in good fiscal shape, and flourishing in its mission to encourage and assist research, training, publication and knowledge-sharing in vision and ophthalmology.

In testimony of this, a record number of abstracts were submitted for the 2009 Annual Meeting in Fort Lauderdale, FL. The number of ARVO international affiliates is growing. ARVO continues to support smaller meetings on focused research topics (such as the very successful Summer Eye Research Conference on immunology in Monterey, CA in August 2008). And our journals, Investigative Ophthalmology & Visual Science and Journal of Vision, continue to thrive and attract ever-growing numbers of submissions.

So call me an optimist — but I could have been working for Lehman Brothers. Wishing you all the best for 2009.

IM, RC and VI: Vote for your section's trustee

f you are a voting member (Regular, Family, Sustaining, Life and Family Life) of the Immunology/Microbiology (IM), Retinal Cell Biology (RC) and Visual Psychophysics/Psychological Optics (VI) sections, make sure that you have a say in your section's leadership.

Voting opens March 16. Candidate bios will be posted at www.arvo.org and voting instructions will be e-mailed to you. Results will be announced at the Section Business Meetings during the 2009 Annual Meeting.

In order to vote, your dues must be paid by February 15.

The IM and RC sections have each nominated two candidates to stand in the



2009 Board of Trustees elections. VI has nominated one candidate.

IM Section

Rachel Caspi

Rachel R. Caspi, PhD Lab Immunology, National Eve Institute/National Institutes of Health

Justine R. Smith, MBBS, PhD

Oregon Health & Science

Casey Eye Institute,

Justine Smith



University

Michael Boulton





David Williams

RC Section Michael E. Boulton, PhD Director, Age-Related Macular Degeneration Center, University of Texas Medical Branch

John S. Penn, PhD

Snyder Professor and Vice Chairman, Vanderbilt Eye Institute, Vanderbilt University School of Medicine

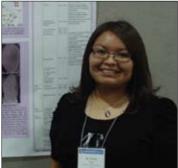
VI Section

David R. Williams, PhD Director, Center for Visual Science, University of Rochester

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Diversity Committee ARVO recognizes minority students





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Clockwise from top left: Guy Gringas, Diego Herrera and Kristen Kee are 2008 winners of the ARVO/SACNAS Awards.

or the first time in October and November last year, ARVO sponsored awards at the Society for the Advancement of Chicano and Native Americans in Science (SACNAS) National Conference and the Annual Biomedical Research Conference for Minority Students (ABRCMS). The awards recognized outstanding vision research by minority undergraduate, graduate and postdoctoral students. ARVO Diversity Committee Chair Laura Robles and committee

member Andrew Tsin attended and judged the posters and presentations at the two conferences.

ARVO presented three awards for vision research at the SACNAS conference. They included a \$200 prize, one year complimentary ARVO membership and online access to *IOVS* and *JOV*. Recipients of the 2008 ARVO/SACNAS Awards are: **Guy Gringas,** University of Pennsylvania School of Medicine

Poster: Cortical Responses to Rod and Cone-isolating Flicker in a Canine Model of Achromatopsia

Diego Herrera, University of California, Santa Barbara
Poster: The Role of Proliferation in Epiretinal Membranes
Kristen Kee, University of New Mexico–Gallup

Poster: Finding Rap1 Interacting Genes in Drosophila Eye Development

ARVO also sponsored awards at ABRCMS, where two students presenting vision-related posters were selected. They were:

Christopher E. Spears, Morehouse College Poster: Disruption of Eye Morphogenesis in Bromi Mouse

Poster: Disruption of Eye Morphogenesis in Bromi Mouse Mutants.

Eduardo Gonzalez-Maldonado, University of Puerto Rico-Mayaguez

Abstract: Determining the Role of Eph-A5 Receptors in Retinal Development

Learn more about SACNAS and ABRCMS

www.sacnas.org www.abrcms.org

New Diversity Committee Brochure Available

The Diversity Committee has created a brochure to encourage undergraduates and high school students to explore careers in vision research. Learn more or download a copy at www.arvo.org/diversityrecruit.

Animals in Research Committee Best practices for the use of animals in research

The Animals in Research Committee (ARC) has compiled resources to keep members informed about best practices and ways to protect themselves from animal rights extremists.

Changes to ARVO handbook and policy

In response to current issues facing institutions and scientists using animal models, the Animals in Research Committee has been working to update both the ARVO Handbook for the Use of Animals in Biomedical Research and "Statement for the Use of Animals in Ophthalmic and Vision Research." Look for updates at **www.arvo.org** soon.

New Web site from FASEB

www.animalrightsextremism.org

In response to the increasingly violent tactics of animal rights extremists, the Federation of American Societies for Experimental Biology has developed this resource-rich Web site to help scientists learn more about fostering safe research environments.

FDA provides transcript on genetically engineered animals guide

The FDA has released a draft guide regulating the use of genetically engineered animals. To listen to the briefing at which the guide was announced, or to download a transcript of the event, visit www.fda.gov/cvm/GEAnimals.htm.

Updates to US and EU guidelines

Both the US and European governments have been revising animal-use guidelines. Visit the Web sites of NIH's Office of Laboratory Animal Welfare (http://grants1.nih.gov/grants/olaw/) and the European Biomedical Research Association (www.ebra.org) to find out more.

Europe seeks to "level the playing field"

The European Commission has released a proposal for a new directive on animal experimentation. The aim is to help "level the playing field" between EU member states in terms of the practices they employ to protect animals used for scientific purposes. A draft of the European Commission's new directive can be found at www.europa.eu/environment/ chemicals/lab_animals/proposal_en.html.

Become more involved in ARVO

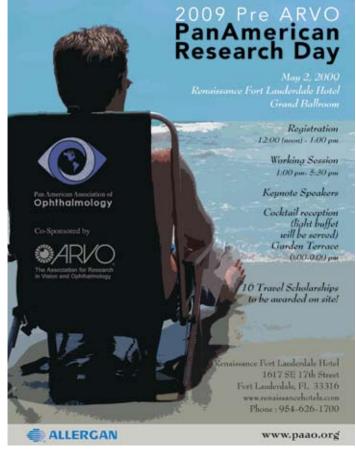
ere is your chance to influence the current and future course of ARVO: Volunteer for an ARVO committee. By joining a committee, you can contribute your expertise and passion, learn a new skill or broaden your knowledge in a way that is helpful to your career or workplace.

Committees carry out and implement leadership and educational projects that address ARVO's strategic goals. They also provide advice and direction on scientific and regulatory policies affecting the ophthalmology and vision research community.

Committee members typically serve a three-year term. Visit

www.arvo.org/committees for a committee listing, descriptions of recent activities and a link to apply for a committee online. Appointments will be made in March.

Newer members, students and experienced members are all encouraged to contribute. Don't hesitate — volunteer today.



ARVO ACTIVITIES

Who are the ARVO International Chapter Affiliates?

Israel Society of Vision and Eye Research (ISVER) Jerusalem, Israel Established in 1979 150-200 members Research areas: basic, clinical and epidemiology www.isver.org Next meeting: March 12–13, 2009

Brazilian Research Association for Vision and Ophthalmology (BRAVO)



São Paulo, Brazil Established in 2004 200 members Research areas: basic and clinical www.fesbe.org.br/bravo

Asociación de Investigación en Visión y Oftalmologia (AIVO)

Buenos Aires, Argentina Established in 2007 Members from Argentina, Paraguay and Uraguay Research areas: vision and ophthalmology, regenerative medicine, pharmacogenomics, nanotechnology

Hungarian Association for Research in Vision and Ophthalmology (HARVO)

Budapest, Hungary Established in 2007 56 members Research areas: anterior segment surgery, tear film and ocular surface, glaucoma, retina www.harvo.org



ARVO-NED

Nijmegen, the Netherlands Established in 2008 Research areas: basic and clinical **www.oogheelkunde.org**

Argentina chapter features ARVO session

Attendees from Uraguay, Paraguay and Argentina gathered for the 5th Annual Meeting of the Asociación de Investigación en Visión y Oftalmologia (AIVO) in Cordoba, Argentina on October 25, 2008. AIVO is an ARVO International Chapter Affiliate.

ARVO sponsored an educational session featuring member Stanley Vinores, PhD, from the Wilmer Eye Institute, who discussed the bloodretinal barrier in angiogenic processes in the eye and new therapeutic approaches in ocular neovascularization.

AIVO has also established the Nicolas Bazan Scholarship Fund to Promote Scientific Research in Argentina. In its first year, the fund awarded seven travel grants to the ARVO 2008 Annual Meeting.

Did you know ...

You may be missing out on important information about ARVO meetingrelated deadlines, as well as grant and award opportunities.

"Whitelist" ARVO in your e-mail system. Why? A whitelist names acceptable sources for e-mail communications, preventing e-mails from these sources being marked as spam and blocked or deleted.

There are two ways to whitelist ARVO:

- To enable server-side whitelisting, contact your system administrator and request that e-mail from *@arvo.org be allowed.
- To enable client-side whitelisting, you can set up a spam filter to whitelist individual e-mail addresses, domains, and/or IP addresses. Check the help menu in your e-mail program for instructions.

ARVO to move to green building

As ARVO's membership continues to expand, the staff has outgrown our current office space. As a result, we are moving to a new building in Rockville, MD, owned by the American Speech-Language-Hearing Association.

The new building, just a few miles from our current location, has been certified by the US Green Building Council as a Gold LEED (Leadership in Energy and Environmental Design) building. This exceptional certification recognizes environmental friendliness in key areas such as sustainability, water efficiency, energy usage, materials and resources, as well as its indoor environmental quality, innovation and design.

The ARVO relocation is scheduled for June.

ARVO staff give back

n the December 2008 Manna E-News, ARVO staff were recognized for collecting and donating canned and boxed foods to Manna Food Center of Montgomery County, MD. Located near the ARVO office, the nonprofit organization Manna feeds 3,100 hungry county families each month as well as 600 hungry elementary school children each week.

MEMBER SUCCESSES

Parke, continued from page 1

Parke has served on the Academy's Board of Trustees since 2000, and he is the 2008 Academy president. Parke

is the president and CEO of the Dean McGee Eye Institute in Oklahoma City, one of the nation's largest nonprofit facilities devoted solely to research, clinical care and education in ophthalmology and vision science. Parke is also professor and chair of the Department of Ophthalmology at the University of Oklahoma College of Medicine.

Parke is a founding member of MedEncentive, a

company integrating evidence-based medicine into a pay-for-performance structure and serves as vice chair of the



David Parke, MD

AMERICAN ACADEMY

OF OPHTHALMOLOGY

The Eve M D Association

Board of Directors of the Ophthalmic Mutual Insurance Company (OMIC).

On accepting the position, Parke commented: "My career as an ophthalmologist now will be dedicated

to serving the profession I love. We have all benefited inestimably from the skills and commitment of Dr. Hoskins. He has led us all with a sure hand through many challenges over the past 16 years, and our profession has fared well under his stewardship. I pledge to dedicate my best efforts to

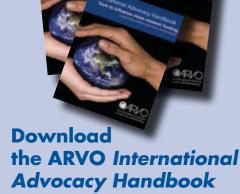
the same end. I look forward to working with and representing the Academy's members. This new position will be the

greatest challenge and honor of my professional career."



A new year, a new job ... Find your perfect career move on ARVOJobs. Create an anonymous profile so employers can contact you, and register your job criteria; when matching positions are posted, you will be automatically notified.

Employers with active positions can review all registered candidates at no additional cost. We currently have 140 of the field's best candidates.



RVO has participated in many activities organized by the National Alliance for Eye and Vision Research to expand awareness of eye disease and vision impairment and to increase vision research funding. This handbook is offered to members and others to help increase vision research funding worldwide and can be downloaded at www.arvo.org/advocacyhandbook.

U. of Kentucky's Ambati receives \$1.5 million Doris Duke Award

ayakrishna Ambati, MD, is a recipient of the 2008 Doris Duke Distinguished Clinical Scientist Award. The award provides \$1.5 million in research funding over a fiveyear period which began January 1.



Ambati, professor of physiology and professor and vice chairman in the Department of Ophthalmology and Visual Sciences at the University of Kentucky College of Medicine, is the first ophthalmologist to receive this honor from the Doris

Jayakrishna Ambati, MD

Duke Charitable Foundation. He is one of six physician-scientists in the nation to receive the 2008 award, which is given every other year.

The Doris Duke Award recognizes outstanding mid-career physician-scientists who are applying the latest scientific advances to the prevention, diagnosis, treatment and cure of disease, and enables them to support and mentor the next generation of physicianscientists conducting clinical research.

Ambati credits his success to his research group, which is internationally recognized for contributions such as the first mouse model of age-related macular degeneration (AMD) and the discovery of complement activation as a trigger of wet AMD. His laboratory's most recent research, published in the journal *Nature*, challenges long-held beliefs about the application of RNA interference, or gene silencing, based on a discovery that won a Nobel Prize in Physiology or Medicine in 2006.

Their critical discovery that small interfering RNA can generically activate an immune receptor known as TLR3 without triggering RNA interference gained widespread attention.

Ambati's group recently reported in the *New England Journal of Medicine* that TLR3 activation can trigger the advanced "dry" form of AMD known as geographic atrophy. In 2009 they plan to start clinical trials of a new drug developed by their laboratory for this disease, which at present has no approved treatment.

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Champalimaud Award gives taste of freedom

ow would a sudden influx of more than \$700,000 affect your career? ARVO members Jeremy Nathans, MD, PhD, and King-Wai Yau, PhD, are finding out. The Johns Hopkins University researchers are joint recipients of the 2008 Antonio Champalimaud Vision Award, splitting the €1 million (US \$1.45 million) prize. They talked about their careers and the award to ARVONews.

Jeremy Nathans

Two "amazing" lectures set Jeremy Nathans on the



Jeremy Nathans, MD, PhD road to studying the visual system, specifically photoreceptor biology. In 1981, the MIT graduate was attending Stanford University School of Medicine when he heard lectures by Lubert Stryer and Denis Baylor.

"They had both made extraordinary breakthroughs in photoreceptor biology," Nathans recalls. "Their insights were amazing. I literally

ran to the library and started reading about the visual system. The more I read, the more I thought that this was a great area to work in.

"Recombinant DNA technology was just getting going at the time, and there were a number of ques-

> tions in vision science that could be answered with this approach. I've been working on it ever since."

At Stanford, Nathans completed his PhD in biochemistry in 1985 and then his MD in 1987. Following a postdoctoral fellowship at Genentech, he went on to Johns Hopkins. He received ARVO's Cogan Award in 1992.

Nathans describes his work as taking a reductionist approach to retinal function, focusing on genes and proteins. "We're interested in how genes work and how they account for the performance and structure of the system. We've looked at genes and proteins involved in retinal development and retinal disease, identified the genes involved and studied defects in mutant versions that are responsible for diseases."

Along the way, Nathans and his team have identified the genes that code for the three kinds of lightsensing pigment molecules found in the cone cells and shown that alterations in these pigment genes are responsible for color blindness. Nathans' discovery of and work with genes that control retinal development have revealed several defects that lead to retinal diseases, including Stargardt disease.

Nathans has also worked closely with the other 2008 Champalimaud recipient, King-Wai Yau. "Our labs are only one floor away. We worked closely together on one particular project on vitelliform macular dystrophy. Other groups had shown that the condition is due to mutations in a gene that encodes for a membrane protein, and we showed that this protein provides a channel for negatively charged ions across the membrane. We solved a mystery related to this family of channels and also revealed a new approach to thinking about this disease mechanism."

Most recently, says Nathans, "my lab has been looking at the response of the retina and retinal pigment epithelium to damage. We're also working on what's behind the development of diseases of the retinal vasculature.

"We're keen to apply anything we learn to better understanding and ultimately preventing eye disease."

Nathans is not yet discussing exactly how the Champalimaud funding will affect his work. "I felt very lucky to be named a recipient; there are a lot of good people out there. The funding will enable us to try experiments that are higher risk but potentially higher reward. So when the Champalimaud Foundation looks back, I want them to say 'That was money well invested.""

King-Wai Yau

When King-Wai Yau completed his Harvard PhD in invertebrate neuroscience under John Nicholls (via a brief stint at medical school in Hong Kong, an AB in physics at Princeton University and rounding out his thesis work at Stanford after Nicholls moved there in 1973),

advice.



PhD

"John Nicholls told me "Whatever you do, you should work with the best scientist, no matter what he does." And for me, it turned out the best guy was right next door there at Stanford."

he received some very definite

In this case, the best guy

was Denis Baylor. In Baylor's lab, Yau, Baylor and Trevor Lamb developed the suction-pipette method for recording electrophysiology from a single rod photoreceptor. This method revolutionized the study of retinal rods and cones, and allowed detection of the response of a rod to a single photon.

"That method was a godsend for addressing many fundamental questions at the time," Yau



MEMBER SUCCESSES

recalls. The suction-pipette method is still the most effective way to analyze the physiology and pathophysiology of retinal rod and cone photoreceptors.

"At that point, I became interested in the cellular mechanism by which light actually triggers a response in the photoreceptors," says Yau. He went to Cambridge for two years to work in the lab of Sir Alan Hodgkin, who had received the Nobel Prize in Medicine in 1963.

In 1981, Yau moved to the University of Texas Medical Branch at Galveston where he continued his focus on phototransduction and made several significant advances.

He and his team, along with Evegeny Fesenko's group in the former Soviet Union, played a dominant role in unraveling the protracted confusion surrounding the so-called Ca²⁺- and cGMP- hypotheses in vision. They also discovered the long-sought-after membrane current associated with electrogenic sodium/ calcium exchange, a crucial Ca²⁺ transport mechanism found in practically all cell types in the body. Concurrently, he validated in cones his findings on rods, thus unifying rod and cone phototransductions as being mechanistically similar, an issue previously under debate. In 1986 Yau moved to Johns Hopkins University School of Medicine, where he investigated rod and cone phototransductions in ever greater detail. Yau received ARVO's Friedenwald Award in 1993. In 2002, he showed that the small subset of retinal ganglion cells first discovered by David Berson of Brown University to be intrinsically photosensitive actually express the unusual visual pigment melanopsin and depend critically on it for their function. These cells have been the only photoreceptors besides rods and cones discovered in the retina for the past hundred years.

He feels optimistic about the Champalimaud Award helping his lab to continue to explore new possibilities. "Receiving the Champalimaud Award has been a great honor," says Yau. "It is a significant amount of money, and we will use it to continue our work on cone and non-image vision. But I may work on something new again as well. Now I have the option of something exploratory.

"I am very aware of the need to be careful about marshalling our resources. The Champalimaud prize provides latitude to think about things that I otherwise might not be able to get support for."

ARVO/ Champalimaud Award Lecture

ARVO 2009 Annual Meeting Fort Lauderdale, FL Wednesday, May 6, 5:45–6:30pm

Jeremy Nathans, MD, PhD, and King–Wai Yau, PhD, the co– recipients of the 2008 Champalimaud Award, will present recognition lectures at the ARVO 2009 Annual Meeting in Fort Lauderdale, FL. The lectures will be followed by a reception; all are welcome.

Fight for Sight offers research opportunities

Fight for Sight awards up to \$350,000 each year to young researchers investigating eye disease and vision disorders.

Summer Student Fellowships

\$2,100 stipend to undergraduates and medical students interested in exploring eye research. Deadline is February 1.

Postdoctoral Fellowships

\$20,000 for basic science researchers who are within three years of their degree or ophthalmology clinical fellows who incorporate research into their training. Deadline is March 1.

Grants-In-Aid

Up to \$20,000 for junior faculty with no external support. Awards can be used for equipment, supplies and support staff. Deadline is March 1.

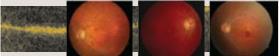
For guidelines and electronic application, visit www.fightforsight.com or contact Janice Benson, Asst. Director at +1.212.679.6060 or e-mail janice@fightforsight.com. ■



TWELFTH ANNUAL VISION RESEARCH CONFERENCE MECHANISMS OF MACULAR DEGENERATION

May 1-2, 2009 • Fort Lauderdale, FL, USA

A TWO-DAY SATELLITE EVENT PRIOR TO THE 2009 MEETING OF ARVO



The meeting will review the latest developments in the genetics of AMD, and focus on animal models that closely mimic early or late onset human macular diseases. Major areas to be covered will be mechanisms that lead to macular dystrophies, novel animal models of macular degeneration, and upcoming strategies in pharmacological and gene-based therapies in animal models.

The Twelfth Annual Vision Research Conference is sponsored and hosted by Elsevier / Vision Research and cosponsored by ARVO

VISION RESEARCH





TOPICS INCLUDE

- AMD/Angiogenesis/VEGF
- AMD Gene defects: Focus on Biology/Clinical Manifestations)
- AMD: Pathogenesis, Genetics, Mechanisms and Treatments
- Animal models of MD and cone dystrophies
- Cone degeneration and cone survival
- Gene-based therapies in animal models of MD
- RPE and Retinoids/Carotinoids/Lipofuscin
- The macula in health and disease

CALL FOR POSTERS

Abstract submission deadline: February 2, 2009

For full details and abstract submission visit: www.visionresearch-conference.elsevier.com

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Cora Verhagen Prize-apply now

The Cora Verhagen Prize is awarded for the best ocular immunology poster or paper presentation at the ARVO Annual Meeting. The Cora Verhagen Prize was instituted in 1995 to honor the memory and scientific contributions of our colleague Cora Verhagen.

An international jury committee of six active ARVO members has been appointed to select the two prize winners. The first prize winner will receive an award of \$250 and a plaque with an inscription of his or her name along with those of previous awardees. This plaque may be temporarily mounted in the institute during the year following the presentation at ARVO. The winner will also receive a bronze medallion. Both the medallion and the plaque contain the image of Winged Victory. The money and the plaque for the 2009 Cora Verhagen Prize will be awarded at the 2010 ARVO Annual Meeting. The

second prize winner will receive an award of \$100.

- Eligible candidates for the prize should conform to the following criteria: Candidates must be students or postdoctoral fellows considered as trainees in ocular immunology working under the guidance of a mentor. Such trainees may have independent support for salaries, but cannot hold a personal grant to support the cost of their research. Excluded are individuals with permanent faculty appointments at universities or research institutes, and employees of companies. Applications must include the name of the mentor and the title of the presentation.
- 2. Candidates must be the first author of a 2009 ARVO Annual Meeting poster or paper presentation dealing with a subject in the field of ocular immunology. ■

Application Form 2009 Cora Verhagen Prize

3	
I would like to compete for the 2009 Cora Verhagen Prize to be awarded for the best ocular immunology presentation by a trainee.	
Name:	
Abstract Title:	
Mentor Name:	
Mentor Statement:	
I hereby state that the above-named applicant fulfills the trainee criteria for the	i
Cora Verhagen Prize.	2
Mentor Signature:	Ţ
Deadline for applications is April 3, 2009. Do not send application forms to the	1
ARVO office. Please send all application forms to:	5
Dr. Andrew Taylor	I
Schepens Eye Research Institute	
20 Staniford Street	
Boston, MA 02114 USA	2
Fax: +1.617.912.0137	f
E-mail: andrew.taylor@schepens.harvard.edu	3

New ARVO Fellows Awards

RVO has established a new award to recognize and honor members for their leadership, dedication and contributions to ARVO. ARVO Fellows will serve as knowledgeable representatives of the association, and as role models and mentors for individuals pursuing careers in vision and ophthalmology research. ARVO Fellows will be entitled to use the professional designation of FARVO following their name.

The Board of Trustees has established two levels of Fellows, based on a point system which accounts for participation and involvement with ARVO. The levels are: ARVO Fellow — Gold

Minimum 60 points

ARVO Fellow — Silver

Minimum 50 points One point is awarded for each year of participation in ARVO through July 2008. Due to insufficient records, some criteria are limited to specific years.

- Membership maximum of 20 points
- Abstract submission; first or co-authors accepted for ARVO-sponsored meetings

 maximum of 20 points; 2002 forward

 Elected officials
- Elected officials
- Committee service as chair or member, excludes ex-officio; 1986 forward
- Journals editorial board member or reviewer; 2000 forward
- Educational program program organizer; 1996 forward
- Chapter service international affiliate chapter officer, council member or liaison
- ARVO Foundation for Eye Research Board of Governors

Over 130 ARVO members have been identified for the ARVO Fellows Class of 2009. Fellows will be notified by January 15. They will also be recognized in conjunction with the ARVO 2009 Annual Meeting.

If you believe that you qualify and did not receive a notification, please contact awards@arvo.org to find out your current point level or request that your participation be reevaluated. Requests must be received by February 15 for inclusion in the 2009 class. Every summer, staff will automatically add members' participation points to determine those qualifying for the next year's class of ARVO Fellows.



ARVO Awards Call for Nominations

The ARVO awards honor individuals for their exceptional contributions to ophthalmology and visual science. There are no membership requirements or geographical restrictions for nominees or nominators. Members of the vision community are invited to nominate their colleagues for the prestigious ARVO awards to be presented at the 2010 ARVO Annual Meeting.

Proctor Medal

Outstanding research in the basic or clinical sciences as applied to ophthalmology.

Friedenwald Award

Outstanding research in the basic or clinical sciences as applied to ophthalmology.

Mildred Weisenfeld Award for Excellence in Ophthalmology Distinguished scholarly contributions to the clinical practice of ophthalmology.



Promoting sight-saving research

See www.arvo.org/awards contact: awards@arvo.org etblackmon@arvo.org +1.240.221.2949

Cogan Award

Contributions to research in ophthalmology or visual science that are directly related to disorders of the human eye or visual system, by a promising individual 40 years of age or younger.

Kupfer Award

Distinguished public service on behalf of eye and vision research.

Special Recognition Award

Outstanding service to ARVO and/or the vision research community.

Nomination Deadline:

March 2, 2009. Nominations must be completed online at www.arvo.org/ awardsnomination. Nominations must include one nomination letter, a CV and the names of three colleagues who support the nomination.

ARVO @ OTHER MEETINGS



Anaheim, California: Speakers at the ARVO/American Academy of Optometry Joint Symposium "Assessing the Structure and Function of the Visual System Using Novel Imaging Technologies" responded to questions from the audience.



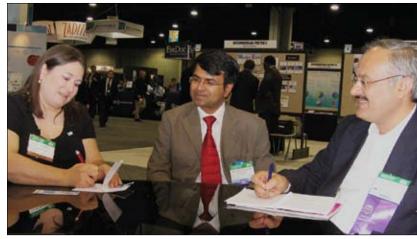
Beijing, China: ARVO's Executive Vice President Sally Atherton and members Steve Fliesler, David Beebe and Joe Hollyfield presented an ARVO/ISER Joint Workshop, "Getting Published," at the International Congress of Eye Research.



Washington, DC: Assistant Director of Communications Joanne Olson and Meetings & Education Director Ellyn Terry staff the ARVO booth at the Society for Neuroscience Annual Meeting.



Atlanta, GA: International Council of Ophthalmology (ICO) president Bruce Spivey, ARVO members Martine Jager and Robert Ritch and ARVO Executive Director Joanne Angle celebrate ARVO's plan to join the ICO.



Atlanta, Georgia: ARVO's Meetings & Education Director Ellyn Terry discusses Asia-ARVO meeting details with Santosh Honavar and Virender Sangwan of the LV Prasad Eye Institute.



Anaheim, CA: Assistant Director of Science Policy and Programs Bobbie Austin shared information with an attendee at the ARVO booth at the American Academy of Optometry Annual Meeting.

AFER plans for the future



n March, the AFER Board of Governors and others interested in the success of AFER met in Dallas, TX, to develop a three-year (2009-2011) strategic plan with new fundraising

Gary W. Abrams, MD

and programmatic initiatives that align with ARVO's goals and new strategic plan.

At the meeting, the planning group reviewed AFER's progress to date, and in that review, reaffirmed the commitment to eyesight preservation and blindness prevention through a simple philosophy: Every person deserves sight throughout life.

Statement of need

The planning group agreed that eye research is the key to alleviating blindness and ameliorating diseases and disorders of vision, but support of vision researchers worldwide in their training and work is inadequate.

AFER's vision and mission

The planning group also agreed on new vision and mission statements for AFER.

- AFER will become a leading and globally recognized foundation.
- AFER advances research to prevent and/or cure blindness and funds eye research in the areas of highest unmet needs.

Goals and objectives

The planning group developed three new goals and decided on several

objectives for meeting these goals. The group identified objective chairs and working groups, which are currently developing strategies/action plans and timelines.

Goal 1

AFER will develop programs to fund research, train and recognize researchers and to disseminate information on researchers and their findings.

Goal 2

AFER will raise sufficient funds to support programs and cover all operational objectives and to establish reserve funds.

Goal 3

AFER will be organizationally and financially strong to fulfill its purpose and achieve its vision and goals.

For a more comprehensive look at AFER's strategic plan and accomplishments, visit **www.arvofoundation.org**.

The AFER Board of Governors approved the strategic plan in September 2008. AFER donors and ARVO members are encouraged to provide feedback on the plan at any time. Submit your comments to AFER Chairman Gary Abrams at info@arvofoundation.org.

Sincerely,

UW Alcand

Gary W. Abrams, MD Chairman AFER Board of Governors

AFER Board of Governors

<mark>Chairman</mark> Gary W. Abrams, MD

Secretary/Treasurer Sheila K. West, PhD

Governors

Nicholas G. Bazan, MD, PhD Robert E. Besthof Gerald D. Cagle, PhD Herbert E. Kaufman, MD Thomas W. Nugent

Samir Patel, MD

Ex Officio Sally S. Atherton, PhD, ARVO Executive Vice President

President Joanne G. Angle, ARVO/AFER Executive Director

Thank you to all AFER donors

FER wishes to thank all the members, individuals and organizations for their generosity and support in 2008. For a list of all AFER donors, please visit www.arvofoundation.org.

Meet AFER's New Development Director



Aureen Dimont brings over 23 years of professional fundraising experience to the Foundation, ARVO Foundation for Eye Researc

Maureen Dimont

along with fresh ideas and plenty of enthusiasm for taking on new challenges. Her development expertise includes major gift fundraising, annual fund campaigns, special events, strategic planning, database management, grant proposal writing and capital campaign management.

Previously, she served as vice president of the Montgomery Hospice Foundation, vice president for the Sheridan Group, vice president of Philanthropy for The Washington Home and director of development for Adoptions Together.

She is a member of the Association of Fundraising Professionals. Volunteer activities include the Hospice Cup, America's largest charity regatta. Maureen received a Bachelor of Arts degree in Business Administration and Marketing from Minot State University in Minot, ND.

Contact Maureen at mdimont@arvofoundation.org or +1.240.221.2950.

Announcing ... the ARVO-AFER/Merck Innovative Ophthalmology Research Awards

Through a generous contribution from Merck & Co., Inc., AFER will launch a series of awards to honor young scientists throughout the world for their innovative contributions to ophthalmology research. Each award cycle is worth a total of \$70,000 in grants.

The ARVO-AFER/ Merck Innovative Ophthalmology Research Award (IORA), for-Merck's Chibret Award created in honor of French ophthalmologist Paul Chibret, is designed to encourage researchers to undertake investigative work in critical areas of ophthalmology. Since its initiation in 1982, more than 50 scientists



Merck representatives Mike Rabinowitz, Vladimir Hogenhuis, Adam Schecter and Jessica Jodecke met with ARVO/AFER Executive Director Joanne Angle (center) during the American Academy of Ophthalmology meeting to discuss the new ARVO-AFER/Merck Innovative Ophthalmology Research Awards.

age 45 or younger have received the award.

The submission period for the 2009 IORA closed in June 2008. AFER will give a first and second place award for each of two primary topics specified for the award. The primary investigator will receive \$25,000 (for first place) and \$7,000 (for second place). The department or laboratory where the research was conducted will receive the remaining funds: \$5,000 first place and \$3,000 second place.

For future awards, AFER will provide one first place award for each primary topic and two second place awards for each secondary topic. Funds will not be granted to departments or labs.

The 2009 award recipients will be recognized in conjunction with the ARVO Annual Meeting in Fort Lauderdale, May 3–7, 2009. To learn more about IORA, visit **www.arvo.org/merck-iora.**

Women in Eye and Vision Research Luncheon

Tuesday, May 5 12noon-1:30pm ARVO 2009 Annual Meeting Fort Lauderdale, FL

Join us for this inaugural event featuring

- Networking with colleagues and mentors
- Guest speaker
- Silent auction to benefit ARVO Foundation for Eye Research travel grants for women

Ticket information will be sent to all ARVO members by January 31.

For more information, visit www.arvofoundation.org/weavr.



Clinical Trials Education Series

With a curriculum designed for young and seasoned researchers alike, the AFER Clinical Trials Education Series (CTES) presented state-of-the-art approaches to the design, construction and execution of clinical trials in ophthalmology in several locations around the world last year.

In late June, AFER presented its first one-day Clinical Trials Course, "Designing and Managing Clinical Trials" before the the World Opthalmology Congress in Hong Kong.

The advanced three-day conference was held in Florham Park, NJ, in early September led by Curtis L. Meinert, PhD, of Johns Hopkins University. The course attracted attendees from several countries including China, India, Ireland and Mexico. "Don't ever think of engaging in a clinical trial without first attending this program," said participant Vincent Monnier of Case Western University in Cleveland, OH.

In late September, AFER presented its second one-day workshop at the European Association for Vision Research (EVER) meeting in Portoroz, Slovenia.

Upcoming one-day workshops are planned for Asia-ARVO in January and as a course at the ARVO Annual Meeting on Saturday, May 2. Check **www.arvo.org/ctes** for details and 2009 scheduling information.



Your chance to play host to a visiting researcher

FER is looking for members to serve as hosts or mentors for visiting researchers from developing countries attending the ARVO Annual Meeting. As a host, you have the ability to influence the visiting researcher's experience before, during and after the ARVO Annual Meeting. Hosts:

- Communicate with the visiting researcher prior to the Annual Meeting, acquainting them with the meeting and suggest how to plan their time.
- Help the researcher navigate the meeting.
- Introduce the researcher to other ARVO members with similar interests.
- Help create connections that will go beyond the meeting.

In 2009, AFER is seeking hosts for researchers from:

- India
- Indonesia
- Russia
- Mozambique
- Slovenia
- South Africa

If you are interested or have further questions, please contact Maureen Dimont (mdimont@arvofoundation.org or +1.240.221.2950).

ARVO members: Invest in AFER

Your membership in ARVO is vital to your professional growth and development. Your contribution to the continuance of vision research is equally important. That's why AFER encourages you to invest in the future of vision research with an annual contribution of \$50 or more. You can make this investment at the same time you renew your ARVO membership or online at **www.arvofoundation.org.**

Host-a-Researcher aims for another successful year

FER's Host-a-Researcher Award Program, now in its second year, brings investigators from economically developing countries to the ARVO Annual Meeting to introduce them to the latest trends and developments in eye and vision research and expand their knowledge base in specific research areas.

Thanks to the support of generous donors and the time of meeting attendees who agree to act as hosts, the program gives visiting researchers opportunities to network with fellow researchers, colleagues, mentors and thought leaders while simultaneously gathering information that will be useful to developing a robust eye research program in their respective countries.

AFER thanks the generous investors in the 2009 Host-a-Researcher Award Program (as of December 5, 2008)

- Alcon South Africa
- Champalimaud Foundation



Benedictus Ajayi, the first Visiting Researcher under the AFER Host-a-Researcher Program, reminisced at the American Academy of Ophthalmology meeting with Joanne Angle, ARVO/AFER executive director, and Robert Ritch, MD, chair of the AFER Program

- The Glaucoma Foundation
- Joyce Tombran-Tink, PhD
- Merck & Company, Inc.

Your support of the Host-a-Researcher Award Program enables AFER to extend awards to additional visiting researchers. For more information or to make a donation, please contact Maureen Dimont (mdimont@arvofoundation.org or +1.240.221.2950).



2008 Host-a-Researcher participants at the ARVO Annual Meeting. Back row, left to right: Vladimir Kikilo, ITAR TASS Russian News Agency; Host Bill Merrigan; Constantinos Kakoulidis, Slovakia; Ognjen Zrinscvak, Croatia; Host Pratap Challa; Host Zaher Sbeity; Vital Potyomkin, Russia; Host Elena Ilitchev; Host Paul Lee. Middle row, left to right: Host Junko Hori; Host J. Mark Petrash; Michael Gyasi, Ghana; Organizer Robert Ritch; Elena Takhchidi, Russia. Front row, left to right: Susan Williams, South Africa; Adun Ogunro, Nigeria; Aistè Damijonaitytè, Lithuania; Bimbo Ashaye, Nigeria; Nadeema Gallow, South Africa.

THICK FORE

AFER Board of Governors welcomes new members

Thomas W. Nugent



Thomas W. Nugent estab-York investment banking boutique, to

Thomas W. Nugent

lished Nugent & Company, a New provide financial advisory services to institutional

clients, corporations and investment firms. Nugent's experience has emphasized private placements and advisory services for private equity and hedge funds. He has assisted institutional investors and fund general partners with consideration of key investment, fund marketing, fund structure and financial management issues. Investor relationships include numerous family offices, public and private pension funds, university endowments, consulting firms, and foundations in the United States, Canada, Europe, and Asia.

Nugent's fund advisory capabilities are supported by earlier experience in corporate finance, mergers and acquisitions in industry sectors including publishing and information, chemicals and manufacturing. He was senior advisor to Mitsubishi Bank's Mergers & Acquisitions Division in New York. Prior to that, he was a corporate finance associate in the New York offices of Brown Brothers Harriman & Co. and Wood Gundy, Inc. Nugent also worked at EcoPlan International in Paris, France, a management consulting firm, and was an energy analyst in the US Department of Energy's Office of International Affairs in Washington, DC.

ARVO Foundation for Eye Researc

Nugent leads the Harvard Business Roundtable, a New Yorkbased business conference group. He is also the founder and president of The Russia Society, Inc., a nonprofit organization that fosters exchanges and organizes programs relating to the culture, politics and commerce of Russia and the

Confederation of Independent States. He is a graduate of Harvard College (BA Chemistry) and the Wharton School of the University of Pennsylvania (MBA Finance).

Nicholas G. Bazan



PhD

Nicholas G. Bazan, MD, PhD, is the director of the Louisiana State University Health Sciences Center Neuroscience Center of Excellence (New

Bazan, MD,

Orleans), as well as Professor of Ophthalmology, Biochemistry and Molecular Biology, and Neurology. He holds the Yvette C. and Ernest C. Villere Endowed Chair for the Study of Retinal Degenerations and the Boyd Professorship, the highest academic honor in the LSU system.

Bazan received his MD from the University of Tucuman, Argentina, then was a postdoctoral fellow at Columbia University's College of Physicians and Surgeons and Harvard Medical School. He has achieved international renown for his pioneering studies on the release of lipid messengers in brain ischemia, trauma and seizures. He has also uncovered fundamental events that sustain the health of retinal photoreceptors.

Bazan has edited 13 books and published over 400 articles and has been the editor, or a member of the editorial board, of 15 scientific journals, including the Journal of Neuroscience Research and the Journal of Clinical Neuroscience. He served as president of the American Society of Neurochemistry (1999–2001) and board member of the William Harvey Medical Research Foundation and of the Fondazione Giovanni Lorenzini in Houston, TX.

How you can invest in eye research

FER provides vision scientists with opportunities to expand their knowledge and share information. AFER relies on the support and generosity of those who value our mission of offering cutting-edge science and education to train and develop vision researchers. We offer numerous opportunities for you to invest in our crucial work.

Monthly contribution:

Authorize AFER to withdraw a monthly donation from your Visa or MasterCard.

Gifts of stock: AFER accepts gifts of stocks and securities.

Charitable bequest: You may choose to name AFER in your will or estate. Gifts can be a specific dollar amount or percentage of your estate, a particular item or an asset.

Life insurance: Designate AFER as a beneficiary of an existing or new policy.

Real estate: Deed land, residences, second homes or even vacation properties to receive tax advantages.

Royalties: Many of our investors are ARVO members who enjoy royalties from patents and copyrights. Contributing these funds (all or in part) can provide donor tax incentives.

Tributes and Memorials:

Gifts in the name of colleagues, friends or family pay honor in lieu of candy and flowers.

Let your money work for you and vision research. AFER is a 501(c)3 non-profit charitable organization, which means that donations are tax deductible to the fullest extent allowed by US law. To learn more about AFER or to make a ontribution, please contact Maureen Dimont (mdimont@arvofoundation.org or +1.240.221.2950).

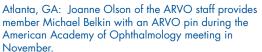
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ARVO @ OTHER MEETINGS



Portoroz, Slovenia: Presenters at the ARVO-sponsored "Making the Case for Funding Eye Research" session at the European Vision and Eye Research meeting were D. Balasubramanian, Carlos Von Bonhorst, Joanne Angle and Eberhart Zrenner.







Anaheim, CA: American Academy of Optometry President-elect Mark Eger contacts Congress about vision research funding from the NAEVR booth.

All the important vision-related events in one spot!

www.arvo.org/calendar

ARVO's searchable calendar allows you to easily identify meetings that meet your needs, by location, organization, topic or CMEs!

You can post your own meeting announcements directly on the site. Just click "Add meeting" and provide all the details for your event.

ARVO Ethics Poster Available

RVO has published a poster on "Ethics and Scientific Publishing" that outlines ethical issues and consequences when writing scientific papers. This valuable poster is free and may be downloaded at www.arvo.org/ ethicsposter.



The International Society for Imaging in the Eye has joined ARVO

7TH ANNUAL MEETING May 1–2, 2009 Fort Lauderdale Florida

Abstract Deadline: February 13, 2009

www.arvo.org/isie

Upcoming ARVO events



January 15–18, 2009 Hyderabad, India

Nearly 1,000 eye and vision researchers will attend the second Asia-ARVO Meeting. Hyderabad has fast become the Singapore of India, and yet maintains an old world charm. For program information and more, go to **www. asiaarvo2009.org,** or contact the meeting secretariat at asiaarvo@lvpei.org.



ARVO/International Society for Imaging in the Eye May 1–2, 2009 Fort Lauderdale, FL

Submit your abstract and attend this two-day event that focuses on original research on current advances, as well as state-of-the-art technology in ophthalmic imaging. Learn scientific principles behind ophthalmic imaging, discuss clinical applications of imaging technologies, explore new research and recent advances in imaging, and meet with vendors who provide the latest products and services for the field of ophthalmic imaging. For more information, go to **www.arvo.org/isie** or contact Ellyn Terry (eterry@arvo.org, +1.240.221.2935).



May 8, 2009 Naples, FL Advances in Understanding the Structure and Function of the Retina

ARVO will co-sponsor a symposium at the Vision Sciences Society (VSS) Annual Meeting. In the last

few years, there have been major advances in understanding the structure and function of the primate retina. Dennis Dacey, PhD (University of Washington), and Paul R. Martin, PhD, (University of Melbourne), will summarize the advances in our understanding of the anatomy and physiology of the primate retina. Austin Roorda, PhD (University of California, Berkeley), and Donald C. Hood, PhD (Columbia University), will review the recent advances in using optical imaging (adaptive optics) and structural imaging (optical coherence tomography) to study the human retina in vivo.

ARVO Annual Meeting registrants are invited to attend the symposium for free upon showing their ARVO name badge. Attendees must pay for VSS meeting registration if attending additional sessions. For more information, see **www.visionsciences.org.**



July 31-August 1, 2009 Bethesda, MD

Ophthalmic Drug Delivery Systems for the Treatment of Retinal Diseases

The conference, co-sponsored by the National Eye Institute (NEI), will focus on issues related to ocular drug delivery via an integrated approach to discussing benchmarks in drug development, delivery platform technology and proof of concept models. For more information, go to www.arvo.org/serc or contact Rhonda Williams (rwilliams@arvo.org, +1.240.221.2908).



ARVO/ISOCB Meeting September 2009 Portugal

The International Society for Ocular Cell Biology (ISOCB) is now an official part of ARVO. Former members of the ISOCB are invited to become ARVO members. The ISOCB meeting has merged with the former ARVO Ocular Cell and Molecular Biology (OCMB) meeting, and has been renamed the ARVO/ISOCB Meeting. For more information, go to **www.arvo.org/isocb** or contact Rhonda Williams (rwilliams@arvo.org, +1.240.221.2908).



Sponsored by the ARVO Foundation for Eye Research, the CTES offers basic one-day courses for those in the early stages of their career as well as an in-depth, three-day course covering principles and concepts of clinical trials for the experienced researcher.

ARVO is planning three one-day courses and two three-day courses in 2009. Look for more details at **www.arvo.org/ctes** or contact Jot Grammer (jgrammer@arvo.org, 1.240.221.2933). ■

Meeting sessions online

Selected sessions recorded at the ARVO 2008 Annual Meeting are now available at **www.arvo.org/video.** Streaming video of each presentation, accompanied by the corresponding slides, offers another opportunity to participate in these popular sessions.

Retinal Dystrophies Faculty Position at the Wilmer Eye Institute

Job Description: The ideal candidate is an MD or MD/PhD who has expertise and involvement in the diagnosis and management of patients with retinal dystrophies and proficiency in clinical electrophysiology is a prerequisite. Prior participation in clinical trials of new treatments for retinal or macular dystrophies is advantageous. In addition to clinical expertise in retinal dystrophies, the candidate should have an active research program related to these diseases. The research can include a range of approaches, including basic laboratory studies, psychophysical or electrophysiological studies, genetic and other experimental treatments, or a combination thereof. The faculty member will have an opportunity to build an outstanding program in the field of retinal dystrophy, working in a brand new 220,000 square foot Wilmer building (pictured) in a highly interactive and exciting environment in collaboration with distinguished scientists throughout the Johns Hopkins University School of Medicine. Faculty rank and support will be dependent upon the successful applicant's experience and accomplishments.





The Johns Hopkins University is an equal opportunity, affirmative action employer. Women and minority candidates are strongly encouraged to apply.

Candidates interested in the position are encouraged to submit a curriculum vitae and letter of interest no later than January 31, 2009 to:

Neil Bressler, MD and Don Zack, MD, PhD, Search Committee Chairs Department of Ophthalmology The Johns Hopkins University School of Medicine Maumenee 7th Floor Baltimore, MD 21287 nmboffice@jhmi.edu

NEI funding increased \$6.5 million in FY 2008

lthough the National Eye Institute's (NEI) initial budget of \$667.1 million for FY2008 was equal to that of 2007, the Supplemental Appropriations Act signed by President Bush on June 30, 2008, provided an additional \$3.5 million to NEI, which also received \$3 million from the NIH Director's Bridge

Fund.

NAFVR

National Alliance For

Despite this \$6.5 million increase, NEI funding did not keep pace with the biomedi-Eve And Vision Research cal inflation rate of 3.5% between FY2007 and FY2008.

> Congress has yet to finalize FY2009 Labor, Health and Human Services, and Education (LHHS) appropriations, which includes National Institutes of Health (NIH)/NEI funding. On September 30, the President

signed a Continuing Resolution that flat-funds the NIH/NEI at the initial FY2008 funding level until March 6, by which time the 111th Congress must take action.

	FY2008+ Final	FY2009 Budget	FY2009 House	FY2009 Senate
NIH	\$29.38 B	\$29.2 B 0%	\$30.4 B +3.9%	\$30.2 B +3.5%
NEI	\$670.7 M	\$667.8 M +0.1%	\$690.7 M +3.5%	\$687.3 M +3.0%

2008 figures include original appropriations sums of \$29.2 billion NIH/667.1 million NEI plus supplemental appropriations of \$150 million NIH/\$3.5million NEI. Final FY2008 NEI excludes \$3 million from Director's Bridge Fund.

Medical research can stimulate economy

The \$100.3 billion economic recovery package introduced by the Senate in November — which includes \$1 billion for the National Institutes of Health (NIH) — acknowledges the value of medical research to stimulate the economy, according to former NIH director Harold Varmus, MD.

Varmus (president and CEO, Memorial Sloan-Kettering Cancer Center, and science advisor to the Obama campaign) was speaking at a session during the annual meeting of the Society for Neuroscience.



Left to right: John Porter, Wendell Primus, PhD, and Harold Varmus, MD, speak about the short- and long-term value of biomedical research

Congress now understands the short-term value of research grants, said Varmus, including salaries, indirect expenses with universities, supplies and equipment in stimluating the economy, as well as the long-term return on investment, which he cited at 150%.

Varmus was joined by Wendell Primus, PhD, senior policy advisor to House Speaker Nancy Pelosi (D-CA), and John Porter (Hogan & Hartson), who serves as NAEVR's legislative counsel. Primus predicted that "research would be treated well in the next Administration and Congress," adding that Speaker Pelosi "is a true believer."

Porter stated that, in addition to increases to "bring NIH back to where it should be after the devastating impact of five cycles of flat funding and biomedical inflation," NIH needs sustainable annual increases along the lines of 3%, plus the biomedical inflation rate (currently 3.5%).

Varmus noted that NIH reauthorization was unlikely in 2009, as the Scientific Management Review Board that was created by the NIH Reform Act of 2006 to make recommendations on the structure of NIH was just formed and had yet to meet. (See related story on page 21.)

Vision research funded separately

For the first time, FY2009 defense appropriations included a separate line item for vision within the Peer Reviewed Medical Research Program (PRMRP), which is funded at \$4 million. The National Alliance for Eye and Vision Research (NAEVR) advocated for this dedicated funding,

educating House and Senate Defense Appropriations Subcommittee members about the devastating eye injuries experienced by soldiers in Iraq and Afghanistan.

The final FY2009 Defense, Military Construction/Veterans Affairs and Homeland Security spending bills were included in the Continuing Resolution passed by Congress and signed by the President on September 30.

Vision was previously one of 21 areas of research competing for a pool of \$50 million in the PRMRP. In FY2009, vision researchers will compete against each other for the \$4 million administered by the Army to target the various causes, effects and treatment of visual injury resulting from exposures.

Although vision researchers have competed successfully in the PRMRP in the past — for example, in FY2006, the first year of eligibility, vision researchers were awarded \$5.4 million — the competition has increased significantly, primarily due to a new structure for award mechanisms. Awards are likely to be announced by press time, so visit **www.eyeresearch.org** for more updates.



Colonel Robert Mazzoli, MD (left) (Madigan Army Medical Center), with NAEVR Advocacy Manager David Epstein at a September 2008 Schepens Eye Institute Symposium on Military Eye Trauma

Last fall, the Department of Defense also announced an additional \$92 million in FY2008 funding available through the mid-year Supplemental Appropriations Act. The Deployment Related Medical Research Program specifically requested grant proposals in the vision space, including visual/ocular trauma treatment and rehabilitation, traumatic brain injury and wound infection. Awards are expected to be announced in the first quarter of this year.

Kington testifies about economic impact of research

Each \$500 million of additional National Institutes of Health (NIH) funding translates into 1,400 grants and 9,000 jobs, said Raynard Kington, MD, PhD, acting director of the National Institutes of Health during November testimony before a House Energy and Commerce Committee Health Subcommittee.

At the hearing, entitled "Treatments for an Ailing Economy: Protecting Health Care Coverage and Investing in Biomedical Research," Kington addressed the short- and long-term economic impact of NIH grants, noting that any economic stimulus funds made available to the NIH could be administered quickly with little overhead.

Subcommittee member Michael Burgess, MD, (R-TX) stressed that the NIH Reform Act of 2006 had authorized NIH increases which had not translated into appropriations increases. He reiterated the Committee's intention that legislation be enacted for sustained increases, whether through an economic stimulus bill or final FY2009 appropriations.

Council of Councils hears about NIH priorities



Above: NIH's Scientific Management Review Board (see NEI Report, page 21) will meet early this year to begin defining its scope of activity, Acting Director Raynard Kington (left) told the NIH Council of Councils at a November 2008 briefing. Lana Skirboll, MD, acting director of the Division of Program Coordination, Planning, and Strategic Initiatives, looks on.

Below: Lana Skirboll with Lenworth Johnson, MD, of the University of Missouri/ Columbia who serves as the National Advisory Eye Council's representative on the Council of Councils.



Hageman highlights AMD advances at AEVR briefing

RVO member Gregory Hageman, PhD (University of Iowa), described dramatic advances in age-related macular degeneration (AMD) research at a Congressional briefing in September, sponsored by the

Alliance for Eye and Vision Research (AEVR) during



Gregory Hageman, PhD (right), discusses the dramatic implications of his AMD research with AEVR Executive Director James Jorkasky.



Left to right: Tara Cortes, PhD, RN, Carl Tuvin (Tuvin Associates), Cynthia Stuen, PhD, and David Moore (Ad Hoc Group for Medical Research). Cortes and Stuen represented cosponsor Lighthouse International.

International AMD Awareness translational AMD Awareness and translation in A/ transl

The identified gene complement factor H (CFH) and its protein product are normally engaged in

the control of a portion of the body's immune system. Variants in the gene result in poor regulation of this system and can lead to the development of AMD. Worldwide, AMD affects vision and quality of life for more than 30 million people.

In addition to directing the Cell Biology and Functional "The recent scientific and translational progress in AMD research is nothing short of spectacular." — Gregory Hageman, PhD

AEVR's briefing co-

sponsors included:

AMD Alliance

International

International

Lighthouse

Research

Association for

Research in Vision

Alliance for Aging

Ad Hoc Group for

Medical Research

and Ophthalmology

newly formed company that is developing AMD treatments, including commercializing a therapy for replacing CFH in patients with AMD and possibly in genetically-susceptible individuals.

Hageman announced preliminary, unpublished findings in patients with liver transplants that support the direction and scope of his research. Normal levels of healthy CFH protein protect against AMD. Since most of the CFH is made in the liver, liver transplant recipients offer an opportunity to study what occurs when an individual receives a different

form of CFH following transplantation.

Researchers hope that these studies will reinforce the concept of providing AMD patients with doses of the protective protein

> or, in the future, with gene therapy approaches that would allow the liver to produce the protein on its own.

Hageman also noted newly published observations of possible relationships between CFH and obesity, coronary artery disease, myocardial infarction and stroke, among other conditions — findings which facilitate new opportunities for trans-NIH research.

For more information about AMD and other aging eye diseases, refer to *The Silver Book: Vision Loss*, published by the Alliance for Aging Research in

Genomics Laboratory at UI, Hageman is also chief scientific officer of Optherion, Inc., a

partnership with NAEVR at www.silverbook.org/visionloss.



Hageman and briefing attendee Rep. Bruce Braley (D-IA)



Erik Fatemi, who works for Sen. Tom Harkin (D-IA), chair of the Senate LHHS Appropriations Subcommittee, hears about Hageman's translational research.



Hageman met Rep. Dave Loebsack (D-IA), in whose district the University of Iowa is located, during a break in a hearing by the House Armed Services Committee.

Gagliano named director of the Vision Center of Excellence

RVO member Colonel Donald Gagliano, MD, has been named director of the new Vision Center of Excellence (VCE). Gagliano was previously director of the Clinical Investigations Regulatory Office in the US Army Medical Research and Materiel Command. Claude Cowan, Jr., MD, a former member of the National Alliance for Eye and Vision Research (NAEVR) board, will serve as the Center's deputy director.

VCE will address the prevention, diagnosis, mitigation, treatment and rehabilitation of military eye injuries, as well as coordinate work on the new Military Eye Injury Registry. The Center will also facilitate vision research, including research on prevention, visual dysfunction related to traumatic brain injury and military eye injuries. Although the Vision Center of Excellence is a Department of Defense program, it will coordinate with the Department of Veterans Affairs.

VCE and the Injury Registry were provisions of the Military Eye Trauma Treatment Act that were included in the National Defense Authorization Act, passed in early 2008 but not funded at that time.

Subsequently, Congress included \$6.9 million in funding in the FY2009 Military Construction/ Veterans Affairs appropriations bill passed in late September 2008, with an additional \$2 million for development of the Injury Registry.

NAEVR was pleased to host Gagliano a few days after his appointment at a meeting of the NAEVR Board of Directors at the American Academy of Ophthalmology annual meeting.



Colonel Donald Gagliano, MD (center), with NAEVR Board Member David Pyott (left) (Allergan, Inc.), and NAEVR president and ARVO member Stephen Ryan, MD (Doheny Eye Institute)



Gagliano (left) with Tom Zampieri, PhD (Blinded Veterans Association), who advocated strenuously for the creation and funding of the Vision Center and Injury Registry

Ophthalmic Drug Delivery Systems for the Treatment of Retinal Diseases: Basic Research to Clinical Application

July 31–August 1, 2009 The Natcher Conference Center National Institutes of Health Bethesda, MD (conveniently located near Washington, DC)









ARVO 2009 Summer Eye Research Conference

www.arvo.org/serc09

The Zerhouni legacy

n October 2008, Elias Zerhouni, MD, stepped down as NIH director after serving nearly seven years. During his tenure, Dr. Zerhouni worked to address large scientific infrastructure needs and opportunities that benefit all of medical research. He leaves a lasting legacy of accomplishment and innovation marked by the creation of the NIH Roadmap for Medical Research, the NIH Neuroscience Blueprint and an increased emphasis on genetics and translational research.

Roadmap for Medical Research

The Roadmap initiative allowed Dr. Zerhouni to address the need for a funding mechanism for large and novel scientific endeavors that benefit all of medicine but are beyond the scope of any one institute or center within NIH. The NIH Roadmap is unique in serving as an incubator to explore potentially transformative approaches to research. As initiatives mature, they will be replaced by other emerging needs.

NEI has profited from the Roadmap, particularly with the nanomedicine initiative where funded grants are studying various biological systems, in-

> cluding a means to engineer light sensitive neurons in the inner retina using lightactivated ion channels and receptors.

Neuroscience Blueprint

The NIH Blueprint for Neuroscience addresses critical, central questions in the field. Collectively, 16 different NIH institutes have portfolios involving neurons

in the nervous system. Under the Blueprint, these institutes contribute a modest sum to fund targeted programs in neurodevelopment, neurodegeneration and neuroplasticity. The Blueprint also addresses Congressional interest in trans-NIH initiatives to solve common problems.

NEI has already benefited from its association with the Blueprint through programs in neural circuit development, the creation of probes to monitor plasticity and drug delivery to the central nervous system.

Genetics

Since 2005, NIH has launched two high-profile genetics initiatives to leverage the increasing power and affordability of genomics tools. The database of genotype and phenotype (dbGaP), an outgrowth of the new NIH Genome Wide Association Studies policy to collect and share NIH-funded data with the research community, will allow researchers to access large data sets of genotype/phenotype information.

NEI has the distinction of being the first institute to contribute to dbGaP with Age-Related Eye Disease Study (AREDS) data. AREDS data was used to identify complement factor H as the first risk factor gene for AMD.

The Genetic Association Information Network (GAIN), a "public-private" partnership with industry and the Foundation for NIH, raised \$26 million for the network in cash and in-kind resources, primarily from Pfizer Inc and Affymetrix, Inc. to genotype over 18,000 samples in six major common diseases. This genomic data is being made available to investigators for study.

The Genes and Environment Initiative (GEI), a program that weds genomics with exposure biology, also includes genome-wide association study data.

Translational research

One of the key objectives of the NIH Roadmap for Medical Research is to re-engineer the clinical research enterprise, mainly through the Clinical and Translational Science Awards (CTSAs), launched in 2006. The CTSA consortium consists of 38 health centers in 23 states and will ultimately grow to 60 institutions. See **www.ctsaweb.org**

The NEI and vision research community have a very rich history of support for clinical research. Recent efforts with RPE65 gene transfer for Leber congenital amaurosis embody the "bench to bedside" ethos.

Championing vision science

Dr. Zerhouni was a champion for vision science. In key-note addresses and Congressional testimony, he used age-related macular degeneration (AMD) and results from AREDS as prime examples of the effort to lessen disease burden by developing therapies that delay the onset of severe stages of geriatric disease.

Some of Dr. Zerhouni's key talking points included the discovery of the CFH gene in AMD and NEI's use of the newly created haplotype map of the human genome, created by the International HapMap Project. He also highlighted NEI's considerable investment in neovascular research as a factor in developing anti-VEGF therapies.

What's next?

Raynard Kington, MD, PhD, is now serving as Acting Director of NIH. Dr. Kington earned undergraduate and medical degrees from the University of Michigan and completed a residency in Internal Medicine. As a Robert Wood Johnson Clinical Scholar at the University of Pennsylvania, he completed an MBA and a PhD in Health Policy and Economics from the Wharton School. Dr. Kington has held many positions at NIH, most recently as NIH Deputy Director.



Paul A. Sieving, National Eye Institute Director



The structure of the National Institutes of Health

The NIH operates under the authority of two types of legislation: Annual appropriation acts provide budget funds, while periodic reauthorization acts provide the statutory prerogative to conduct and sponsor research. The NIH Reform Act of 2006, P.L. 109-482, provided a new three-year jurisdiction for the agency. Several of the bill's features stand in considerable contrast to past legislation:

- The number of institutes and centers (ICs) is capped at 27 — the existing level.
- The director of the NIH is given new oversight and coordination responsibilities over the existing ICs.
- A reporting system is to be developed so Congress can evaluate the NIH research portfolio.
- The research portfolio is to be balanced, free of unnecessary duplication, collaborative and cross-cutting.

- A Common Fund was created to allow the NIH director to fund trans-NIH research. It may grow in size from one year to the next, but may not drop.
- When the Common Fund grows to 5% of the NIH budget, the NIH director, in consultation with the Council of Councils, will submit a recommendation to Congress regarding the amounts to be transferred to the Common Fund.

One feature of interest to ARVO members is the bill's call for the establishment of a Scientific Management Review Board (SMRB, see sidebar). The SMRB is charged with conducting periodic reviews and making recommendations to Congress regarding the optimal structure of the NIH.

Enhancing Peer Review at the NIH http://enhancing-peer-review.nih.gov

Although Elias Zerhouni has left NIH, his peer review legacy continues. His comprehensive overhaul of the system began in June 2007, with a year-long deliberative effort to gather feedback and input

from both internal and external stakeholders and customers. This spring, a design implementation phase identified key recommendations. Then, the Peer Review Oversight Committee established four implementation working groups, coordinated by Dr. Alan Willard, Scientific Review Branch, National Institute of Neurological Diseases and Stroke.

Engage the best reviewers

In spring 2009, new reviewers will be given additional flexibility regarding their tour of duty. A toolkit will be prepared to present best practices for recruiting reviewers. Training related to the changes in peer review will be provided, and pilots will be conducted to determine the feasibility of using high-bandwidth support for review meetings.

Improve quality and transparency

Starting in May 2009, applications will be scored on a scale of 1 to 7. Reviewers will provide feedback through scores and critiques of each criterion in a structured summary state-

> ment. Streamlined applications will now receive a preliminary score. Starting with the January 2010 receipt dates, R01 applications will be restructured to align with the review criteria and will be shortened to a 12-page research plan.

Ensure balance and fairness

Starting with the January 2009 receipt dates, applicants will be allowed to submit only one amended application (A1). A defi-

nition of Early Stage Investigators (ESI) has been established, and ESI applications will be clustered for review. NIH will consider clustering clinical research applications as well.

Continuous review

NIH will conduct evaluations of these peer review changes and will continuously innovate and change the system. ■

– Lorè-Anne McNichol Acting Deputy Director National Eye Institute

Scientific Management Review Board

Chair: Norman R. Augustine (former Chairman, Lockheed Martin)

Jeremy Berg (director, NIGMS)

William R. Brody (past president, The Johns Hopkins University)

Gail Cassell (vice president for Scientific Affairs, Eli Lilly)

Anthony Fauci (director, NIAID)

Dan Goldin (past administrator of NASA)

Richard Hodes (director, NIA)

Stephen Katz (director, NIAMS)

Thomas Kelly (director, Sloan-Kettering Institute)

Story Landis (director, NINDS)

Elizabeth Nabel (director, NHLBI)

John E. Niederhuber (director, NCI)

Deborah Powell (dean for Clinical Science, University of Minnesota)

Griffin Rodgers (director, NIDDK)

William Roper (dean, School of Medicine, University of North Carolina)

Arthur Rubenstein (dean, School of Medicine, University of Pennsylvania)

Solomon H. Snyder (professor of Psychiatry, The Johns Hopkins University)

Lawrence Tabak (director, NIDCR),

Harold Varmus (president, Memorial Sloan-Kettering Cancer Center)

Eugene Washington (provost, University of California, San Francisco),

Huda Zoghbi (HHMI/Baylor College of Medicine).

In the past, several members of the Board have proposed various ideas for restructuring the NIH. These include merging ICs into five (or some other number smaller than 27) larger, more efficient institutes; creating IC "budget clusters" to streamline administration; or setting up a system of IC competition for appropriated funds.



Lorè -Anne McNichol, PhD

When no really means NO



Paul L. Kaufman, MD

Did you know that IOVS ...

- receives over 1,600 articles each year?
- publishes over 750 articles each year?
- articles average three rounds of review/ revision before acceptance?
- publishes online all abstracts of the ARVO Annual Meeting?
- is available online to all members and subscribers?
- has supplementary data, including text, tables, art and movies available online only?
- publishes your letters to the editor and responses online?

One of the harder responsibilities of being editor-in-chief is rejecting articles. There are a number of good reasons that an article is rejected, and I include an explanation in every letter of rejection, regardless of the stage in the review process. *IOVS* has a hard-earned and well-deserved reputation of publishing leadingedge research and information about our field, and the associate editors, Editorial Board, reviewers and I work

diligently to maintain the high standards that earned the journal's reputation.

Once an article has been reviewed and rejected, I seldom overrule the process absent a fundamental flaw in the

system or a very compelling reason to do so. As I'm sure everyone realizes, *IOVS* receives many such rebuttals, and we cannot re-review every manuscript that did not survive the first round or even the final article that has been through several rounds of revision. For a quick review of the numbers of submissions and the number of articles accepted and published over the past eight years, please see the charts on this page.

Why do we reject an article that the author has worked so hard to produce? Here are the primary reasons for rejection:

- The findings on the topic are already well known.
- It makes no novel contribution to the literature.
- The scope and approach do not meet the scope established for articles in *IOVS*.
- The concepts and methods appear flawed.
- Poor grammar and English usage.

Investigative Ophthalmology

& Visual Science

Reviewers advise that the article does not

meet the quality standards for the journal, particularly given the space limitations.

If you receive a letter stating that an article may be considered for review if the grammar and English usage are improved, you

may request assistance from one of our volunteer editors by contacting Dave Roddy (droddy@arvo. org), or seek services at your institution. When this is complete, the paper can then be resubmitted and assessed again. A review is not guaranteed until we are satisfied that it is clearly written and easy to understand. If we do not hear from you within four weeks, we will consider the paper to have been withdrawn.

Regardless of the reason for a rejection, thank you for considering *IOVS* for the publication of your research. But remember that no really does mean no.

Updated Declaration of Helsinki

The World Medical Association adopted a revised Declaration of Helsinki in October 2008. The major change is a requirement to register all clinical trials in a publicly accessible database prior to recruiting the first subject. ARVO continues to support this policy, which may be viewed in full on the ARVO Web site at www.arvo.org/helsinki or on the World Medical Association Web site at www.wma.net/e/policy/b3.htm.

What does the world need to know about vision research?

Tell us by joining the Journals Press Working Group. The group will help identify the hottest articles in *IOVS* and *JOV* prior to publication! We're looking for one or two members from each section and cross-sectional group to flag articles that will be most interesting to the scientific community and/or the public. We'll write the press releases if you tell us what we should be writing about!

What does it involve? Just 15 minutes or so a week to review the contents list on e-mail, read a few abstracts and answer one or two questions about why an article is important to the world.

Interested? Please contact Karen Colson (kcolson@arvo. org) and help ARVO broaden awareness of key issues in vision and ophthalmology research.

JOV publishes vision meeting abstracts, special issues

Fall Vision Meeting abstracts

Abstracts from the Fall Vision Meeting, which was held October 24–26 in Rochester, NY, were published in the *Journal of Vision* and are available at http://journalofvision.org/8/17. These abstracts are published by ARVO as a service to the vision science community. The Fall Vision Meeting is a small, high-quality scientific meeting focused on vision, color and noninvasive assessment techniques. It is organized in collaboration with the Optical Society of America (OSA).

Special issues

The *Journal of Vision* has just completed publication of three special issues in response to calls for papers.

Perceptual organization and neural computation, with guest editors Sergei Gepshtein (Brain Science Institute, RIKEN, Japan and Salk Institute for Biological Studies, US), and James H. Elder (York University, Canada, and Laurence T. Maloney, New York University, US).

The goal of this special issue was to highlight new methodological and theoretical developments in visual psychophysics, visual neuroscience and computational vision, with a particular emphasis upon the computational and neural bases of these findings.

All articles can be viewed free online at http://journalofvision.org/8/7/.
Neuroimaging in vision science, with guest editors Andy Smith (Royal Holloway, University of London, London, UK), David Heeger (New York University, New York, US), Geoff Boynton (University of Washington, Washington, US) and Anthony Norcia (Smith-Kettlewell Eye Research Institute, California, US).

This issue collected a number of high-quality imaging studies of visual processing and presented them in a journal deemed by the guest editors to be used by vision researchers of varied methodological persuasions. The editors hope the collection will both serve a useful scientific purpose as well as stimulate an increase in the number of imaging submissions to the *Journal of Vision*.

Read the full set of articles at http://journalofvision.org/8/10/.

Eye movements and the perception of a clear and stable visual world, with guest editors Susana Martinez-Conde (Barrow Neurological Institute, Arizona, US), Rich Krauzlis (Salk Institute for Biological Studies, California, US), Joel Miller (Smith-Kettlewell Eye Research Institute, California, US), Concetta Morrone (Università Vita-Salute S Raffaele, Milan, Italy), David Williams (University of Rochester, New York, US) and Eileen Kowler (Rutgers University, New Jersey, US).

This special issue offers a broad compilation of recent discoveries concerning the perceptual consequences of eye movements in vision, as well as the mechanisms responsible for producing stable perception from unstable oculomotor behavior.

The complete list of articles is available at http://journalofvision.org/8/14/.

Looking for media attention? Let ARVO help!

f your research is being published in *JOV* (or *IOVS*), and your institution or company is preparing a press release, we can help get the word out to the scientific community and to science writers from the *New York Times* to *Science* magazine. We also collect e-clippings of news items about articles from our journals and about our members and the entire field of vision research.

Let your press information officer know that ARVO will consider collaborating on press releases. Please keep in mind that while all articles in *JOV* and *IOVS* are noteworthy, we cannot prepare releases for every one. For help or information, please contact Joanne Olson (jolson@arvo.org.)





Editor-in-Chief Andrew Watson, PhD, met with Assistant Director of Journals Alice O'Donnell and Director of Publishing and Communications Karen Colson in the ARVO offices to discuss progress and plans for JOV.

COVANCE

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See Our Depth in Ocular Drug Development

Covance, one of the world's leading CROs, and the Comparative Ophthalmic Research Laboratories (CORL) a consortium of internationally respected vision scientists, offer a growing range of resources to reduce the time, money and risk associated with ocular drug development.

With a relationship going back more than a decade, the Covance/CORL alliance brings a breadth of expertise and depth of knowledge to both ocular drug development and the effects of drug compounds on the eye. From protocol development to ophthalmic drug administration and comprehensive GLP study designs, our team helps keep your study on time and in budget.

To find out more about how we can help maximize successful ocular study execution, visit **www.visionsciencealliance.com** and register for access to our new **Resource Center** where you can access content specifically created to help you make better informed decisions earlier in the drug development process.



