

ARVO news

www.arvo.org



Senior clinician-scientists on hand to dispense advice at the YO ARVO! Happy Hour: Natalie Afshari, MD; Emily Chew, MD, FARVO; and John Gottsch, MD, FARVO.



David Epstein, MD (second from right), chair of the Department of Ophthalmology at Duke University, shares career advice with aspiring clinician-scientists at the YO ARVO! Happy Hour during the American Academy of Ophthalmology meeting in Chicago last October.

Members organize first ARVO networking event at AAOphthalm meeting

By Pedram Hamrah, MD

During my tenure as the chair of the Members-in-Training (MIT) Committee, we helped develop a survey to capture the needs of trainees. Over 200 young clinician-scientists expressed a wish to have an ARVO networking event at the annual

American Academy of Ophthalmology (AAO) meeting. Out of this came the idea to organize a jointly sponsored networking event for clinician-scientists by AAO and ARVO.

The goal was to promote the clinician-scientist career and promote informal networking among ophthalmologists-in-

See *YO ARVO!*, page 2

Peng Tee Khaw: Making it personal

Last summer, the UK research enterprise was facing the possibility of cuts of up to 20% of the country's £6 billion science budget, as the government struggled to bring down the skyrocketing deficit. However, when the government announced its comprehensive spending review in late October, the science community came out relatively unscathed, with funding frozen at 2010–2011 levels for the next four years. Although this freeze may amount to cuts given expected inflation, UK researchers breathed a collective sigh of relief.

How did the UK government — and the public — come to realize the value of scientific research? Peng T. Khaw, MD, PhD, FARVO, believes that this outcome wasn't simply good luck.

ARVOnews: What was your reaction to the news on October 20 last year that research would be flat-funded, not cut?

See *Khaw*, page 12



Peng Tee Khaw, MD, PhD, FARVO, of Moorfields Eye Hospital/UCL, works with a young glaucoma patient.

Check out your 2011 Meeting Preview (enclosed)



Vote: 2011 ARVO Elections

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YO ARVO!, continued from page 1

training, young ophthalmologists interested in a clinician-scientist career and established clinician-scientists. This idea was supported by the AAO Young Ophthalmologists (YO) and ARVO MIT committees.

Lucia Sobrin, MD, MPH, a member of ARVO's MIT Committee, and I organized the pilot event "YO ARVO! Happy Hour: Exploring careers in



During the two-hour event, 25 invited established clinician-scientists mingled with more than 100

attendees, sharing their experience and insights as well as answering questions about career development, opportunities and challenges.

Many attendees asked to have the gathering repeated. AAO and ARVO have agreed to co-sponsor this event again for the 2011 AAO annual meeting, and we are looking forward to an exciting YO ARVO! next year. ■

"Great forum to meet and network with other clinician scientists."

— Lisa M. Nijm, MD
California

research" with help from Gail Schmidt and Neeshah Azam of AAO and Joanne Olson and Lori Methia of ARVO.

Russell van Gelder, MD, PhD, professor and chairman of the Department of Ophthalmology at the University of Washington, kicked off the event, outlining the importance of clinician-scientists and the impact they can have on patients' lives.

"I think it is great that young ophthalmologists involved with AAO and ARVO are collaborating, learning from each other, and building links between these two important organizations."

— Anthony P. Khawaja, MBBS
(YO International Subcommittee Member)
United Kingdom

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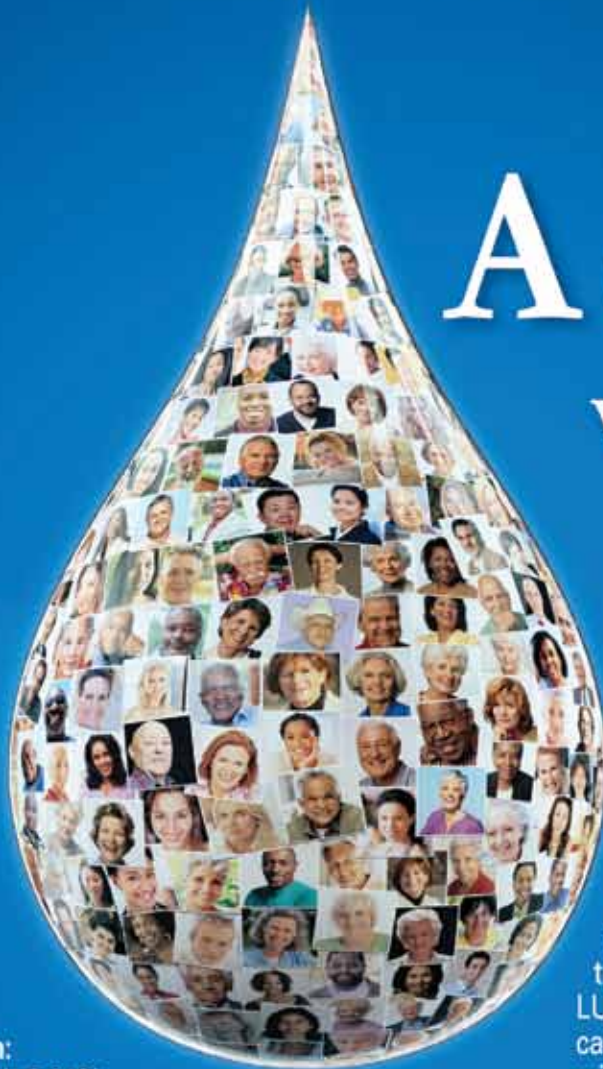
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Bimatoprost ophthalmic solution has been reported to cause changes to pigmented tissues: most frequently, increased pigmentation of the iris, eyelid, and eyelashes. Increases are expected as long as bimatoprost is administered. Iris color change may not be noticeable for several months to years. After discontinuation of bimatoprost, iris pigmentation is likely to be permanent, while eyelid and eyelash changes have been reported to be reversible in some patients. Patients should be informed of the possibility of increased pigmentation. The long-term effects of increased pigmentation are not known.

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Macular Edema: Macular edema, including cystoid macular edema, has been reported during treatment with bimatoprost ophthalmic solution. LUMIGAN® 0.01% and 0.03% should be used with caution in aphakic patients, in pseudophakic patients with a torn posterior lens capsule, or in patients with known risk factors for macular edema.

Adverse Reactions: In clinical studies with bimatoprost ophthalmic solutions (0.01% or 0.03%), the most common adverse event was conjunctival hyperemia (range 25%-45%). Approximately 0.5% to 3% of patients discontinued therapy due to conjunctival hyperemia with 0.01% or 0.03% bimatoprost ophthalmic solutions. Other common events (>10%) included growth of eyelashes and ocular pruritus.

Please see brief prescribing information on adjacent page.

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LUMIGAN® 0.01% and 0.03% (bimatoprost ophthalmic solution) is indicated for the reduction of elevated intraocular pressure in patients with open angle glaucoma or ocular hypertension.

CONTRAINDICATIONS

None

WARNINGS AND PRECAUTIONS

Pigmentation: Bimatoprost ophthalmic solution has been reported to cause changes to pigmented tissues. The most frequently reported changes have been increased pigmentation of the iris, periorbital tissue (eyelid), and eyelashes. Pigmentation is expected to increase as long as bimatoprost is administered. The pigmentation change is due to increased melanin content in the melanocytes rather than to an increase in the number of melanocytes. After discontinuation of bimatoprost, pigmentation of the iris is likely to be permanent, while pigmentation of the periorbital tissue and eyelash changes have been reported to be reversible in some patients. Patients who receive treatment should be informed of the possibility of increased pigmentation. The long-term effects of increased pigmentation are not known.

Iris color change may not be noticeable for several months to years. Typically, the brown pigmentation around the pupil spreads concentrically towards the periphery of the iris and the entire iris or parts of the iris become more brownish. Neither nevi nor freckles of the iris appear to be affected by treatment. While treatment with LUMIGAN® 0.01% and 0.03% (bimatoprost ophthalmic solution) can be continued in patients who develop noticeably increased iris pigmentation, these patients should be examined regularly.

Eyelash Changes: LUMIGAN® 0.01% and 0.03% may gradually change eyelashes and vellus hair in the treated eye. These changes include increased length, thickness, and number of lashes. Eyelash changes are usually reversible upon discontinuation of treatment.

Intraocular Inflammation: LUMIGAN® 0.01% and 0.03% should be used with caution in patients with active intraocular inflammation (eg, uveitis) because the inflammation may be exacerbated.

Macular Edema: Macular edema, including cystoid macular edema, has been reported during treatment with bimatoprost ophthalmic solution. LUMIGAN® 0.01% and 0.03% should be used with caution in aphakic patients, in pseudophakic patients with a torn posterior lens capsule, or in patients with known risk factors for macular edema.

Angle-closure, Inflammation, or Neovascular Glaucoma: LUMIGAN® 0.01% and 0.03% has not been evaluated for the treatment of angle-closure, inflammation, or neovascular glaucoma.

Bacterial Keratitis: There have been reports of bacterial keratitis associated with the use of multiple-dose containers of topical ophthalmic products. These containers had been inadvertently contaminated by patients who, in most cases, had a concurrent corneal disease or a disruption of the ocular epithelial surface.

Use With Contact Lenses: Contact lenses should be removed prior to instillation of LUMIGAN® 0.01% and 0.03% and may be reinserted 15 minutes following its administration.

ADVERSE REACTIONS

Clinical Studies Experience: Because clinical studies are conducted under widely varying conditions, adverse reaction rates observed in the clinical studies of a drug cannot be directly compared to rates in the clinical studies of another drug and may not reflect the rates observed in practice.

In clinical studies with bimatoprost ophthalmic solutions (0.01% or 0.03%), the most common adverse event was conjunctival hyperemia (range 25%-45%). Approximately 0.5% to 3% of patients discontinued therapy due to conjunctival hyperemia with 0.01% or 0.03% bimatoprost ophthalmic solutions. Other common events (> 10%) included growth of eyelashes and ocular pruritus.

Additional ocular adverse events (reported in 1% to 10% of patients) with bimatoprost ophthalmic solutions included ocular dryness, visual disturbance, ocular burning, foreign body sensation, eye pain, pigmentation of the periorcular skin, blepharitis, cataract, superficial punctate keratitis, eyelid erythema, ocular irritation, eyelash darkening, eye discharge, tearing, photophobia, allergic conjunctivitis, asthenopia, increases in iris pigmentation, conjunctival edema, conjunctival hemorrhage, and abnormal hair growth. Intraocular inflammation, reported as iritis, was reported in less than 1% of patients.

Systemic adverse events reported in approximately 10% of patients with bimatoprost ophthalmic solutions were infections (primarily colds and upper respiratory tract infections). Other systemic adverse events (reported in 1% to 5% of patients) included headaches, abnormal liver function tests, and asthenia.

USE IN SPECIFIC POPULATIONS

Pregnancy: Pregnancy Category C.

Teratogenic effects: In embryo/fetal developmental studies in pregnant mice and rats, abortion was observed at oral doses of bimatoprost that achieved at least 33 or 97 times, respectively, the maximum intended human exposure based on blood AUC levels.

At doses at least 41 times the maximum intended human exposure based on blood AUC levels, the gestation length was reduced in the dams, the incidence of dead fetuses, late resorptions, peri- and postnatal pup mortality was increased, and pup body weights were reduced.

There are no adequate and well-controlled studies of LUMIGAN® 0.01% and 0.03% (bimatoprost ophthalmic solution) administration in pregnant women. Because animal reproductive studies are not always predictive of human response, LUMIGAN® should be administered during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers: It is not known whether LUMIGAN® 0.01% and 0.03% is excreted in human milk, although in animal studies, bimatoprost has been shown to be excreted in breast milk. Because many drugs are excreted in human milk, caution should be exercised when LUMIGAN® is administered to a nursing woman.

Pediatric Use: Use in pediatric patients below the age of 16 years is not recommended because of potential safety concerns related to increased pigmentation following long-term chronic use.

Geriatric Use: No overall clinical differences in safety or effectiveness have been observed between elderly and other adult patients.

Hepatic Impairment: In patients with a history of liver disease or abnormal ALT, AST, and/or bilirubin at baseline, bimatoprost 0.03% had no adverse effect on liver function over 48 months.

OVERDOSAGE

No information is available on overdosage in humans. If overdose with LUMIGAN® 0.01% and 0.03% (bimatoprost ophthalmic solution) occurs, treatment should be symptomatic.

In oral (by gavage) mouse and rat studies, doses up to 100 mg/kg/day did not produce any toxicity. This dose expressed as mg/m² is at least 70 times higher than the accidental dose of one bottle of LUMIGAN® 0.03% for a 10-kg child.

NONCLINICAL TOXICOLOGY

Carcinogenesis, Mutagenesis, Impairment of Fertility: Bimatoprost was not carcinogenic in either mice or rats when administered by oral gavage at doses of up to 2 mg/kg/day and 1 mg/kg/day respectively (at least 192 and 291 times the recommended human exposure based on blood AUC levels respectively) for 104 weeks.

Bimatoprost was not mutagenic or clastogenic in the Ames test, in the mouse lymphoma test, or in the *in vivo* mouse micronucleus tests.

Bimatoprost did not impair fertility in male or female rats up to doses of 0.6 mg/kg/day (at least 103 times the recommended human exposure based on blood AUC levels).

PATIENT COUNSELING INFORMATION

Potential for Pigmentation: Patients should be advised about the potential for increased brown pigmentation of the iris, which may be permanent. Patients should also be informed about the possibility of eyelid skin darkening, which may be reversible after discontinuation of LUMIGAN® 0.01% and 0.03% (bimatoprost ophthalmic solution).

Potential for Eyelash Changes: Patients should also be informed of the possibility of eyelash and vellus hair changes in the treated eye during treatment with LUMIGAN® 0.01% and 0.03%. These changes may result in a disparity between eyes in length, thickness, pigmentation, number of eyelashes or vellus hairs, and/or direction of eyelash growth. Eyelash changes are usually reversible upon discontinuation of treatment.

Handling the Container: Patients should be instructed to avoid allowing the tip of the dispensing container to contact the eye, surrounding structures, fingers, or any other surface in order to avoid contamination of the solution by common bacteria known to cause ocular infections. Serious damage to the eye and subsequent loss of vision may result from using contaminated solutions.

When to Seek Physician Advice: Patients should also be advised that if they develop an intercurrent ocular condition (e.g., trauma or infection), have ocular surgery, or develop any ocular reactions, particularly conjunctivitis and eyelid reactions, they should immediately seek their physician's advice concerning the continued use of LUMIGAN® 0.01% and 0.03%.

Use with Contact Lenses: Patients should be advised that LUMIGAN® 0.01% and 0.03% contains benzalkonium chloride, which may be absorbed by soft contact lenses. Contact lenses should be removed prior to instillation of LUMIGAN® and may be reinserted 15 minutes following its administration.

Use with Other Ophthalmic Drugs: If more than one topical ophthalmic drug is being used, the drugs should be administered at least five (5) minutes between applications.

Outliers among us?



J. Mark Petrash, PhD,
FARVO

In his best-selling book *Outliers*, author Malcolm Gladwell explored possible explanations about why some individuals have experienced a degree of success that places them outside the

normal range. They are the outliers.

He takes a close look at Bill Gates, co-founder of Microsoft and one of the most influential — and wealthy — individuals in the world. What circumstances may have contributed to his astonishing success? Was it his considerable intelligence? Hard work? Luck?

Gladwell proposes that the circumstances that led to the extraordinary success of the early software pioneers, what made them outliers, was really a product of the right people with right skill set being in the right place at the right time. There was a confluence of creative and hardworking people who were interested in using a new technology to focus on solutions to unmet needs.

Just as importantly, they had mastered a unique set of skills. In Gates' case, he had access to a mainframe computer starting in the 8th grade — in 1968! Gladwell speculates that there could only have been a few teenagers in the world with such access at that time.

Their willingness to devote the personal effort to achieve mastery of their craft, often totaling at least 10,000 hours of practice and focused work, was an important part of the equation for their success. Companies such as Microsoft, Apple, and Sun Microsystems can trace their origins to the efforts and vision of a few individuals who had mastered unique skills and seized the special opportunities that existed in the early days of the computing revolution.

Gladwell's compelling stories about Gates and other successful people led me to wonder what special opportunities are out there for ARVO members to emerge as unusually successful scientists and eye care professionals. Let's examine the elements

that Gladwell proposes must come together for individuals or groups to achieve outlier status.

Unmet needs: Never has the need to prevent blindness been greater than today. The number of cases of preventable blindness is climbing every year. We have no means to prevent cataracts, the world's most common cause of blindness. Diabetes, a leading cause of blindness, is on the increase worldwide. We have no way to prevent glaucoma, a sight-robbing disease that disproportionately affects those of African heritage.

Bright, hardworking individuals: ARVO is richly endowed with a membership of dedicated and highly educated scientists and healthcare professionals. More than 98% of our members are working toward or have earned the highest terminal degree in their profession. ARVO mem-

"We aim to create that fertile network of people who share the commitment to prevent blindness and who are ready to seize the special opportunities that come from bringing bright hardworking people together to solve difficult problems."

bers can be considered masters of their craft. The 10,000-hour minimum of practice proposed by Gladwell to be necessary to achieve mastery of a skill will be far exceeded by most of our members during the course of their clinical and scientific training.

Dawn of new technologies: We are at the threshold of a new age of technology in the biomedical sciences. Capabilities that leverage our grasp of the human genome are rapidly leading to new insights into the pathogenesis of vision-

threatening disease. Genome technologies are giving us new insights into interactions between genes and the environment. We have witnessed proof of the concept that therapeutic genes can be harnessed to restore vision to the blind. The fields of stem cell biology and regenerative medicine hold promise as new therapies to overcome degenerative diseases of the eye. New capabilities in nanotechnology-based therapeutics are in the earliest stages of development.

Convergence of people and circumstances — being in the right place at the right time and making the connections: As an organization, ARVO is committed to bringing people together from all over the world. Through activities and venues for the Annual Meeting, we seek to create those magical moments that enable collaborations to take root; we want to create opportunities for trainees to meet established investigators in their field; we want to create a forum for members to hear about the latest developments in all areas of ophthalmology and vision research. We aim to create that fertile network of people who share the commitment to prevent blindness and who are ready to seize the special opportunities that come from bringing bright hardworking people together to solve difficult problems.

The theme of this year's Annual Meeting is Visionary Genomics. It will be exciting to learn from speakers who have already recognized the special opportunities for harnessing genome technology to solve unmet problems in vision and eye care.

Who knows — the next great outlier may be among us. ■

Sincerely,

J. Mark Petrash

Get ready for the 2011 ARVO elections!

On March 14, 2011, ARVO members (i.e. Regular, Sustaining and Life) whose dues are paid by February 1, 2011 will receive their 2011 ARVO election online ballot and voting instructions. And this year, the ballot is big.

2011 ARVO Election Ballot

ARVO Elected Officers

- ARVO Executive Vice President
- IOVS Editor-in-Chief
- JOV Editor-in-Chief


2011 Trustee Candidates

- CO
- EY
- LE

2011 Trustee Nominations

- BI
- CL
- VN

Annual Meeting Program Committee Candidates

- Section Representative
- Cross-sectional Groups 

ARVO elected officers

Every five years, ARVO elected officer positions are up for election. This includes ARVO executive vice president; editor-in-chief, *Investigative Ophthalmology & Visual Science (IOVS)*; and editor-in-chief, *Journal of Vision (JOV)*. ARVO elected officers serve a term of five years. The ARVO executive vice president's term will begin with the adjournment of the 2012 Annual Meeting and end with the adjournment of the 2017 Annual Meeting; and the IOVS editor-in-chief and JOV editor-in-chief will begin their terms on January 1, 2013 and end December 31, 2017. The candidates are:

Executive vice president



Craig E. Crosson, PhD, FARVO
Pawek-Vallotton Professor, Department of Ophthalmology, Medical University of South Carolina, Charleston, S.C.



Peter J. McDonnell, MD
Director and William Holland Wilmer Professor of Ophthalmology, Wilmer Eye Institute Johns Hopkins University

Editor-in-chief, *Investigative Ophthalmology & Visual Science (IOVS)*



David C. Beebe, PhD, FARVO
Janet and Bernard Becker Professor of Ophthalmology and Visual Sciences, Professor of Cell Biology and Physiology, Washington University School of Medicine



Marco A. Zarbin, MD, PhD, FARVO
Chair, Institute of Ophthalmology and Visual Science, and Professor, Ophthalmology and Neuroscience, New Jersey Medical School; Chief, Ophthalmology, University Hospital, Newark, N.J.

Editor-in-chief, *Journal of Vision (JOV)*



Mark Georgeson, MA, DPhil
Professor of Visual Science at Aston University, Birmingham, UK



Dennis M. Levi, OD
Professor of Optometry and Vision Science, and Dean of the School of Optometry at UC Berkeley

2011 Trustee candidates Cornea Section



Dimitri T. Azar, MD, FARVO
Chair, Department of Ophthalmology and Visual Sciences University of Illinois at Chicago



James V. Jester, PhD, FARVO
Jack H. Skirball Endowed Research Chair and Professor of Ophthalmology and Biomedical Engineering at the University of California, Irvine

Eye Movements/Strabismus/Amblyopia/Neuro-Ophthalmology Section



Leonard A. Levin, MD, PhD, FARVO
Canada Research Chair in Ophthalmology and Visual Sciences at the University of Montreal; Professor of Ophthalmology and Visual Sciences at the University of Wisconsin




Linda K. McLoon, PhD, FARVO
Professor in the Departments of Ophthalmology and Neuroscience at the University of Minnesota



Lens Section
John I. Clark, PhD, FARVO
Chair of Biological Structure at the University of Washington

[Running unopposed]

 To view the biographies of the executive vice president, editors-in-chief or Trustee candidates, see www.arvo.org/candidates2011

NEW: 2011 Trustee nominations

The Biochemistry/Molecular Biology (BI), Clinical/Epidemiologic Research (CL) and Visual Neurophysiology (VN) sections will each elect two candidates to run in the 2012 Board of Trustees elections. The names of the two members who receive the most votes from the 2011 election in each section will be placed on the 2012 ARVO Election ballot.

Online nominations are being accepted through February 14. Regular, Sustaining or Life members in one of these three sections may submit a nomination or a self-nomination. In order to qualify, dues must be paid by February 1, 2011. Members outside the US and women are strongly encouraged to apply.

Annual Meeting Program Committee Section Representatives

All sections will vote for their AMPC section representative(s). Online nominations are being accepted through February 14. All voting members (i.e., Regular, Sustaining and Life) are encouraged to nominate colleagues in their section or self-nominate. Dues must be paid by February 1, 2011. Members outside the US and women are strongly encouraged to apply.

New: Cross-sectional Groups


Last October 22, the ARVO Board of Trustees approved adding the ARVO Cross-sectional Group representatives to the Annual Meeting Program Committee (AMPC) beginning in 2011. The goal is to encourage more participation in the groups, as well as allow them to work more closely with the sections and formalize their programming at the Annual Meeting.

Each Cross-sectional Group will have three representatives on the AMPC (i.e. a chair, chair-elect and a member), mirroring the composition of the 13 sections on the committee. Members

serve a three-year term with their last year of service as chair. The process of adding all three members will be done over a two-year period. The current organizing chairs will serve until 2013 when the transition is expected to be complete. See box below left for the transition timeline.

Voting members (i.e., Regular, Sustaining and Life) who also belong to one or more ARVO Cross-sectional Group are eligible to vote for the Cross-sectional Group representative(s) in the 2011 ARVO Election. Online nominations are being accepted through February 14. Cross-sectional group members are encouraged to nominate colleagues in their group or self-nominate. Note that members cannot serve on the AMPC as their Scientific Section representative and on a Cross-sectional Group, simultaneously. Dues must be paid by February 1, 2011.

Voting closes on Sunday, May 1 at 5:30pm. Don't forget to attend the General Business Meeting at the ARVO Annual Meeting to find out the election results for the ARVO officers. Also, don't forget to attend the Section Business Meetings to learn who the new AMPC representatives in your section will be and the Cross-sectional Group Platforms to learn who the group representatives will be. ■

 See www.arvo.org/elections for nomination information.

Cross-sectional Group transition to Annual Meeting Program Committee (AMPC) timeline

The current organizing chairs will serve until 2013.

Year 1 (May 2011–May 2012)

- Current Cross-sectional Group chairs remain on the AMPC
- Chair-elect is elected for a three-year term (i.e., May 2011–May 2014) and will serve as chair May 2013–2014

Year 2 (May 2012–May 2013)

- Current chairs continue to serve on AMPC
- Chair-elect
- Third person is elected for a three-year term (May 2012–May 2015) and will serve as chair May 2014–2015

Fight for Sight celebrates 65 years!



Join Us for Our 65th Anniversary Celebration Luncheon

Monday, May 2, 12:00–1:30 pm
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Monday, May 2, 7:30–9:00 pm
Rooms 301–302
(across from Floridian BCD)

HONORING
2011 Mildred Weisenfeld Award winner
Dr. Paulus de Jong, MD, PhD
and Cogan Award winner
Andrew J. Fischer, PhD



Looking for more involvement?

Getting involved in ARVO is a great way to gain new skills, enhance your resume or CV, exchange ideas with peers, make new friends or give back to the eye and vision research community. Did you know that in addition to presenting your research, publishing or peer-reviewing an article in *IOVS* or *JOV*, you can get involved by volunteering?

As a volunteer, you can help ARVO create value for members and achieve the association's strategic goals and objectives. There are a number of ways for you to contribute your expertise and passion to ARVO and make it a meaningful experience. And you earn one point per year towards an ARVO Fellows designation.

Board of Trustees

ARVO is governed by the Board of Trustees which sets the strategic direction and manages the business and affairs for the association. Trustees serve a five-year term and participate in three meetings per year: one in the fall and two in the spring in conjunction with the ARVO Annual Meeting.

Each year, an announcement is distributed to voting members about the sections that are seeking nominations. Regular, Sustaining and Life members in those sections whose dues are paid by February 1 of that year are eligible to submit an online nomination or self-nomination form.

Committees

Annual Meeting Program Committee (AMPC)

Scientific Sections: The AMPC determines the scientific content of the ARVO Annual Meeting. One or two members from each section are annually elected to the AMPC. AMPC members serve a three-year term (VI members serve a four-year term) and chair their section in their final year of service.

ARVO announces a call for nominations for AMPC annually. Regular, Sustaining and Life members whose dues are paid by February

1 of that year are eligible to submit an online nomination or self-nomination.

Cross-sectional Groups (New!)

The AMPC is now adding Cross-sectional Groups. See page 7.

Call for nominations are made annually. Regular, Sustaining and Life members who are also Cross-sectional Group members are eligible to submit an online nomination or self-nomination. Dues must be paid by February 1 of that year.

Other ARVO committees

There are also other committees at ARVO that monitor and respond to advocacy issues, diversity issues and publications issues, and develop educational content for ARVO meetings in addition to the ARVO Annual Meeting. Expertise and passion from all members — including students — are valued on these committees. Committee members typically serve a three-year term. A complete list of committees, and their descriptions and recent activities can be found at www.arvo.org/committees. Committee appointments are made during the call for volunteers. ARVO members whose dues are paid by February 1 of that year may apply online during that time.

Working groups

ARVO also seeks volunteers year-round to assist with projects on a short-term basis. Term limits on working groups can range from three to six months or longer. ARVO is currently seeking volunteers to assist with selecting the 2011 Annual Meeting hot topics for press releases, as well as help choosing city locations for the ARVO Annual Meeting starting in 2017.

Watch your e-mail and the ARVO Website to learn more about how you can volunteer for one of these opportunities. ■

Why I work with the Members-in-Training (MIT) Committee



Thomas A. Fuchsluger, MD, PhD, FEBO, MSc

The MIT committee is a great way for ARVO members-in-training to actively contribute to each Annual Meeting rather than just to passively attend. It is an open forum for discussing how to improve the ARVO

experience for members-in-training and to organize educational programs that address the unique needs of MITs to increase the joy of coming to ARVO. While volunteering with ARVO means taking responsibility and meeting deadlines, committee members have the support of a network of formidable colleagues and friends within the ARVO family that take delight in advancing this international platform for basic science and clinical vision research.

— Thomas A. Fuchsluger, MD, PhD, FEBO, MSc
Center of Ophthalmology/
Institute of Anatomy
Essen University Hospital,
Germany



ARVO International Chapter Affiliates

ARVO-NED

Chapter Affiliate since April 25, 2008
Nijmegen, the Netherlands

Asociación de Investigación en Visión y Oftalmología (AIVO)

Chapter Affiliate since May 5, 2007
Buenos Aires, Argentina

Austrian Association for Research in Vision and Ophthalmology (AARVO)

Chapter Affiliate since May 2, 2009
Vienna, Austria

Brazilian Research Association of Vision and Ophthalmology (BRAVO)

Chapter Affiliate since October 21, 2006
São Paulo, Brazil

Chinese Congress of Research in Vision and Ophthalmology (CCRVO)

Chapter affiliate since May 1, 2010
Beijing, P.R. China

Colegio Nacional de Investigación en Ciencias Visuales (MARVO)

Chapter Affiliate since May 1, 2010
Mexico D.F., Mexico

Hungarian Association for Research in Vision and Ophthalmology (HARVO)

Chapter Affiliate since November 14, 2007
Budapest, Hungary
www.harvo.org

Israel Society for Vision and Eye Research (ISVER)

Chapter Affiliate since April 29, 2006
Jerusalem, Israel
www.isver.org.il

South-East European Association for Research in Vision and Ophthalmology (SEE-ARVO)

Chapter Affiliate since October 29, 2009
Sofia, Bulgaria



See www.arvo.org/affiliates.

Argentina Chapter Affiliate celebrated 7th annual meeting in Cordoba

Asociación de Investigación en Visión y Oftalmología (AIVO) held its largest ever annual meeting on November 19–20, 2010 in Cordoba, Argentina. Attendance at the AIVO meeting has continuously increased. At this year's meeting, there were 80 attendees from different universities and research centers in Argentina, Uruguay, Paraguay and Venezuela. The two keynote lectures featured ARVO members Dora Fix-Ventura, PhD, from the University of São Paulo, and Peter Campochiaro, MD, FARVO, from Johns Hopkins University. In addition, roughly 200 young ophthalmologists also attended joint sessions that were organized with Residents of South Core (EROC) and the Young Ophthalmologists of Cordoba (AJOC). ■



Attendees at the AIVO meeting in Cordoba, Argentina.



Keynote Speaker Peter Campochiaro, MD, FARVO, of Johns Hopkins University.



Keynote Speaker Dora Fix-Ventura, PhD, of the University of São Paulo.

האגודה הישראלית לחקר העין והראיה
Israel Society for Vision & Eye Research



31st Annual meeting of the Israel Society for Vision and Eye Research

March 24-25, 2011, Kibbutz Tzuba (near Jerusalem, Israel)

Important Dates:

Nov 21, 2010: Online abstract submission opens

Dec 31, 2010: Online abstract submission closes

March 4, 2011: Early bird registration deadline

Fees:

Scientist, Physician: \$75
Student, Resident, Fellow: \$50
After March 4 2011 add \$25
Registration includes: Abstract book, lunch (March 24) and coffee breaks throughout the meeting

Abstract requirements:

Submit in English
Basic or Clinical research
No case reports
350 words
Choose poster/lecture

Online abstract submission :
www.isver.org.il

Registration: danat2@bezeqint.net Phone: +972-54-3061403

Israel meeting showcases genetics and more

Israel Society for Vision and Eye Research: 2010 Annual Meeting

Some 200 investigators gathered for the March 2010 Annual Meeting of the Israel Society for Vision and Eye Research (ISVER; an ARVO International Chapter Affiliate). The meeting took place in Airport City (a business complex near Ben Gurion International Airport), and was highly successful.

The scientific program included 53 oral presentations and 42 posters, all by local investigators. Both basic and clinical research studies were included, many of them innovative. Areas of particular interest and originality included molecular genetic studies in Israeli patients with hereditary ocular disorders, which show differing genetic causes of disease as compared with that reported in the literature, as well as studies focusing on future application of cell therapy, identification of markers associated with ocular tumors, and more. The full list of abstracts can be accessed at the ISVER site, www.ISVER.org.il.

Many young investigators, including ophthalmology residents as well as MSc and PhD

students, took an active part, and four were selected to receive awards of excellence for their presentations and work. First prize was a travel grant to the next ARVO meeting.

The invited plenary lecturer was Professor Martin Friedlander, MD, PhD, from the Scripps Research Institute at La Jolla, Calif., a renowned clinician-scientist in the fields of retinal angiogenesis and in possible application of stem and progenitor cells in the context of retinal vascular disease. Friedlander gave two talks, one on each day of the meeting, which stimulated much interest and discussion.

ISVER leaders hope to further expand the meeting and attract researchers from both Israel and abroad. ■

Areas of particular interest and originality included molecular genetic studies in Israeli patients with hereditary ocular disorders ... as well as studies focusing on future application of cell therapy.

EVER 2011
Crete Oct 5-8
www.ever.be

Science for Sight



Abstract submission deadline **June 13, 2011**

EVER is a non-profit organization. The aims of the association are to encourage research and the dissemination of knowledge concerning the eye and vision by means of meetings, publications and exchange of information.

EVER is the largest European scientific organization which covers all subspecialties of ophthalmology and visual sciences. It provides an umbrella for other ophthalmological societies to meet during its annual congress.

EVER 2011 will be held in the Creta Maris, 25 km east of Heraklion, the capital of the Greek island **Crete**.

Visit www.ever-f.eu for more information about



Join EVER

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- Travel grants
- Quarterly E-Newsletter

Khaw, continued from page 1

Khaw: We were delighted that government funding for scientific research had been preserved, given that many other departments had suffered cuts of as much as 30%.

We at Moorfields and UCL Institute of Ophthalmology — as well as many others — have been proactive in showing the worth of medical research and in justifying the preservation of the budget. We work with the media and government whenever we have good scientific stories to tell. Ophthalmology research and the restoration of sight make a great example for this, because it's such a powerful concept; everyone can understand it. For example, ophthalmology is one of the main features of the UK National Institute for Health Research (NIHR) video explaining how research helps people (Google search: "NIHR video").

Many other UK research organizations have been proactive in explaining the value of research, including the return on investment. The UK Academy of Medical Sciences produced a document that has been particularly important: it shows the massive economic benefits of biomedical research.

And at Moorfields and the UCL Institute of Ophthalmology, we had a unique opportunity, as we were selected as one of the first site visits for Earl Howe in May 2010, soon after he became the Parliamentary undersecretary of state for health including research under the new coalition government.

ARVONews: How did Moorfields prepare for the minister's visit?

Khaw: We were pleased to be the first NIHR research center to be visited by Howe — even though we had very short notice! For the visit, we chose to focus on what we call the "four Ps": Patients, progress, partnerships and prosperity.

We brought in several patients whose lives had been changed by new treatments brought about through research at Moorfields and the UCL Institute of Ophthalmology. We reviewed the great progress we've made in new areas,

including ocular gene therapy and stem cell therapy. It was also important to showcase the many partnerships we've made with industry, and the fact that by bringing investment in research back to Britain, there are implications for prosperity for UK universities, the National Health Service and industry.

The minister clearly understood the impact of research and how much it can help improve the country's future. But I think Earl Howe was also particularly moved by the personal stories he heard and the patients he met.

ARVONews: How important are people's stories?

Khaw: People's stories are critical. The endpoint of research is to improve the condition of mankind, and it's important to tell these stories.

Many years ago, we had a TV series made in our hospital, and I learned so much from the process and seeing the footage of my patients. Video is a powerful way of showing how new treatments develop through research, and it's the best way to show how research can really change

someone's life and the lives of those around them — the "ripple effect." This human narrative is the most powerful story of all.

Based on that experience of filming, we made a short film of one of my young patients, before and after she had her sight restored after several operations. It was her moving story that helped us raise all the funds (£17 million; \$US27 million) for our new children's eye hospital and research center. I just showed the two-minute video every time I met donors and talked about how we needed the new hospital to carry out more research and change lives. It's very fitting that this young girl eventually laid the foundation stone for the new building and was introduced to the Queen when she opened the building.

ARVONews: What advice do you have for scientists and clinicians who wish to act as advocates for research?

Khaw: Tell your stories. Every day we meet peo-



Peng Tee Khaw, MD, PhD, FARVO
ARVO Board of Trustees,
Glaucoma Section
Director, NIHR Biomedical
Research Centre
for Ophthalmology,
Moorfields Eye Hospital
and University College
of London Institute of
Ophthalmology



Health minister Earl Howe meeting Moorfields glaucoma patient Julia Margetts.

ple, and they need to know how important research is, and how it changes lives. Tell people what you're working on. Go out to talk to school groups, communicate within universities and speak at public forums. If you have contact with policy makers, never miss an opportunity to tell stories — about what you're working on and about how it may benefit people down the line.

Keep in mind that occasionally, some patients are in a position to be extraordinarily generous. A few years ago, we had as a patient the publisher Richard Desmond, who was successfully treated using a new surgical technique we had developed through research. He asked how he could help. We talked to him about our research and hopes and difficulties raising the final funding for our children's hospital. He was inspired to learn that he could help thousands of children, and he wrote us a cheque for £2.5 million (US\$3.75 million) for our children's center, which is now named after him.

Whenever I'm discussing diseases with patients, I always stress how research improves treatment. Even if a treatment is not immediately available, learning about research can give patients great hope for the future. Recently, during a patient group focus day, Moorfields patients were asked where they thought resources should be devoted. The most important thing to them was further research into understanding their condition and why they had it, rather than only treatment.

ARVONews: You have participated in ARVO Advocacy Days, visiting US members of Congress in Washington, DC. As a non-US resident, what value did this exercise have for you?

Khaw: The Advocacy Days have been fantastically useful. Advocacy in the US is much more developed than in other parts of the world. I have learned a great deal by observing such a proactive approach. I think the focus of the US Congressmen on how research dollars are translating into benefits for people was important to see, and it helped us greatly in our efforts to preserve the research budget in the UK. We have visited the Houses of Parliament on several occasions with different organizations to show the impact and importance of research. ■

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 2011 Cora Verhagen Prize will be awarded at the 2012 ARVO Annual

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

1. 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 2011 ARVO Annual Meeting poster or paper presentation dealing with a subject in the field of ocular immunology. ■

2011 Cora Verhagen Prize

I would like to compete for the 2011 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 Cora Verhagen Prize.

Mentor signature: _____

Deadline for applications is April 6, 2011. Do not send application forms to the ARVO office. Please send all application forms to:

Dr. Andrew Taylor
Department of Ophthalmology
Boston University School of Medicine
72 East Concord Street, Rm L915B
Boston, MA 02118 US
Fax: +1.617.638.5337 | E-mail: awtaylor@bu.edu

2011 Asia-ARVO/NEI US Travel Grants

Congratulations to the recipients of the Asia-ARVO/NEI US Travel Grants. The recipients will present their research at Asia-ARVO, January 20-22, 2011, in Singapore.

Chung-Jung Chiu, PhD

Tufts University, Human Nutrition Research Center

Md Nawajes Mandal, PhD

University of Oklahoma Health Science Center

Binxing Li

University of Utah School of Medicine/Moran Eye Center

Jonathan Lin, MD, PhD

University of California, San Diego School of Medicine

Yongqing Liu, PhD

University of Louisville, Ophthalmology and Visual Sciences

Gangaraju Rajashekhar, PhD

Indiana Center for Vascular Biology and Medicine

Sajeesh Kumar, PhD

University of Pittsburgh, Health Information Management

Sandeep Samudre, PhD, MPH

Eastern Virginia Medical School, Lee Center for Ocular Pharmacology

These grants are made possible by a grant from the National Eye Institute. Each grantee will receive up to \$3,500 in reimbursement for their expenses related to attending Asia-ARVO. ■

Ambati, Sosne to receive Camras Translational Research Awards

The 2011 AFER/Pfizer Ophthalmics/Carl Camras Translational Research Awards recipients will each receive \$10,000 and will be honored Sunday, May 1, at the ARVO/Alcon Keynote Session at the Annual Meeting in Fort Lauderdale, Fla.



Jayakrishna Ambati, MD

Jayakrishna Ambati, MD, University of Kentucky

For his profound insights into the molecular bases of physiological avascularity and pathological neovascularization in the eye; and defining complement activation as an angiogenic switch in human age-related macular degeneration (AMD), and discovering the first specific molecular signature of neovascular human AMD.



Gabriel Sosne, MD

Gabriel Sosne, MD, Wayne State University School of Medicine

For his revolutionary discovery of thymosin beta 4's corneal wound healing, anti-inflammatory and anti-apoptotic properties to treat the human eye.

These awards recognize early career investigators who are no more than 45 at the time of nomination. The awards are supported by Pfizer Ophthalmics through a generous contribution to the ARVO Foundation for Eye Research. The deadline for 2012 nominations is March 1, 2011.



See www.arvo.org/awards/camras. ■

ARVO Fellows Class of 2011

As requested by the Board of Trustees, the Fellows points were re-calculated including seven additional years for abstracts, while limiting abstract points to one per year for first or co-authors. Additional years back to 1966 are now included for Annual Meeting Program Committee service. Restrictions on the maximum number of points per category have also been implemented. As a result of these new calculations, ARVO is pleased to recognize the following 41 members (14 Gold and 27 Silver) who have earned the required points for their contributions to ARVO and have been approved by the Board of Trustees for the honor of Fellow of ARVO (FARVO). The 2011 Class of Fellows will be recognized at the 2011 ARVO Annual Meeting, May 1-5, 2011 in Fort Lauderdale, Fla.



See www.arvo.org/awards/fellows or send inquiries to awards@arvo.org. ■

2011 Gold Fellows

Bedell, Harold E
Birch, Eileen E
Burgoyne, Claude F
Chan, Chi-Chao
Funderburgh, James L
McAvoy, John W
McLoon, Linda K
Petrash, J Mark
Reinecke, Robert D
Ripps, Harris
Stepp, Mary Ann
Varma, Shambhu D
Wax, Martin B
Wolf, Sebastian

2011 Silver Fellows

Abdel-Latif, Ata A
Abelson, Mark B
Ahumada, Albert J
Baudouin, Christopher
Bill, Anders
Borchman, Douglas
Brandt, Curtis R
Brecha, Nicholas
Brigell, Mitchell G
Dawson, Chandler R
FitzGerald, Paul G
Geisler, Wilson S
Geroski, Dayle H
Hausman, Robert E

Hunter, David G
Ireland, Mark E
Kalsow, Carolyn M
Nelson, J Daniel
Powers, Maureen K
Saari, John C
Schwartz, Steven D
Sears, Marvin L
Singh, Arun D
Stefansson, Einar
Thorn, Frank
Tombran-Tink, Joyce
Whikehart, David R

From the Chairman



Gary W. Abrams, MD

Dear Colleagues,
The recipients of your generosity and the Board of Governors of the ARVO Foundation for Eye Research (AFER) wish to thank you for your support in 2010! It was an exciting year for AFER with the presentation of an increased number of awards and grants.

AFER is on track to fulfill its vision of becoming one of the most effective and best-known eye foundations worldwide. New events and initiatives are in the planning phases for 2011. I invite you to visit the AFER Website at www.arvofoundation.org for the latest information. We will con-

tinue our mission of supporting eye research in the areas of highest unmet needs.

Philanthropic support is extremely important to the success of AFER's programs. Because of people like you, we can continue to advance research to prevent and maybe even cure blindness. Together, we can make an even greater impact on vision research in the future.

Wishing you all the best in the New Year!

Gary W. Abrams, MD, FARVO
Chairman, AFER Board of
Governors

Meet the recipients of AFER's 2010 Collaborative Research Fellowships

Congratulations to the recipients of the 2010 ARVO/Pfizer Collaborative Research Fellowships. They will each receive a \$10,000 fellowship to support their collaboration and will be honored on Sunday, May 1, at the ARVO/Alcon Keynote Session at the Annual Meeting in Fort Lauderdale, Fla.



Karina I. Mazzitello, MD

Recipient: Karina I. Mazzitello, MD
National Scientific and Technical Research Council,
Argentina

US Collaborator: Fereydoon Family, PhD, Emory
University

Project: Retinal regeneration by iPS-derived
photoreceptors



Gustavo B. Melo, MD

Recipient: Gustavo B. Melo, MD
Hospital de Olhos de Sergipe/Universidade Federal de
São Paul, Brazil

US Collaborator: Michael J. Young, PhD, Schepens Eye
Research Institute, Harvard

Project: Simulation of the growth and formation of drusen
and RPE tear in age-related macular degeneration.

These fellowships are supported by Pfizer Ophthalmics through a generous donation to the ARVO Foundation for Eye Research. This program supports researchers in developing countries to collaborate with researchers in the US. Nominations for the 2011 Collaborative Fellowships may be submitted from March 1 through September 30, 2011. ■



See www.arvo.org/awards/fellowships.

Why do you give to the ARVO Foundation for Eye Research?

For me, ARVO's reason for being is the linking of basic vision researchers with clinicians. I am a basic scientist who works in a clinical ophthalmological setting, and ARVO represents my interests perfectly. The Foundation's first purpose is to foster those interactions so it is a natural conclusion that I should support it. ■

— *Martin J. Steinbach, PhD, FARVO*
2009 Kupfer Award Recipient
Distinguished Research Professor
York University Professor and
Director of Ophthalmology Research
University of Toronto

AFER Board of Governors 2010–2011

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ARVO/AFER Executive Director

Maureen Dimont
AFER Director of Development



Thank you 2011 Developing Country Eye Researcher Fellowships supporters

- Alcon Foundation
- Alcon South Africa
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- Champalimaud Foundation
- The Glaucoma Foundation
- Merck & Company, Inc.
- Ophthotech Corporation
- Dr. Joyce Tombran-Tink
- Tyson Research Initiative/
PAOF/RRF
- Women in Eye and Vision
Research (WEAVR) ■

Why do you give to the ARVO Foundation for Eye Research?

Professor John Dowling at Harvard University, at whose lab I had the pleasure to be a post-doc in 1976–1977, inspired me to support the ARVO Foundation. Having my scientific interests within the field of retina, clinically as a vitreoretinal surgeon and experimentally in the electretinal function of the retina, I found it particularly significant to encourage young ophthalmologists/scientists to pursue an academic career — especially women — and to choose retinal research. ■

— Lillemor Wachtmeister, MD, PhD
Professor emerita of
Ophthalmology,
Department of Clinical Sciences/
Ophthalmology Umeå University,
Sweden

Wanted: Meeting mentors for visiting researchers

AFER is looking for members to serve as meeting mentors for visiting researchers from developing countries who are attending the ARVO Annual Meeting as part of the Developing Country Eye Researcher Fellowships program (DCERF; formerly Host-a-Researcher).

Do you fit the bill?

As a mentor, you have the ability to influence the visiting researcher's experience before, during and after the meeting. Mentors:

- communicate with the visiting researcher prior to the Annual Meeting, acquainting them with the meeting and how to plan their time
- help the researcher navigate the meeting once in Fort Lauderdale
- introduce them to other ARVO members with similar research interests
- help create connections that will go beyond the meeting.

Meeting mentors are needed for 2011 researchers coming from South Africa, Ethiopia, Tunisia, Russia, Poland, Hungary and Latin America.

If you are interested in mentoring a visiting researcher or have further questions regarding the AFER/ARVO Developing Country Eye Researcher Fellowships, please contact Maureen Dimont at mdimont@arvofoundation.org. ■




The ARVO Foundation for Eye Research and the Dowling Society invite you to a ...

Gala Awards Ceremony and Dinner

Saturday, April 30, 2011, 7pm
Harbor Beach Marriott | Fort Lauderdale, Fla.

The gala, which will benefit AFER, will honor outgoing Board of Governors Chairman Gary W. Abrams, MD, FARVO, for his dedicated service to the Foundation and 2011 ARVO awardees.

- The theme for the evening will be "Foods for healthy eyes"
- Tickets go on sale in January
- Gala Chair: Nicolas G. Bazan, MD, PhD, FARVO

 Contact Maureen Dimont at mdimont@arvofoundation.org.

Advancing women's careers: Jager to speak at 2011 WEAVR luncheon

Martine Jager, MD, PhD, FARVO, was ARVO's first president based outside the US (2007–2008) and has been actively involved in the development of ARVO International Chapter Affiliates, including those in Hungary, Austria, China and the Netherlands. She is head of the Laboratory of the Department of Ophthalmology at Leiden University Medical Center, Leiden, the Netherlands. She received her medical and PhD degrees from Leiden University and graduated as an immunologist.

Following her residency in ophthalmology at the University of Amsterdam, she spent time in the laboratory of professor Wayne Streilein in Miami, Fla., and completed a fellowship in corneal diseases at the Bascom Palmer Eye Institute in Miami. After receiving a fellowship from the Royal Netherlands Academy of Arts and Sciences, she established her own laboratory in Leiden, which focuses on ocular immunology and oncology. Clinically, she works as a cornea specialist. She has supervised over 80 medical students and 15 PhD students, and helps many students gain international experience.

In 1999, she was visiting professor at the Schepens Eye Research Institute, Harvard Medical School, where she currently holds a position as adjunct scientist. She has published over 150 papers and is on the editorial boards of five ophthalmological journals, including *Investigative Ophthalmology & Visual Science (IOVS)*. She is a member of the Board of the International Society for Ocular Oncology, the European Society for Vision and Eye Research, and the Advisory Board of the International Council of Ophthalmology.

In 2010, she gave the Kreissig lecture, received an Achievement Award from the American Academy of Ophthalmology and was elected to the Academia Ophthalmologica Internationalis.

ARVOnews: Why did you decide to go into ophthalmology?

Jager: I had been accepted for a residency in internal medicine and was working on my PhD in immunogenetics. While at the Department of Internal Medicine, I had to do funduscopies on patients with leukemia — and realized that looking at eyes was fantastic.

I had previously stayed away from ophthalmology as that was too obvious a choice, with my father and two cousins being eye doctors.

ARVOnews: What have been some of the highlights of your work?

Jager: Seeing youngsters bloom from not being able to write an abstract to writing a great paper for *IOVS* or *Journal of Immunology* by themselves. I myself had the luck to have some very good mentors, and I try to help others similarly. I am happy when things work out properly and a student has a good experience with research.

When I did my PhD on monocytes, the immunological world was focused on T cells. It is marvelous that so many years later, monocytes and macrophages are hot in macular degeneration and ocular oncology. The world turns.

ARVOnews: What do you tell young women scientists about moving ahead in the field?

Jager: I tell men and women to work hard for what they wish, and that they can do anything they want to do.

ARVOnews: What influence might a program like WEAVR have?

Jager: I hope that travel grants will help women go to the ARVO Annual Meeting when they would not be able to go otherwise — and perhaps some women may get involved and stay in research through their international connections and opportunities. ■



Women in Eye and Vision Research Luncheon

Tuesday, May 3, 2011
12–1:30pm
ARVO Annual Meeting
Fort Lauderdale, Florida

Join us for this networking event featuring guest speaker Martine Jager, MD, PhD, FARVO. Tickets for the luncheon go on sale January 21.

 See www.arvofoundation.org/weavr.

Auction to support WEAVR

The annual Women in Eye and Vision Research Silent Auction will take place on Monday, May 2, 9:30am–3:30pm. If you are interested in donating an auction item, please contact Maureen Dimont at mdimont@arvofoundation.org. ■

 See www.arvofoundation.org/weavr.

You're making it happen

Thank you to all who contributed to the ARVO Foundation for Eye Research in 2010. Through ongoing donations from ARVO members and individuals like you, as well as support from our corporate partners, we are fulfilling the mission of the ARVO Foundation for Eye Research. For a list of AFER donors, please visit www.arvofoundation.org. ■

Your donations at work

For information on AFER initiatives, including awards and programs below, visit www.arvofoundation.org

- Collaborative Research Fellowships
- Developing Country Eye Researcher Fellowships
- Clinical Trials Education Series
- AFER Travel Grants ■

Save this date!

AFER is planning a new event during the 2011 ARVO Annual Meeting in Fort Lauderdale, Fla.

2011 Investors Seminar

Unmet Needs: Emerging Frontiers in Ophthalmic Science

Friday, April 29, 2011
Lago Mar Resort ■



See www.arvofoundation.org

Why do you give to the ARVO Foundation for Eye Research?

I have been an ARVO member since the 1970s. I have seen how the organization has managed to take scientists from clinical settings and from the bench to come together, cooperate and achieve remarkable results, not only on the science level but also by bringing people from different countries and different areas of research and science together.

I was also inspired by the effort that AFER makes to bring young people into the organization during early stages of their career through awards and grants. We see quite

a lot of posters and presentations from young scientists and this is because of the encouragement at all levels of ARVO. I also found it significant that the Foundation makes a big effort to expand ARVO to different areas all around the world. No matter which country I go to, everybody knows about ARVO and its programs. ■

— *Evangelos S. Gragoudas, MD*
Charles Edward Whitten
Professor of Ophthalmology,
Harvard Medical School
Massachusetts Eye & Ear Infirmary

Giving back so others can move forward

David Pepperberg, PhD, FARVO, a regular donor to the Foundation since 2005, credits the first chairman of the Board of Governors, John E. Dowling, PhD, “as the key person who first inspired me to donate to the organization.”

From 1973–1976, Pepperberg was a postdoctoral research fellow in the Dowling laboratory at Harvard University. “Through their work in establishing AFER to complement the goals and accomplishments of ARVO, Dr. Dowling and the other founders of AFER were the stimulus for my giving,” said Pepperberg. “I am pleased to see how AFER has developed, and that those goals and achievements remain in place.”

Today, Pepperberg is a professor of ophthalmology and visual sciences, and director of the Photoreceptor Research Laboratory at the University of Illinois at Chicago. While he acknowledges the excellent work of other eye- and vision-related societies, Pepperberg recognizes AFER for fulfilling what he regards as one of the greatest needs of

vision research — helping young scientists. From his view, the addition of the ARVO Foundation has been vital to the growth of scientists just starting out and highlights programs like the multiple travel grants and early-career research awards.

“Looking back from my perspective, I can see how helpful those types of awards were to getting my career going,” he says. “Being able to contribute to and continue this process is meaningful and important to me.”

In reviewing recent AFER news and newsletters, Pepperberg notes he is happy to endorse AFER’s programs, both present and planned activities, such as the proposed Leadership Development Program and Profiles in Vision Research project.

“Being the fundraising arm of ARVO, AFER supports an organization with a huge impact on vision research around the world,” adds Pepperberg. “And I’m happy to help out in whatever way I can to foster the growth of the organization, its programs and its younger membership.” ■



2010 Champalimaud Award

Anthony Movshon: A chance to go a little crazy

We've all stepped out of a meeting to take a phone call. But how many of us have been told on that call that we have been chosen as a co-recipient of the Champalimaud Vision Award, which comes with a prize of £1 million (\$1.3 million)?

That's exactly what Anthony Movshon, PhD, FARVO, learned early last summer from Alfred Sommer, MD, MHS, who leads the Champalimaud Foundation's jury for the four-year-old prize.

"Of course I was aware of the Champalimaud award," recalls Movshon, who directs the Center for Neural Science at New York University, where he has been for most of the past 35 years. "But I did not expect to get that phone call. Sharing it with Bill [Newsome] was perfect; we've done a lot of work together. It is great when two people of equal standing get recognized by a single award."

Some of that work includes a seminal paper published in *Nature* in 1989, "Neuronal correlates of a perceptual decision" (*Nature* 1989; 6237:52-54). The two had collaborated on another significant project, published as "The analysis of moving visual patterns" (In *Pattern Recognition Mechanisms*, ed. C. Chagas, R. Gattass, C. Gross (*Pontificiae Academiae Scientiarum Scripta Varia* 54, 117-151)).

In his early studies, Movshon contributed to the understanding of how the brain represents the form and motion of objects, identifying for the first time neural circuits computing motion perception in the brain's middle temporal lobe (MT). In the 1989 study, Movshon and Newsome demonstrated that neurons in the MT visual area are responsible for perceptual judgments about direction.

By monitoring neuron responses, they could accurately predict decisions about perception, linking perception to specific activity within a neural circuit. Newsome demonstrated that by altering the activity of neurons, perceptual performance could be either improved or diminished.

Their work proved that the activity of neurons in the brain's MT is necessary in order for human beings to see moving objects in the world. They paved the way for studies of the mental processes that link perception to action and for a greater understanding of the complex

computations that underlie human decision-making and behavior.

Says Movshon, "What made it fitting that we shared this award is that each of us brought to the table exactly what the other was missing in terms of what needed to get done. People often bring similar areas of knowledge together to collaborate, but Bill and I come from different schools of neurobiology, and that blend made it possible to do this work."

Movshon got his start at Cambridge University. About his decision to go into neurobiology, he says "I think people are inspired by those they encounter as they're learning. As an



2010 Champalimaud Vision Award recipients (left to right) Anthony Movshon, PhD, FARVO, of New York University Center for Neural Studies, and William Newsome, PhD, of HHMI/Stanford University.

See *Champalimaud*, page 16

**2011 Pre ARVO
PanAmerican
Research Day**

April 30, 2011
Renaissance Fort Lauderdale Hotel
Atlantic Ballroom

Sponsored by
Pan American Association of
Ophthalmology

Co-Sponsored by
ARVO
The Association for Research
in Vision and Ophthalmology

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Phone : 954-626-1700

Registration
11:00 am - 12:30 pm

Working Session
12:30 pm - 5:30 pm

Keynote Speakers

Cocktail reception
(light buffet
will be served)
Garden Terrace
6:00-9:00 pm

10 Travel
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Learn about the current research and state-of-the-art technology in ophthalmic imaging

Submit your abstract by February 14, 2011

April 30, 2011
Fort Lauderdale,
Florida

www.arvo.org/isie

Champalimaud, continued from page 15

undergraduate at Cambridge, I had no notion of what I wanted to do.”

But his time at Cambridge coincided with Colin Blakemore’s time there. “He was an energetic, inspiring figure. He was my tutorial teacher in neurophysiology and I did my final year research project under him. The Cambridge environment at that time was terrific, with many groundbreaking contributors in neurophysiology and psychophysics.”

Movshon counts his work with Newsome as among the most rewarding of his career. “Every scientist has a private view of his or her own work. The best-known work is not always the work you feel was your best. But I have to say that to me, the work that Bill and I did together is the most important work I’ve done.”

Although the Champalimaud Award funding comes without restrictions, as Movshon notes, “It’s a research award, so you can’t go out and buy the Lamborghini. Still, it gives me the opportunity to try something different.” He is currently undecided about what the “something different” might be. For now, he’s exploring the possibilities.

“Non-scientists aren’t always aware that research is always a study in failure. You have modest successes and incremental gains, but most individual pieces of work are not successful. So when money is tight, it’s harder to take risks. The huge advantage of this unrestricted award is that I can go out and try something a little crazy. I can risk failure.”

William Newsome: Connecting the dots

The following excerpt is reprinted with permission from the Stanford Office of Communication & Public Affairs. The original news release was published June 11, 2010.

William Newsome, PhD, professor of neurobiology at the Stanford University School of Medicine, has received this year’s Champalimaud Vision Award for his groundbreaking research into the brain circuitry underlying the mysterious cognitive process that is vision and, ultimately, another equally mysterious process: decision making.

Newsome said he and [Anthony] Movshon chose to focus on this brain area because its circuitry was fairly simple (at least relative to those involved in, say, face recognition) and had already been somewhat mapped out, and because detecting motion (and making quick decisions based on that detection) is of great importance to survival. “You can’t tackle the totality of cognition all at once. You have to narrow it down,” he said.

The cash windfall will enable Newsome to take a few steps back from his work to look at what he sees as the bigger picture. “Neuroscience is going to affect all of us,” he said. From economists studying how people make financial decisions to law professors debating the reliability of neurophysiological lie-detection methodologies to educators trying to figure out the best way to help kids overcome learning disabilities, connecting the dots that translate the firing of nerve cells into actual human behavior is a growth area with profound societal implications. “I want to redirect my efforts toward participating in that conversation.” That probably means a sabbatical is in the cards. ■



ARVO/Champalimaud Award Lecture

2011 ARVO Annual Meeting
Fort Lauderdale, Fla.
Wednesday, May 4, 5:45–6:30pm

Anthony Movshon, PhD, FARVO
Encoding and decoding of information by visual cortical neurons

William Newsome, PhD
A dynamic systems approach to visually based decision-making

The lectures will be followed by a reception; all are welcome.

Upcoming events



Designing and Managing Clinical Trials in Eye Research
April 30, 2011
Fort Lauderdale, Fla.

Clinical trial methodology, analysis and management is tailored specifically for vision and eye researchers in the early stages of their careers. Didactic presentations will be followed by breakout session on designing a trial.

i See www.arvo.org/ctes.



January 20–22, 2011
Singapore

Nearly 1,000 eye and vision researchers will attend the Asia-ARVO Meeting, January 20-22 in Singapore.

i See www.arvo.org/asiaarvo or contact the meeting secretariat at asiaarvo2011@seri.com.sg.



ARVO/Pfizer Ophthalmics Research Institute
April 29–30, 2011, Fort Lauderdale, Fla.

The ARVO/Pfizer Ophthalmics Research Institute is a series of multi-disciplinary research conferences held just prior to the ARVO Annual Meeting. These conferences are funded by the ARVO Foundation for Eye Research through a grant from Pfizer Ophthalmics. The topic for the 2011 Institute is Biomarkers in Glaucoma.

i See www.arvofoundation.org



Plan now to attend this one-day conference focusing on original research on current advances, as well as state-of-the-art technol-

ogy 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.

i See www.arvo.org/isie or contact Jot Grammer (jgrammer@arvo.org, +1.240.221.2933).



Mark your calendar for this conference, which aims to promote interaction between cell biologists working in all areas of ocular health and disease.

i See www.arvo.org/isocb or contact Rhonda Williams (rwilliams@arvo.org, +1.240.221.2908). ■

ARVO Symposium at VSS Annual Meeting

May 6, 2011
Naples Grande Beach Resort, Naples, Fla.

This co-sponsored symposium showcases the exciting and relevant work taking place in ARVO's domain. The speakers include Greg D. Field, PhD, of the Salk Institute, Jay Neitz, PhD, of the University of Washington and Jonathan B. Demb, PhD, of the University of Michigan. ■

i See www.visionsciences.org/meeting.html.



I am the future of eye and vision research.

Fight for Sight Research Opportunities

Fight for Sight awards up to \$300,000 annually to new researchers investigating eye disease and vision disorders. Deadline for all applications February 1. **Details and applications at www.FightForSight.org or 212-679-6060.**

- **Summer Student Fellowships:** \$2,100 to undergraduates, graduate and medical students interested in eye research.
- **Post-Doctoral Fellowships:** \$20,000 to individuals (PhD, MD, DrPH, OD, or DVM) interested in academic careers in basic or clinical research in ophthalmology, vision or related science.
- **Grants-In-Aid:** \$20,000 for junior faculty who have no external support. Awards can be used for equipment, supplies and support staff.

2012 ARVO Awards

Call for Nominations | Deadline: March 1, 2011

For young investigators

- Cogan Award — must be 40 or younger at time of nomination
- AFER/Pfizer Ophthalmics/Carl Camras Translational Research Awards — must be 45 or younger at time of nomination

For career achievement

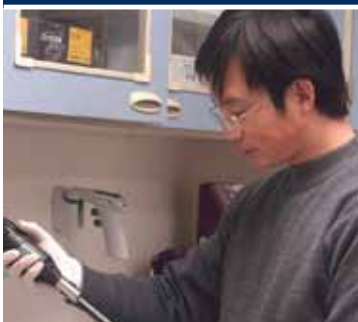
- Proctor Medal
- Friedenwald Award
- Weisenfeld Award
- Kupfer Award
- Special Recognition



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The Association for Research
in Vision and Ophthalmology

Congress recesses without finalizing NIH/NEI funding

At press time in mid-December, Congress was headed toward passing a Continuing Resolution (CR) that would fund most government programs at the FY2010 level until March 4, 2011. This would be the third in a series of CRs, as Congress had not finalized any appropriations bills before adjourning.

The Senate Democratic leadership had hoped to pass an omnibus funding bill that would have increased NIH funding by \$750 million, about \$250 million less than the \$1 billion increase proposed in both the House and Senate Labor, Health and Human Services, and Education (LHHS) funding bills, as well as the President's budget, as shown in the accompanying chart. That effort failed due to lack of support by Republican members, who were concerned about earmarks in the bill. Previously, the House had passed a full-year CR, which was not acted upon by the Senate.

Significant impact

The impact of being flat-funded for upwards of half a fiscal year is significant. NIH/NEI will not have an inflationary increase, losing purchasing power. NIH institutes and centers (I/Cs) will also be limited in the commitments they can make, jeopardizing the progress of research and the stability of the workforce conducting it.

Another unknown in this process is the fate of funding for the Cures Acceleration Network (CAN), which was authorized by Congress at \$500 million in healthcare reform legislation

passed earlier in 2010 [Patient Protection and Affordable Care Act, P.L. 111-148].

CAN was created to assist NIH in the rapid translation of basic research into treatments and is an important component of a new NIH strategy regarding translational research (see story on page

21). In the proposed FY2011 funding bills, NEI and the other I/Cs were tapped to initially underwrite CAN at a level of \$50 million.



NAEVR
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Advocacy Day opportunity

On January 28, NAEVR will host an Advocacy Day for the ARVO Annual Meeting Program Committee, engaging both US and international members in Capitol Hill visits with their Congressional representatives. This event provides an opportunity for ARVO advocates to meet with new members and educate them about the value of vision research funding, describe the impact of flat-funding and request that FY2011 appropriations be finalized. ■

Optometry community urges Congress to finalize FY2011 appropriations

During the American Academy of Optometry's annual meeting in San Francisco in mid-November, NAEVR Executive Director James Jorkasky hosted a NAEVR Central booth, which provided an opportunity for attendees to send e-mail letters urging Congress to finalize FY2011 NIH funding at \$32 billion. ■



Earl Smith, III, OD, PhD, FAAO (Dean, University of Houston College of Optometry; right) contacts Congress from the NAEVR Central Booth while NAEVR Executive Director James Jorkasky assists. Smith, who serves as president of the Association of Schools and Colleges of Optometry, also received the Charles F. Prentice Medal Award from the American Academy of Optometry at this year's meeting.

	FY2009 Final**	FY2010 Final**	FY2011 President's Request	FY2011 Senate	FY2011 House^^
NIH*	\$30.3B +3.2%	\$31B +2.3%	\$32B +3.2%	\$32B +3.2%	\$32B +3.2%
NEI	\$688.5M +3.2%	\$706.66M^ +2.6%	\$724.36M +2.5%	\$723.22M +2.3%	

* Net of Transfers/One-Time Expenses

** Absent ARRA Funding (\$175 M for NEI over two fiscal years)

^ \$707.04 M appropriation reduced by transfer of programs to National Library of Medicine

^^ House Appropriations Committee not yet approved bill or provided Institute details

ARVO Board to Congress: Research pays off

ARVO Board members — including two Trustees from outside the US — trekked to Capitol Hill in Washington, D.C. last October to make sure Congressional staff understand how both regular and stimulus funding make breakthrough research possible, as well as helps recruit and retain trained personnel. Trustees stressed the potential of their research to improve quality of life and save expenses to the healthcare system.

Trustees were in town for a Board meeting. Their Hill trip was organized by NAEVR as part of ARVO's twice-a-year Advocacy Days.

They emphasized the importance of timely appropriations to ensure the continuity of research and retention of trained staff, since Congress had yet to finalize FY2011. This means the NIH and other government agencies are currently being funded at the FY2010 level, so non-competing grants are funded at less than 100% until the FY2011 NIH appropriation is finalized.



From left: Jeffrey Boatright, PhD, FARVO (Emory University); Paul Mitchell, MD, PhD, FARVO (University of Sydney, Australia); Carol Toris, PhD, FARVO (University of Nebraska); Jacob Pe'er, MD, FARVO (Hadassah-Hebrew University, Israel); Nicholas Delamere, PhD, FARVO (University of Arizona); and John Penn, PhD, FARVO (Vanderbilt Eye Institute/Vanderbilt University).

Immediate-Past ARVO President Nicholas Delamere, PhD (University of Arizona) visited the Arizona delegation offices, reporting that his department received \$750,000 in American Recovery and Reinvestment Act funding that was especially helpful in retaining staff.

“My biggest achievement in the past two years was not cutting staff, and that should not be how I am spending my time in research,” he said, adding that once trained staff are lost, they usually move out of state to another academic institution or leave vision research entirely.

Paul Mitchell, MD, PhD (University of Sydney), a clinician-scientist from Australia who accompanied Delamere, added his perspectives on the larger global impact of NIH's research leadership. He described the impact of NEI-funded epidemiologic studies to characterize incidence of eye disease and vision impairment in the aging population, diverse ethnic populations and in children.



Mitchell (left) and Delamere with Kelsey Mishkin in the office of Rep. Raul Grijalva (D-AZ).



Penn with Cara Dalmolin in the office of Rep. Marsha Blackburn (R-TN).

International advocate Jacob Pe'er, MD (Hadassah-Hebrew University, Israel) also added his perspectives in visits with the Georgia delegation, as he accompanied ARVO President-elect Jeffrey Boatright, PhD (Emory University). ■



Penn with ARVO President J. Mark Petrash, PhD, FARVO (Rocky Mountain Lions Eye Institute/University of Colorado at Denver). During an October 2009 ARVO Board Advocacy Day, Petrash described for Colorado delegation offices his ARRA-funded Challenge Grant of \$1 million that enabled him to hire a PhD-level scientist.



Toris with Charlie Ellsworth in the office of Senator Ben Nelson (D-NE).



Pe'er (left) and Boatright with Michaelleen Crowell in the office of Rep. John Lewis (D-GA).

NIH to study consolidation, creation of “addiction” institute

On November 15, NIH Director Francis Collins, MD, PhD, announced that he was forming a task force to study the implications of centralizing all substance use, abuse and addiction research and related public health initiatives within one new institute.

NAEVR opposed consolidating institutes in its public comments at the NIH Scientific Management Review Board’s (SMRB) May and September meetings, maintaining that there may be greater pressure on NIH to merge or “cluster” the budgets of other institutes.

Collins’ decision to form a task force comes after the Substance Use, Abuse, and Addiction (SUAA) Working Group of the SMRB voted in a September meeting — and subsequently recommended in a written report — to dissolve the National Institute on Drug Abuse (NIDA) and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and centralize addiction programs and related activities in one new Institute.

Collins says all existing substance use, abuse and addiction research programs will continue status quo during this review. The NIH Reform Act of 2006, which established the SMRB as an entity to develop recommendations on NIH structure and management, also details a process by which Collins must inform Congress about any potential changes. This detail requires a full analysis of the programmatic and funding issues associated with any structural change, which is the task force’s charge.

Recognizing that these programs may exist in upwards of all 27 NIH institutes and centers (I/Cs), Collins has asked Principal Deputy Director Lawrence Tabak, DD.S, PhD, and National Institute of Arthritis and Musculoskeletal and Skin Diseases Director Stephen Katz, MD, PhD, to consider what I/C programs should be included in a centralized institute, as well as those NIDA/NIAAA programs that may need to be moved to other I/Cs, such as end-target organ research.

In 2001, then-NIH Director Harold Varmus, MD, who has subsequently returned to the NIH as the National Cancer Institute director, proposed to cluster the budgets/programs of the 27 I/Cs into six units, including a “brain institute” which would have incorporated the NEI.

NAEVR has consistently opposed this action, including fighting a similar provision in the draft NIH reauthorization legislation in the 2004–2006 timeframe, saying that “front of the eye” corneal research could be minimized in a “brain institute.”

During the SMRB’s September discussions, Varmus supported the concept of an addiction institute and commented that he would “be happy to see [my] 2001 proposal back on the table for consideration.”

NAEVR will stay vigilant on this issue. ■



National Cancer Institute (NCI) Director Harold Varmus, MD, commented that he would “be happy to see [my] 2001 proposal back on the table for consideration” to consolidate NIH’s 27 institutes and centers into six units.

SMRB recommends new translational research center, clinical center changes

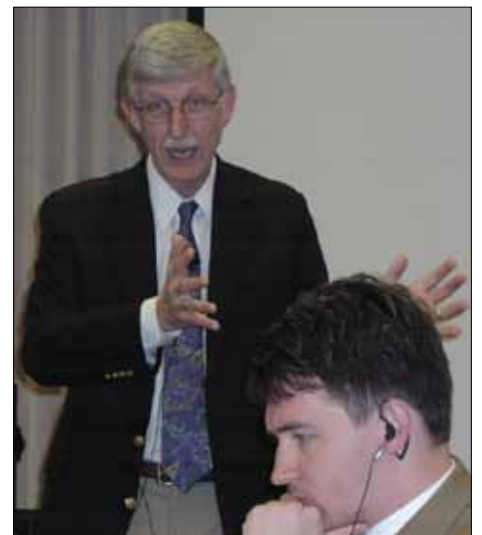
At its December 7 meeting, the SMRB approved a recommendation to Collins that NIH create a new translational research center.

The recommendation was developed by the SMRB’s Translational Medicine and Therapeutics (TMAT) Working Group, which was charged with fast-tracking a set of recommendations about a comprehensive NIH translational research strategy. The strategy includes the Cures Acceleration Network.

The December recommendation endorsed an NIH commitment to develop a detailed analysis of the impact of a new center on current I/Cs programs, especially those funded through the National Center for Research Resources (NCRR).

Collins agreed that NIH would develop such a plan within the next three months, which would include an opportunity for NCRR stakeholders to comment, beyond those who testified at the December 7 meeting.

NAEVR provided testimony urging that any centralized center not stifle creative approaches to translational research, such as the NEI has done through its partnerships within other I/Cs, sister Department of Health and Human Services (DHHS) agen-



NIH Director Francis Collins, MD, PhD, speaks to the SMRB.

See SMRB, page 22

SMRB, continued from page 21

cies, with other government agencies and with private research funding sources.

At the meeting, the SMRB also approved recommendations developed by its NIH Intramural Program (IRP) Working Group

that the NIH Clinical Center should be funded through a dedicated line item in the NIH Director's budget, that its governance structure be streamlined, and that resources should be optimally managed to enable both internal and external investigator use. ■



“Exciting time in AMD research,” says international clinician-scientist

At a congressional briefing last September, Hendrik Scholl, MD, of the Wilmer Eye Institute at Johns Hopkins University and formerly of the University of Bonn, provided

international perspectives from his clinical and research activities in Germany, the United Kingdom and the US. Several staffers publicly stated that it was the best briefing they had attended this year.

Scholl's talk was part of an AEVR Decade of Vision 2010-2020 Initiative briefing (co-sponsored by ARVO) that recognized International AMD Awareness Week 2010. The event had a true global nature, as it was also co-sponsored by the AMD Alliance International (AMDAI) and the

European Vision Institute (EVI). AMDAI's Allie Laban-Baker described a March 2010 report by her organization which estimated that 33 million people worldwide currently experience vision impairment from AMD at a direct healthcare cost of \$255 billion.

Scholl gave an overview of basic and translational research into AMD — much of which is funded by the NEI — and discussed differences in biomedical research funding mechanisms between Europe and the US. He is a practicing ophthalmologist whose research relates to retinal degenerations and the development of therapeutic measures in order to retain and restore vision.

“Fifteen years ago, there was not a lot new in AMD research, but now it is one of the hottest

“Fifteen years ago, there was not a lot new in AMD research, but now it is one of the hottest areas.”
—Hendrik Scholl, MD



From left: Members of the vision community attending the briefing with Scholl (center) included Michael Duenas, OD (American Optometric Association), Bobbie Ann Austin, PhD (ARVO), Lauren Finkelstein (Association of Schools and Colleges of Optometry), and Rebecca Hyder and Steve Miller (American Academy of Ophthalmology).



From left: AEVR's James Jorkasky, Hendrik Scholl, MD (Wilmer Eye Institute/Johns Hopkins University), and AMD Alliance International's Allie Laban-Baker.

areas,” he said. He described how the NEI has recently created an International AMD Genetics Consortium to share global data on the genetic associations implicated in AMD.

To date, 22 such associations have been



Prior to the briefing, Scholl visited Maryland Congressional offices, including that of Rep. Chris Van Hollen (D-MD), in whose district the NIH is located. Scholl described in detail for Legislative Assistant Ray Thorn the differences between European and US biomedical research funding mechanisms.

discovered, including gene variants in the body’s immune and cholesterol pathways that increase susceptibility for AMD. With this knowledge, researchers can develop diagnostic and therapeutic strategies.

For example, researchers are investigating the potential for the modulation of the innate immune system to treat AMD, to use genetic and protein biomarkers to investigate pharmacogenomics, and to use the latest technology to monitor therapeutic responses. They are also investigating the use of various stem cell therapies for retinal repair.

Scholl noted that government funding for biomedical research in Europe is fragmented compared to the centralized nature of federal funding in the US. “Funding is only available from the European Commission if it has first issued a specific ‘call’ for that type of research,” he stated, also noting that public funding mechanisms can vary between countries and even states within those countries. ■

Tabak named NIH principal deputy director



NAEVR has written to Lawrence Tabak, DDS, PhD, and congratulated him on his recent appointment. He previously served as director of the National Institute of Dental and Craniofacial Research. ■



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Visit NAEVR Central at ARVO 2011

Meet your Hill champions James Jorkasky and David Epstein from the National Alliance for Eye and Vision Research

- E-mail your Congressional delegation about adequately funding eye research in FY2012
- Sign up for the ARVO Public Policy Network to receive early information on appropriations and ways to assist with advocacy for funding
- Learn about the Department of Defense funding available for eye research

NAEVR Central, Sunday, May 1–Tuesday, May 3, 2011
ARVO Annual Meeting | Fort Lauderdale, Florida

www.eyeresearch.org



A national plan for vision research



Paul A. Sieving, MD,
FARVO,
National Eye
Institute Director



As of the time of writing in December 2010, Congress has not yet passed FY2011 appropriations, and the NEI is operating under a Continuing Resolution (CR), Public Law 111-242.

This means that the NEI is operating with fiscal constraints based on FY2010 budget levels and with a plan that involves two separate categories:

- Research Project Grants, including the Independent Investigator Award (R00), Research Project Grant (R01), Academic Research Enhancement Award (R15) and Exploratory/Development Award (R21) that constitute more than 80% of NEI extramural grant funding. Non-competing continuing awards currently are being issued at a level of 90% of the previously-committed level on the most recent Notice of Award. When final appropriations are enacted, and depending on the nature of the final budget, the NEI will consider upward adjustments to provide the fully-committed level. NEI is also prudently making some competitive awards for December 1, 2010, within the limits of monies available from the CR.
- Other Grant Mechanisms, during the continuing resolution, are being issued for non-competing awards at the full level committed on the previous Notice of Award. NEI expenditures for competitive awards are being carefully monitored.

ARRA update

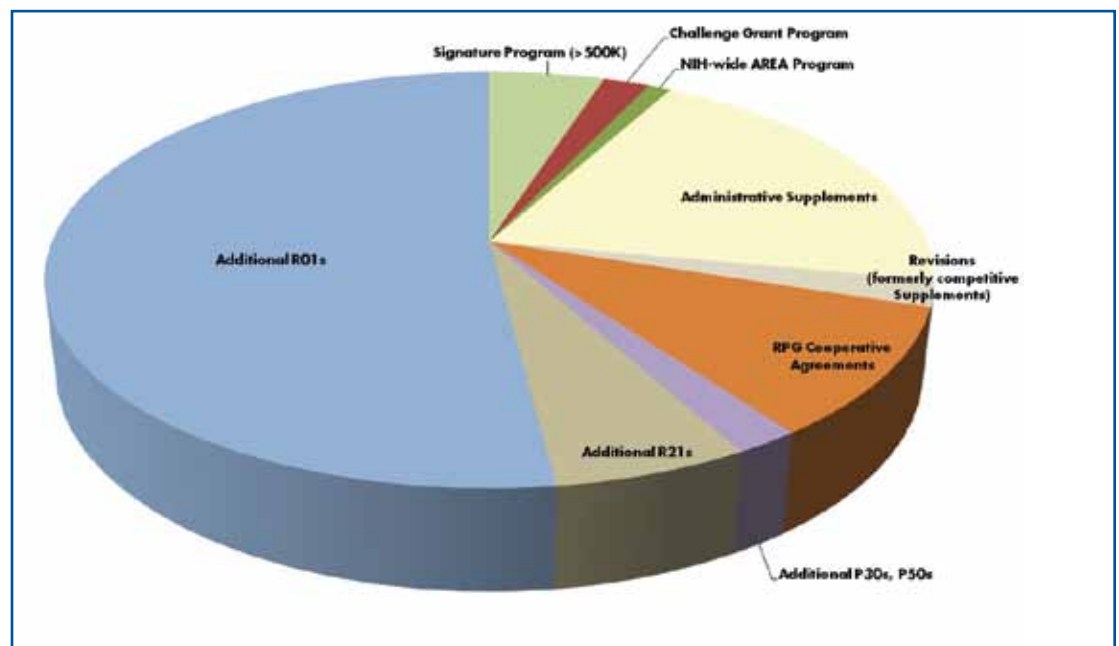
The American Recovery and Reinvestment Act (ARRA) was enacted into law in 2009 and provided two-year funding, through September 30, 2010. The National Institutes of Health (NIH) received \$9.9 billion under this legislation. Under the \$7.3 billion directed to the individual NIH Institutes and Centers, \$168 million was appropriated for NEI. The NIH Office of the Director received \$2.6 billion that was made available competitively.

The ARRA act had a three-fold purpose: to stimulate the American economy, create or retain jobs for American citizens, and accelerate scientific progress to improve the health of the American public. The chart below presents the NEI's strategy for awarding these funds.

We worked to balance several priorities: preserve jobs within the vision research community, avoid creating a drain on out-year funding that could not be met by anticipated NEI budgets, and provide opportunity to support new "high-risk, high-pay off" research.

NEI used a broad spectrum of funding mechanisms, but the majority (nearly 60%, or \$100 million) of its ARRA appropriation was directed to fund additional grants beyond the normal appropriation pay line. These grants included the Research Project Grant (R01), Exploratory/Developmental Grant (R21), Center Core Grant (P30) and Cooperative Clinical Research

NEI ARRA Dollars (\$168 million)



Agreement (U10) funding mechanisms. This approach met all three ARRA goals. It funded meritorious scientific projects which had undergone the normal NIH peer review process but just missed the funding pay line. These grants were "shovel ready," fully developed projects which could be started immediately to contribute to the economic stimulus. And they contributed both to creating and retaining jobs for scientists across all areas of vision research.

The remaining 40% of the ARRA funds (roughly \$68 million) was used to support new research ideas submitted primarily by extramural scientists in response to special ARRA Funding Opportunity Announcements. About half of this funding went into competitive or administrative supplements to existing NEI grants, and the remainder supported Challenge Grants, Signature Program Grants and the NIH-wide Academic Research Enhancement Award (AREA) program.

In addition to receiving NEI ARRA monies directly from NEI, vision researchers also competed successfully for over \$919 million in ARRA funds from the NIH Office of the Director and other institutes. Examples include:

- \$1.2 million Comparative Effectiveness Research
- \$900 million Shared Instrumentation (to institutions with vision research programs)
- \$5.7 million in Challenge Grants
- \$6 million in BRDG-SPAN Awards (to small businesses)
- \$4 million NIH Director's Opportunity Awards
- \$1.1 million AREA Grants
- \$510,000 Summer Research Experiences for Students and Science Educators
- \$400,000 Small Business Catalyst Awards
- \$250,000 Basic Behavioral and Social Science Opportunity Network (OppNet)

Lens and fundus images now available

Recently, the NEI announced a new opportunity for the vision research community with the expansion of clinical research data from the Age-Related Eye Disease Study (AREDS).

More than 72,000 lens and fundus photographs from 595 study participants are now available through the National Center for Biotechnology Information online database of genotypes and phenotypes, known as dbGaP.

AREDS was one of two studies included in the December 2006 launch of dbGaP. The database included genetic information gathered from genome-wide scans of DNA samples from 600 AREDS study participants. In 2008, investigators updated dbGaP to include 10-year clinical trial and

natural history information from the 4,757 total AREDS participants.

The current digital images provide a valuable new resource for exploring the relationship between genetic variations and observable traits and may aid in identifying genetic factors that play a role in age-related macular degeneration and cataract. Researchers can apply for controlled access to de-identified genetic and clinical AREDS information, including the new images, at www.ncbi.nlm.nih.gov/gap.

President's Early Career Awards recipients

It is a pleasure to congratulate two members of the vision community, Brian P. Brooks, MD, PhD and Doris Ying Tsao, PhD, who were selected to receive the 2009 Presidential Early Career Awards for Scientists and Engineers (PECASE).

The Presidential early career awards represent the highest honor bestowed by the US government on outstanding scientists and engineers beginning their independent careers. As PECASE recipients, Brooks and Tsao have demonstrated exceptional leadership potential at the frontiers of scientific knowledge.

Brooks is being recognized for his research on a number of inherited eye diseases, including developmental and molecular genetic studies of uveal coloboma, which accounts for about 10% of childhood blindness. He is chief of the National Eye Institute Pediatric, Developmental, and Genetic Ophthalmology Unit, serves as principal investigator for the National Ophthalmic Disease Genotyping and Phenotyping Network (eye-GENE®), and directs the Ophthalmic Genetics Clinic at Children's National Medical Center in Washington, DC. Brooks received his MD and PhD from the University of Pennsylvania. He received a Young Investigator Award from the American Association of Pediatric Ophthalmology and Strabismus and the NIH Director's Award.

Tsao's research focuses on understanding how the brain interprets and transforms visual information into various three-dimensional shapes and forms, using brain imaging and electrical recordings from single neurons. Her work may shed light on clinical conditions such as prosopagnosia (the inability to recognize faces). Tsao is an NEI grantee and an assistant professor of biology at the California Institute of Technology, which she joined in 2009. She received her PhD from Harvard University in 2002. Her research has won numerous awards, including a Sofia Kovalevskaya Award from the Humboldt Foundation in 2004. ■

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IOVVS and JOV are being optimized for web connected small screens. An improved web interface will allow you to read ARVO's journals easily from any connected device, including your Smartphone or iPad. The commonly used features you see on your desktop versions are being enhanced for use for the reader on the go. Try it: go to www.iovs.org or www.journalofvision.org. Soon it will be even better. Watch *Insight*, ARVO's e-newsletter, for more details. ■

Journal news: Plagiarism checker and other upgrades

Starting in December last year, new submissions to *IOVS* and *JOV* have been randomly checked against plagiarism and previous publication using the iThenticate Plagiarism Checker. iThenticate also randomly checks all papers that have received a final decision of "accept."

The new system will reduce the burden on reviewers (who are volunteers), editors and journal staff, who were previously the front line in recognizing and avoiding plagiarism and duplicate submission. The iThenticate system compares submissions to billions of documents in repositories that include shallow and deep Web content (both current and archived), as well as a tremendous breadth of proprietary content from global publishers, aggregators and syndicators worldwide including newswires, newspapers, periodicals, journals, magazines, e-books, reference encyclopedias, academic textbooks and more.

Plagiarism and duplicate submission could likely result in an immediate rejection of a paper. In addition, the journals may ban future submissions from authors who have been found to plagiarize or submit articles to more than one journal.

Upgrade to HighWire Press H2O platform

The migration of *IOVS* and *JOV* to the new platform is now complete. Readers and subscribers now have an array of features to choose from to ensure they are kept up to date on the latest articles published in their field. Authors can receive notification if their articles are cited in any journal hosted by HighWire Press. Sign up for these notifications using your preferred key words and index terms.

Cited-by linking

Recently, ARVO entered into an agreement with CrossRef for "cited-by linking," an additional feature that enables content from both *IOVS* and *JOV* to be linked to existing publications. This extends the availability of article linking to publications that are not hosted by HighWire Press, as long as those publishers participate in the metadata deposits to CrossRef. Clicking on the [>>CrossRef](#) link in a reference takes the reader to the particular article. ■



Andrew B. Watson, PhD
JOV Editor-in-Chief

Special issue on color perception

All articles for the latest *JOV* special issue on *Perception of color and material in complex scenes* are now published. This special issue, containing 18 articles, an introduction and an overview, is available online at journalofvision.org/content/10/9.toc.

The overview, "Color and Material Perception: Achievements and Challenges," written by Guest Editors Laurence T. Maloney, PhD (New York University), and David H. Brainard, PhD (University of Pennsylvania), considers how after more than a century, researchers have "developed an accurate if still incomplete outline of how the human visual system assigns lightness and color descriptors in such 'flat-matte scenes.'"

The current special issue is a sequel to *JOV*'s 2004 special issue *Perception of color and material properties in complex scenes*, on which Brainard and Maloney also served as guest editors.

They outline five broad themes (below), and note that even as

researchers reach greater understanding, new challenges arise.

- Characterizing, estimating and discriminating the light field
- Complex light fields and surface color/lightness perception
- Surface material perception: gloss, roughness
- Interactions
- Novel themes ■

journal of **VISION**
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IOVS: Toward a new decade

2010 has been a record year for IOVS. The number of submissions continued to increase, and at press time (early December), the journal had received over 1,900 submissions during the year.

Free color pages for members

The most exciting piece of news is that the Board of Trustees unanimously approved free color pages for members (who are first or corresponding authors **at the time of submission**) and a reduction in color page charges for nonmembers to \$50 per color page (who are first or corresponding authors) in addition to normal page charges. This will apply to submissions received from 2011 onwards.

Research now published daily

Read newly published IOVS articles every day starting in January. Every article will be published as soon as it is ready rather than as a collected issue. Log on daily to see the new articles and to watch the table of contents grow through the month. The same topical sections that you're used to will still be there. You can also sign up for alerts when a new article is published.

New sections and more

Over the past decade the journal has grown steadily and has continued to be innovative and forward-reaching by adding new editorial sections and article types. In 2010 the journal published its first articles from two of the three new editorial sections, as well as reviews, perspectives, a point/counterpoint and a Low Vision article.

Genetics

- A Novel *ADAMTSL4* Mutation in Autosomal Recessive Ectopia Lentis et Pupillae, by Anne E. Christensen et al. doi:10.1167/iops.10-5597
- Association of Glutathione S-Transferases Polymorphisms (GSTM1 and GSTT1) with Senile Cataract: A Meta-analysis, by Lei Sun et al. doi:10.1167/iops.10-5815
- Engineered Zinc Finger Nuclease-Mediated Homologous Recombination of the Human Rhodopsin Gene, by David L. Greenwald et al. doi:10.1167/iops.10-5781

Multidisciplinary Ophthalmic Imaging

- Evaluation of Contrast Agents for Enhanced Visualization in Optical Coherence Tomog-

raphy, by Justis P. Ehlers et al. doi:10.1167/iops.10-6195

- Retinal Structure of Birds of Prey Revealed by Ultra-High Resolution Spectral-Domain Optical Coherence Tomography, by Marco Ruggeri et al. doi:10.1167/iops.10-5633

Nanotechnology and Regenerative Medicine

Two articles have been accepted and will be published in 2011.

Low Vision

After being approached by representatives from the International Society for Low Vision Research and Rehabilitation (ISLRR), whose journal, *Visual Impairment Research*, had ceased publication, the ARVO Board of Trustees agreed to add a new Low Vision section, and the first article in this category was published in the December issue.

- Driving with Hemianopia, II: Lane Position and Steering in a Driving Simulator, by Alex R. Bowers et al. doi:10.1167/iops.10-5310
- Gary Rubin was appointed to the IOVS Editorial Board to assist with the handling of manuscripts in this new category.

Review articles

- The Applications of Atomic Force Microscopy to Vision Science, by Julie A. Last et al. doi:10.1167/iops.10-5470
- The Mouse Retina as an Angiogenesis Model, by Andreas Stahl et al. doi:10.1167/iops.10-5176

Point/Counterpoint

IOVS published the first "Point/Counterpoint" discussion, in which David Beebe and Paul Donaldson debated on "A Critical Appraisal of the Lens Circulation Model—An Experimental Paradigm for Understanding the Maintenance of Lens Transparency?" doi:10.1167/iops.10-5350.

Perspectives

- AGEs and Diabetic Retinopathy, by Alan Stitt. doi:10.1167/iops.10-5881
- Interpretations of Fundus Autofluorescence from Studies of the Bisretinoids of the Retina, by Janet R. Sparrow et al. doi:10.1167/iops.10-5852. ■



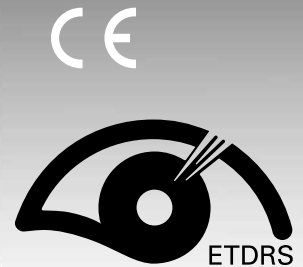
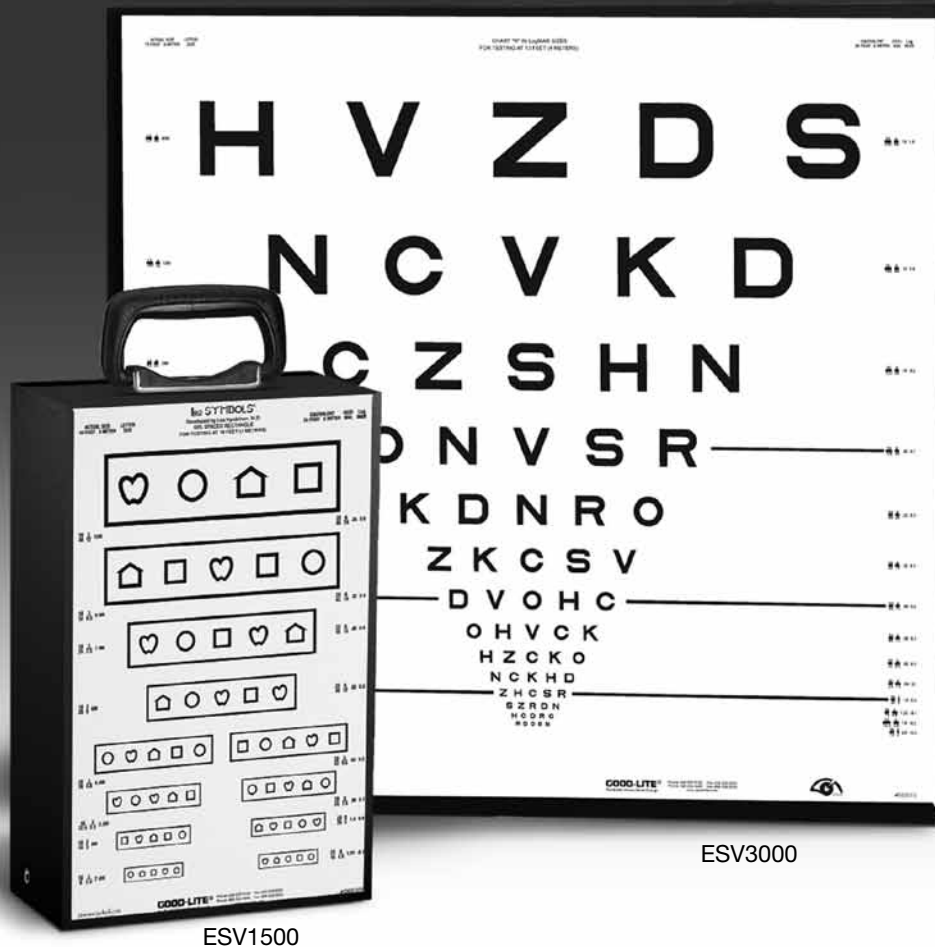
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