

A MESSAGE FROM THE PRESIDENT

LARRY J. TAKEMOTO, PHD

Worldwide Advancement of Vision Research



As a member of the ARVO Board of Trustees for the past five years, I am honored to have the opportunity to serve as President of

ARVO this year. I am proud of the outstanding accomplishments that ARVO is achieving to facilitate the worldwide advancement of vision research. I believe that ARVO is well poised for the future.

Membership

We continue to see significant growth in our membership. ARVO membership consists of over 11,300 basic and clinical eye and vision researchers. This year, three Sections grew to more than 1,500 members each, reflecting the growth of researchers entering the field of vision research. And members of ARVO remain members; we have a 91 percent renewal rate that reflects the value our membership places on its affiliation with ARVO.

Global Presence

ARVO is also expanding its presence around the world. During the past year, ARVO has cosponsored meetings and sessions in Singapore, India, and Chile, and will be presenting a session at EVER in Portugal in October 2005. International representation in the ARVO membership remains at 42 percent, which shows the work that is being done to further scientific vision research for the prevention and cure of eye diseases around the world. As part of our strategic planning process, we continue to discuss ways to better serve

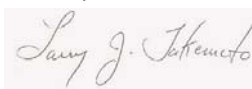
our international members. We are moving forward with implementing a pilot program to establish International Affiliate Chapters. Furthermore, at the ARVO Annual Meeting, the Board of Trustees approved \$50,000 to be allocated for international travel grants for 2006. We encourage international members to volunteer for ARVO Committees in order to participate in the activities and set the direction of the Association.

Annual Meeting

We had another record-breaking year with more than 9,700 professionals attending the Annual Meeting at the Fort Lauderdale Convention Center. The Annual Meeting has grown into a successful global networking event that is impacting the present and future of vision research. Based on a number of ideas that emerged from our strategic planning process, this year, we added two cross-disciplinary sessions to the scientific program, and hosted workshops for basic and clinical department chairs, research administrators, members-in-training, and high school students. Over the next few years, the Program Committee will continue to implement new ideas in order to further enhance the program.

The outlook for ARVO brings growth and opportunity. We welcome input from the ARVO membership as we continue to further global scientific research.

Sincerely,



Larry J. Takemoto, PhD
ARVO President

ARVO Launches New Web Site

New features require members to login to pay dues, register,



and access the Member Directory! See page 13 for details.

ARVO Cosponsors Symposia, Exhibits at Meetings

ARVO will be a symposia cosponsor and exhibitor at a number of meetings including the American Academy of Ophthalmology, the American Academy of Optometry, and the European Association for Vision and Eye Research. For more details, see page 11.

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**2005 - 2006
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Dues renewal notices have been mailed. Renew quickly and easily online at www.arvo.org using Visa or MasterCard.

Remember! Your 2006 dues must be paid before you can access the abstract submission site!

ARVO GOVERNANCE

New Trustees 2005 – 2010



Nicholas A. Delamere, PhD, was elected to a five-year term as Physiology/Pharmacology Trustee by that Section's members. Dr. Delamere is a Professor of Ophthalmology and Visual Sciences, and

Pharmacology and Toxicology at the University of Louisville in Louisville, Kentucky. He has earned an international reputation for his studies of ion transport proteins in the lens and ciliary epithelium of the eye. Currently, his laboratory studies the way Na, K-ATPase proteins function as sodium pumps and regulators of cell proliferation and gene expression. A recipient of the Research to Prevent Blindness Inc. Senior Scientific Investigator Award, Dr. Delamere has also received the University of Louisville President's Award for Outstanding Scholarship, Research and Creative Activity. Dr. Delamere has served as Vice President of the International Society for Eye Research and is a member of the Editorial Board of *Investigative Ophthalmology & Visual Science*. Dr. Delamere earned his doctorate from the University of East Anglia in Norwich, England.



Paul Sternberg, MD, was elected to a five-year term as Retina Trustee by members of that Section. Dr. Sternberg is George W. Hale Professor and Chair of the Vanderbilt Eye Institute. He oversees an active laboratory

research program studying the pathogenesis of age-related macular degeneration. Dr. Sternberg is the recipient of the American Academy of Ophthalmology Senior Honor Award, the Vitreous Society Honor Award, the L.E. Brown Humanitarian Award from the Georgia Society of Ophthalmology, and the Heed Ophthalmic Foundation Award. He currently serves as the American Academy of Ophthalmology's Secretary of Communications and is a member of the National Eye Institute's Board of Scientific Counselors. The author and/or co-author of 204 publications, 32 chapters, and two books, Dr. Sternberg completed his medical degree with honors from the University of Chicago/Pritzker School of Medicine. ■

Upcoming Elections

In addition to Trustee elections, ARVO will be holding general elections for the Editors-in-Chief of *Investigative Ophthalmology & Visual Science (IOVS)* and *Journal of Vision (JOV)*, and for ARVO Executive Vice President. Regular, Family, Sustaining, and Life members from all Sections are eligible to vote. All members are encouraged to check their member record via the ARVO Web site to ensure that a current e-mail address is on file. This will allow voting members to receive the online notification, ballot, and voting instructions in a timely manner and to promptly record their vote and avoid the time and expense of returning a paper ballot. ■

Trustees Nominated for 2006

At their Sections' Business meetings held during the 2005 ARVO Annual Meeting, members of the Lens Section (LE), Cornea Section (CO), and Eye Movements/Strabismus/Amblyopia/Neuro-Ophthalmology (EY) Section nominated candidates to stand for election as Trustees in 2006. The LE Section has nominated **Allan Taylor, PhD**, and **J. Mark Petrash, PhD**. CO has nominated **Shigeru Kinoshita, MD**, and **Elizabeth Fini, PhD**. **Joseph L. Demer, MD, PhD**, and **David Hunter, MD, PhD**, were nominated by the EY Section.

The 2006 Trustee Elections will again be conducted using an online election system, which has been very successful during the last two years. Only voting members from these Sections will be eligible to vote for trustees. ■

2005 – 2006 Committee Chairs

The individuals listed below have been named as Chairs for ARVO Committees this coming year. Please see the ARVO Web site for Committee descriptions and activities.

Advocacy Committee

M. Christine McGahan, PhD

Animals in Research Committee

Carol B. Toris, PhD

Awards Committee

George Inana, MD, PhD

Commercial Relationships Committee

Todd P. Margolis, MD, PhD

Diversity Issues Committee

Gail Siegel, PhD

Ethics and Regulations in Human Research Committee

Dwight Stambolian, MD, PhD

Exhibits Committee

Thomas R. Friberg, MD

Finance Committee

Thomas Yorio, PhD

International Members Committee

Donald TH Tan, FRCS

Long Range Planning Committee

Gary W. Abrams, MD

Members-in-Training Committee

Daniel T. Organisciak, PhD

Professional Development and Education Committee

Marco A. Zarbin, MD, PhD

Program Committee

Paul L. Kaufman, MD

Publications Committee

David C. Beebe, PhD

Volunteer Management Committee

Larry J. Takemoto, PhD

Outgoing Committee Chairs Service Recognized

Special thanks to **Jeffrey W. Kiel, PhD** (Animals in Research), **Robert B. Nussenblatt, MD** (Awards), **Robert D. Fechtner, MD** (Commercial Relationships), **Karla Zadnik, OD** (Diversity Issues), **Gary N. Holland, MD** (Ethics and Regulation in Human Research), **Jacob Pe'er, MD** (International Members), and **Larry J. Takemoto, PhD** (Members-in-Training) who completed their Chair terms this year.

To learn more about Committee activities, contact a Committee Chair or to volunteer for a Committee, visit the Committee page on the ARVO Web site at www.arvo.org. ■

ARVO Remains Financially Sound

Thomas Yorio, PhD, Chair of the Finance Committee, reported 2004 audit results to the ARVO Board of Trustees in April. He noted that ARVO has been fortunate to continue its financial success and stability thereby providing opportunities for expanding member services. The audited financials can be found at www.arvo.org/financial/financial.asp.

For the year ended December 31, 2004, revenues were \$625,824 above budget projections. A variety of expanded revenue categories contributed:

- Dues were up \$127,250 due to a larger than anticipated number of members.
- Annual Meeting registration income was up \$146,522 due to the record number of registrants.
- Other Meetings recorded \$30,337 in income which had not been budgeted.

- *JOV* actual income exceeded budget by \$28,927.

- Other revenue items that were in excess of budget included advertising sales and investment income.

Also contributing to the surplus achieved at year-end were reductions in expenses of \$311,247. The staff worked closely with the Board and Committees to incorporate efficiencies that would sustain services but reduce costs. These included:

- Association Management System and *IOVS* and *JOV* Manuscript Central upgrades were postponed until 2005.
- Production fees for *IOVS* and *JOV* were reduced.
- Other expense items that reflected savings over the amount budgeted included Subscription costs, Marketing, and costs of the Annual Meeting.

As a result of the 2004 surplus, the decision was made to increase the balance in the Reserve Fund, bringing the Association closer to its goal of having at least six months coverage in case of an emergency. A total of \$400,000 was added to the ARVO Reserves which will help ensure that unforeseen contingencies can be met in the future. The Reserves are held in Stock and Bond Index Funds managed under the direction of the Finance Committee with oversight by the Board.

YTD 2005 has been very positive with revenue on target or above. Expenses have been kept in line as well. Sound financial results should repeat for 2005. ■

Annual Meeting Survey Results Prompt Changes

Thank you to the 955 attendees who completed the post-Annual Meeting survey, a response rate of nearly 10 percent! Respondents included both ARVO members (90.4 percent) and non-members (9.6 percent); both regular members (72 percent) and students (27 percent) were represented. The ratio of respondents from outside the U.S. was 37 percent.

The survey included general questions about the Annual Meeting program, social events, and publications. Ninety-three percent of respondents indicated that the Annual Meeting met or exceeded their expectations. One respondent noted, "This is one of the most stimulating and best organized meetings that I have attended in my scientific career."

Feedback on the program centered on poster presentations. Respondents indicated that there was too much conflict between paper sessions and poster sessions. One such comment was:

"There were too many instances where there were 2 or even 3 important posters/events on the same subject at the same time." Others indicated that there should be higher standards for accepting poster presentations. "The amount of material is enormous; there

"This is one of the most stimulating and best organized meetings that I have attended in my scientific career."

— Annual Meeting Survey Respondent

is too much marginal material, which obscures the good material," wrote one attendee. Another commented that there are "too many presentations focused on published work."

Suggestions for improving social events included a desire for events that are personal and provide an intimate atmosphere that promotes networking, possibly connected to a specific scientific Section.

The survey provided a number of suggestions for improving the Annual Meeting publications. In response, the *Program Summary Book* is undergoing a reorganization to make the book more user friendly. Suggestions about the online and CD-ROM versions of the Program Planner and Itinerary Builder will also be considered.

Additional comments were provided about shuttle bus service, security, Annual Meeting location, wireless Internet access, and the commercialization of the Meeting. All of these areas will be reviewed and concerns will be addressed in the planning process for the 2006 Annual Meeting and beyond.

All feedback about the Annual Meeting is welcome. If you have suggestions about the Annual Meeting, or would like to propose an ARVO Education Course, Summer Eye Research Conference, or other educational program, contact Ellyn Terry, Director of Meetings and Education, at eterry@arvo.org. ■

Nanotechnology Course Will Be Available Online

The 2005 ARVO Education Course, "Nanotechnology and Nanomedicine: Applications for Vision," drew nearly 300 attendees on April 30, 2005. Organized by Richard Fisher, PhD, and Paul Sieving, MD, of the National Eye Institute (NEI), the course introduced fundamental concepts, including changes in the properties of materials at the nanoscale, and the potential of nanotechnology and its application to biomedical sciences. James Hill, PhD, who has attended ARVO since 1974 commented, "I have attended a number of the different educational courses, as well as specialty lectures outside of my area of expertise. Without question, the Nanotechnology and Nanomedicine Course was the best course that I have ever attended." Another attendee noted, "I enjoyed the course. It plots a path towards the future." Through an educational grant from the NEI, the course will be available online at www.arvo.org by December 31, 2005. ■

Career Fair Resounding Success!

The relocation of the Career Fair to the registration area proved to be a positive change for employers and potential employees alike. Participating companies and institutions were impressed with the high number of qualified candidates they spoke with about all levels of positions and training opportunities. Utilizing the Career Fair in conjunction with the Placement Service provided Annual Meeting attendees and employers an outstanding opportunity to find the right match! ■



In addition to expanded Internet service at the popular ARVO Internet Suite and Cyber Café, Wireless Internet (WiFi) access was increased by 150 percent over the service provided in 2004. The high demand for significantly more WiFi access is evident and plans are underway to extend the service as much as possible in 2006, to better meet the needs of attendees. ■

"We Want Wireless!"

MEETING HIGHLIGHTS

Dr. Zerhouni Meets with ARVO Researchers, Postdocs

Prior to his keynote address at the Annual Meeting, Elias Zerhouni, MD, Director of the National Institutes of Health (NIH), met with 11 ARVO researchers and NEI Director Paul Sieving, MD, PhD, to discuss vision research's global role in scientific discovery and exciting new research in the field. ARVO President Gary Abrams, MD, was joined by ARVO Executive Vice President Paul Kaufman, MD, former ARVO President Sally Atherton, PhD, and NAEVR President Stephen



Postdoctoral Fellow Dr. Carroll

Ryan, MD, who each provided a summary of their respective institution's activities that demonstrate the breadth of NIH/NEI-sponsored research, as well as intra- and inter-institution collaboration. Specific

examples of research were provided by John Dowling, PhD, (visual neuroscience), David Williams, PhD, (imaging), Dusanka Deretic, PhD, (cell biology), Martin Friedlander, MD, PhD, (angiogenesis), Gregory Hageman, PhD, (age-related macular degeneration), and Edward Pugh, Jr., PhD, (nanotechnology). Incoming ARVO President Larry Takemoto, PhD, concluded the meeting by reiterating the eye and vision research community's support for the leadership exhibited by both Dr. Zerhouni and Dr. Sieving.

On May 2, Dr. Zerhouni was joined by fellow keynote speaker Peter Agre, MD, in meeting with ten post-doctoral fellows. After the two-hour meeting, participant Joe Carroll, PhD, commented that, "The fact that a Nobel laureate and the NIH Director placed training as one of the markers of



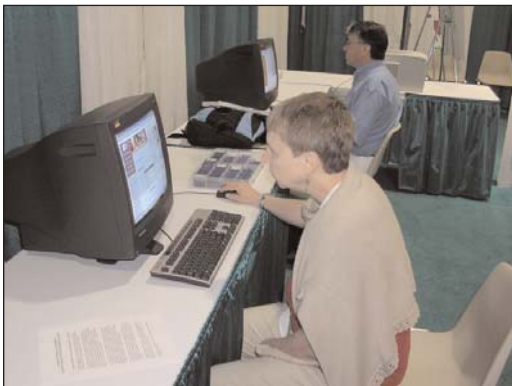
Left to right: Dr. Takemoto, Dr. Sieving, Dr. Zerhouni, Dr. Abrams

success impressed many of us, and reiterated to us how serious Dr. Zerhouni is in wanting to improve the training that young scientists receive."

Later that day, Dr. Zerhouni participated in numerous interviews with the media in which he spoke about the recent announcement by NEI-sponsored researchers on the discovery of genes strongly associated with a person's risk for developing age-related macular degeneration. ■

ARVO Members Contact Congress Regarding NIH/NEI Funding

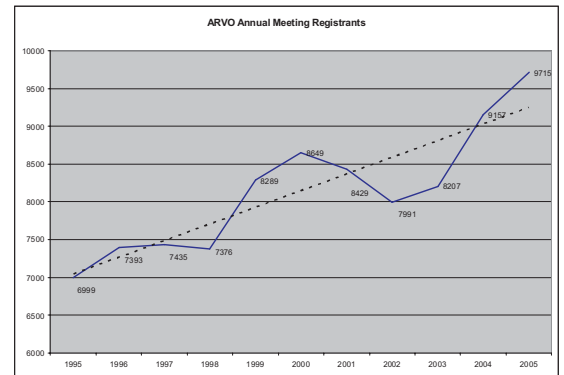
Once again, ARVO members demonstrated their strong support for funding eye and vision research by sending hundreds of e-mail letters to their elected representatives from a booth sponsored by NAEVR. The e-mails went to both the House and Senate requesting FY2006 NIH and NEI funding at \$30 billion and \$711 million, respectively. ■



Front to back: Dr. Sally Atherton and Dr. Anthony Adams contact Congress from the NAEVR booth.

Record-breaking Attendance!

Attendance at the Annual Meeting continues to grow, increasing another four percent this year to 9,715! This year's Global Networking theme was reflected in the registrants with 39 percent of the attendees from outside the U.S. representing 60 countries. ■

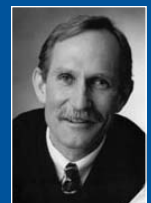


Keynote Session To Be Posted Online

The Keynote Session, presented to a standing-room only audience on May 1, 2005, was videotaped and will be available online by December 31, 2005. ■



Elias Zerhouni, MD



Peter Agre, MD



Symposia Sunday, April 30

Development in the Biochemistry and Cell Biology of Myopia

The symposium will survey the current state of research of the biochemical mechanisms and cell biology of myopia. Speakers will provide brief reviews and summarize recent data from studies of retina, RPE, choroids, and sclera in experimental models of emmetropization and myopia.

Hereditary Retinal Degeneration: Clinical Genetics, Animal Models (Small and Large), and Gene Therapy

This symposium will cover the spectrum of hereditary retinal degeneration, from clinical presentation through animal models that provide mechanistic insight and ending with an update on therapeutic approaches. The talks are intended to provide detailed overviews that will be educational to the entire ARVO community.

Proteomic Studies in the Retina and Optic Nerve: Implications for AMD and Glaucoma

This symposium will focus on the current work performed in the retina and optic nerve by leading investigators. The insights from this work may identify pathways of pathogenesis and novel therapeutic targets for retinopathies such as macular degeneration and optic neuropathies such as glaucoma.

Scar Wars

Scarring is a problem for regaining function throughout the body. In the eye, it is an issue in many parts of the eye. This symposium will explore the basic science mechanisms and clinical implications of scarring in the anterior segment of the eye and in skin.

Basic/Clinical Lecture –

Advances in Imaging of the Fundus: Implications to Basic Understanding and to Diagnosis and Treatment of Disease

This session will focus on recent advances in imaging in the retina both in the living eye and in ocular tissues. These techniques are advancing rapidly and will shortly revolutionize our understanding of the development of the eye and of disease mechanisms. Ultimately they will lead to new diagnostic and treatment techniques. ■

2006 ARVO

Building International Collaborations

ARVO is truly an international organization with 42 percent of members and 39 percent of Annual Meeting attendees from outside the U.S. The success of ARVO and its membership relies on effective sharing of information and resources, communication, and collaboration across the globe.

The theme of the 2006 ARVO Annual Meeting, Building International Collaborations, will focus on providing attendees with examples of existing multi-country collaborative research efforts and strategies for building similar collaborations in the future through scientific presentations, workshops, and other programs and events.

ARVO encourages the submission of abstracts to the 2006 Annual Meeting that include research conducted in more than one country. These abstracts will be identified in the program to highlight the many international collaborations already underway.

In an effort to continue building collaborations between U.S. and Latin American eye and vision researchers, ARVO will co-sponsor the Pan-American Association of

Ophthalmology (PAAO) pre-ARVO program on Saturday, April 29, 2006.

“Strategies for Research Grants for International Members: Opportunities in NIH,” a workshop sponsored by the ARVO International Members Committee, will introduce strategies to international ARVO members to obtain research grant funding for vision research. NIH grants are attainable for researchers outside the U.S., but specific issues for non-U.S. applications need to be addressed to be successful.

The European Association for Eye and Vision Research (EVER) and ARVO will co-sponsor a symposium, “Successfully Conducting International Research in Europe and the USA.” Topics and speakers include: Identifying Potential Research areas in Europe, Martine Jager; Finding the Appropriate Research and/or Training Center in Europe, Ivan Haefliger; Funding a Research Period in a European Lab, Per Söderberg; and Regulatory Barriers and Cultural Peculiarities in Europe, Pinar Aydin.

Join your colleagues from around the world and plan to build new connections across the globe. ■

Housing – Reserve NOW!

All 2006 Housing Reservation Forms received at the Housing Desk during the 2005 Annual Meeting have been processed and confirmations have been sent. If you have not received a confirmation for your 2006 reservation, contact the Housing Bureau via e-mail at gflhousing@broward.org or fax (954) 765-4414 or 4197 for assistance.

If you have not already made a hotel reservation for 2006, logon to www.arvo.org/AM and click on Housing & Travel. Don't wait – the best hotels fill quickly! **More than 40 percent of all available rooms have already been reserved.** Most of the hotels listed in the 2006 ARVO Housing block will participate in the free Shuttle Bus Service – leave the driving (and parking) to us! ■

Don't Miss The Exhibits

Be sure to visit exhibitors Sunday, April 30 through Wednesday, May 3, from 9:00 AM to 4:00 PM daily. See the latest products and services that will help you in your research and/or clinical work. ■



ANNUAL MEETING

ARVO / Alcon Keynote Session

Two distinguished speakers will present keynote addresses at the ARVO/Alcon Keynote Session, Sunday, April 30, 2006, to present their experiences and efforts to expand international collaborations in eye and vision research.



Paul Sieving, MD, Director of the National Eye Institute (NEI), will present the efforts underway at the NEI and the Fogarty Center at the

National Institutes of Health to expand the international research portfolio.



Gullapali N. Rao, MD, President of the International Agency for the Prevention of Blindness and Chairman of the Board for the L V Prasad Eye

Institute, will discuss his experiences and efforts from a non-U.S. perspective. ■

The ARVO/Alcon Keynote Session is sponsored by The ARVO Foundation for Eye Research through a generous donation from Alcon.



Minisymposia

- AP Eye Shape and Peripheral Refraction in Emmetropization and the Development of Myopia
- BI Complex Genetics
- CL Race and Science: Disparities, Differences, and Detractors
- CO Advances in Anterior Segment Imaging
- EY Genetics of Eye Movement Disorders
- GL Ocular Drug Delivery for Glaucoma: Old Ideas and New Technologies for Intraocular Drug Delivery
- IM Allergic Eye Disease In a Blink (jointly organized with the American Academy of Allergy, Asthma and Immunology)
- LE From Outside In: The Cytoskeleton as Signal
- PH Preconditioning: Endogenous Mechanisms of Ocular Protection
- RC The Challenge of Understanding Diabetic Retinopathy: A Synthesis of Perspectives
- RE Current Therapies for Retinal Vascular Occlusion
- RE Advances in the Anti-Microbial Treatment of Endophthalmitis
- VI The Representation and Visual Consequences of Blur
- VN Color Vision in Primates: New Ideas about Spectral Coding and Processing

TENTH ANNUAL VISION RESEARCH CONFERENCE

R H O D O P S I N

ADVANCES AND PERSPECTIVES

April 28–29, 2006 • Fort Lauderdale, FL, USA

A TWO-DAY SATELLITE PRIOR TO THE 2006 MEETING OF ARVO

Session chairs:

Paul Hargrave, USA
Klaus Peter Hofmann, Germany
Kevin Ridge, USA
Heidi Hamm, USA
Dan Oprian, USA
Gerald Jacobs, USA
Dusanka Deretic, USA
Wolfgang Baehr, USA

Join experimental and theoretical biophysicists, molecular and cellular biologists, and clinician scientists from around the world for a comprehensive look at recent advances in rhodopsin research and expose unsolved problems and unanswered questions.

Poster Abstract Deadline:
February 3, 2006

The Tenth Annual
VISION RESEARCH
Conference is sponsored and
hosted by Elsevier / Vision Research



Co-sponsored by



For full details and abstract submission visit:

www.visionresearch-conference.elsevier.com



Plan Now to Attend!

ARVO Social
Sunday, April 30, 7:30 PM

ARVO Rocks!
Tuesday, May 2, 8:00 PM

ARVO Classical Concert
Wednesday, May 3, 8:00 PM

Committee-Sponsored Workshops



Stem Cell Chimeras: Implications for Vision Research

Chimeras are the result of the mingling of interspecies tissues. Many believe that chimeric animal models may provide the answers to complex questions relating to cellular differentiation and communication. Investigate this evolving technology and its potential applications, as well as the ethical and moral dilemmas of stem cell research and the creation of stem cell chimeras. *Organized by the Animals in Research Committee.*

Recent Developments in Intellectual Property Law: Impact on Inventors in the Academic World

Certain research activities can be exempt from liability from patent infringement. Recent court decisions have better defined what activities are exempt and what activities are not. Specific examples will also be discussed. *Organized by the Commercial Relationships Committee.*

A World of Good: Inclusion of Minorities as Research Subjects at Home and Abroad

This topic raises many questions and ethical concerns. How can this research lead to a reduction in health disparities? How can we best examine and address the significant gaps in the knowledge about minority health? How can we ensure that participation in research will translate into tangible benefits for minority communities? These and other questions will be addressed by a panel of ARVO experts in the field. *Organized by the Diversity Issues Committee and Ethics Committee.*

Ethical and Regulatory Issues in Stem Cell Research

Learn the practical aspects of using stem cells in vision research, including mechanisms for working with non-

approved human embryonic stem (ES) cell lines; political activism by scientists doing human ES work; collaborations with scientists in countries with different regulations; and ethical issues in therapeutic applications and in fundraising. *Organized by the Ethics and Regulations in Human Research Committee.*

Strategies for Obtaining Research Grants for International Members: Opportunities at NIH and Other U.S. Agencies

NIH grants are attainable for researchers outside the U.S., but specific issues for non-U.S. applications need to be addressed in order to be successful. This workshop focuses on problems and solutions for international members seeking research grant funding from NIH. *Organized by the International Members Committee.*

Clinician-Scientist Forum

Career development issues will be discussed by established clinician-scientists through presentation of their research and their careers as models. *Organized by the Members-in-Training Committee.*

Getting a Job in the Private Sector or in Academia

Topics to be addressed include: how to apply for a job; the types of jobs available; and different requirements in the private sector, research institutions, and academia. In addition, this workshop will discuss the training necessary to be competitive in the job market. *Organized by the Members-in-Training Committee.* ■

2006 ARVO ANNUAL MEETING PRELIMINARY SCHEDULE

FRIDAY/SATURDAY	TIME	SUNDAY, APRIL 30	MONDAY, MAY 1	TUESDAY, MAY 2	WEDNESDAY, MAY 3	THURSDAY, MAY 4
Elsevier/ARVO Vision Research Conference April 28-29	8:30 AM	Posters Symposia	Papers & Posters	Papers & Posters	Papers & Posters	Papers & Posters
	10:20 AM	Section Business	Section Business Meetings	General Business Meetings	Meeting	
ARVO/Pfizer Ophthalmics Research Institute April 28-29	10:45 AM					Papers & Posters
	11:00 AM 11:15 AM	Posters Symposia	Papers & Posters	Papers & Posters	Papers & Posters	
ARVO Education Courses April 29 • Complement Factor H • Informatics and Visual Science • Research Advances in Ocular Oncology: Focus on Translational Applications	1:00 PM	SIGs/Workshops				Papers & Posters
	1:15 PM		SIGs/Workshops	SIGs/Workshops	SIGs/Workshops	
	2:30 PM	Posters Basic/Clinical Lecture				
	2:45 PM					ALL POSTERS
	3:00 PM		Papers & Posters	Papers & Posters	Papers & Posters	
	4:15 PM	ALL POSTERS				
	4:45 PM		ALL POSTERS	ALL POSTERS	ALL POSTERS	
	5:15 PM	ARVO/Alcon Keynote Session				
	5:30 PM		Awards Lectures	Awards Lectures		
	7:30 PM	ARVO Social Everyone invited!	MIT Social			
8:00 PM			ARVO Rocks!	ARVO Classical Concert		

A N N U A L M E E T I N G

2006 Abstract Submissions

Top 10 Tips for First Authors

1. **Pay Member Dues Early.** Only ARVO members paid through 2006 can be a First Author on an abstract. Become an ARVO member or renew online at www.arvo.org by November 21, 2005.
2. **Update Member Information.** Update your membership record at www.arvo.org before submitting your abstract. The information in your membership record will automatically transfer to your abstract.
3. **Read the Abstract Submission Information.** Read the printed *Call for Abstracts* or logon to www.arvo.org to read the Abstract Submission Guidelines.
4. **Don't Wait Until December 2 to Submit.** The online abstract submission site opens October 15, 2005 at www.arvo.org and closes December 2, 2005 at 11:59 PM EST.
5. **Do Not Change Your Member Section Affiliation.** The Section reviewing your abstract is automatically determined by the Reviewing Code you choose.
6. **Check the E-mail Address in the Abstract.** The abstract acceptance notification will be sent to the e-mail address listed on your abstract submission.
7. **Provide Disclosure for Commercial Relationships.** Review disclosure codes and get co-authors' disclosures prior to submitting to ensure Board of Trustees-mandated compliance. Read the ARVO Commercial Relationships Policy in the *Call for Abstracts* or at www.arvo.org.
8. **Apply for a Travel Grant or Award.** Information is available in the printed *Call for Abstracts* or online at www.arvo.org.
9. **Review and Revise Your Abstract Before December 2.** Take the time to review your abstract carefully. You may revise an abstract until December 4, 2005 at 11:59 PM EST, but the abstract must be completed by the December 2 deadline in order to access the site for revision.
10. **Print Your Abstract and Request Submission Confirmation.** Print your abstract and request an e-mail confirmation of your submission. Save these for your records.

If you have questions or need assistance, contact the ARVO Office at (240) 221-2932 or kdixon@arvo.org. ■

Important Dates

2005

- September 1 **START DATE** 2006 membership dues renewal online
- September 15 2006 Annual Meeting early registration online
- October 15 **START DATE** Abstract submission and revision online
- December 2 **DEADLINES** Online abstract submission 11:59 PM EST; ARVO/Alcon Awards application; Travel Grant Awards application
- December 4 **DEADLINE** Online abstract revision 11:59 PM EST

2006

- February 17 Notification of Abstract Acceptance and Travel Grant Awards; 2006 Program Planner and Itinerary Builder online
- March 3 **DEADLINE** ARVO Annual Awards nominations
- March 30 **DEADLINE** Online Housing Reservations
- April 7 **DEADLINE** Early registration rates
- April 21 **DEADLINES** Annual Meeting and course advance registration; Registration cancellation
- April 28 ARVO/Pfizer Ophthalmics Research Institute; Vision Research Conference
- April 29 ARVO Education Courses
- April 30- May 4 2006 ARVO Annual Meeting

ARVO Education Courses

The following courses will be offered Saturday, April 29, 2006:

Informatics and Visual Science

Organized by John Michon, MD

This course will provide attendees with a broad overview of computation and its role in generating knowledge in the basic and clinical visual sciences.

Age-related Macular Degeneration and Complement Factor H

Organized by Frederick Ferris, MD, and Emily Chew, MD

This workshop features lead investigators presenting their data showing the association of age-related macular degeneration with complement factor H (CFH). Experts in the field of CHF, immunology, and genetics will also contribute. A panel discussion will discuss the future of this research. The course will be moderated by NEI Director Paul Sieving, MD, PhD.

Research Advances in Ocular Oncology: Focus on Translational Applications

Organized by Timothy Murray, MD

This course will feature sessions on retinoblastoma, melanoma, and lymphoma.

Separate registration is required, beginning September 15, 2005. For more information logon to www.arvo.org.

The Sarasota Ethos



Gary D. Novack, PhD
PharamLogic
Development, Inc.

The Association for Research in Vision and Ophthalmology (ARVO) met annually in Sarasota, Florida, from 1969 through 1994 (with the exception of one meeting in Orlando). To support the growing membership and annual meeting attendance, ARVO moved its annual meeting to Fort Lauderdale in 1995. I estimate that half of the attendees at the 2005 annual meeting in Fort Lauderdale experienced an annual meeting in Sarasota. Newer members of ARVO might frequently hear some of us more “mature” members saying “I miss Sarasota,” or “That’s not the way it was in Sarasota.” I understand that with the size of our annual meetings, a return to Sarasota is not possible. However, I think it is important for the entire ARVO membership to consider what made the Sarasota meeting so worthwhile, and infuse those principles into our current meeting to further improve its quality.

Following are key quality principles in force in Sarasota and how I suggest we apply them today:

#1 ARVO is for unpublished research: Submit your work to a journal AFTER you submit to ARVO. At a minimum, time any full publication so that it is published in June or later. Also, as cautioned by the editor of *IOVS*, do not succumb to double publication. Publication of detailed data in a “tabloid” counts as a publication.¹

#2 ARVO is for younger scientists to gain experience in scientific presentation: Use opportunities to have fellows and students take a key role in the presentation. However,

senior authors should be present at the poster or presentation to provide guidance or clarification to younger scientists. This is especially important for researchers for whom English is not a mother tongue.

#3 ARVO is for scientific interaction and collaboration: The primary reason to present at ARVO is so that our peers can comment on our work. Attend your presentation (See #2), and be open to comments. In the same way that reviewers tend to improve the quality of a manuscript, so will our colleagues help to consider an issue which we may have overlooked in our work.

#4 ARVO is for intimate scientific discussions: Be open to the one-to-one discussions that occur in the hallway, on the shuttle bus, or while waiting in line at the food service. Consider putting away the cell phone and the MP3 player.

#5 ARVO is for camaraderie: ARVO members are everywhere in Fort Lauderdale. When you are waiting for that table at the restaurant, or at the hotel, introduce yourself to your fellow ARVO members. You never know who

you will meet, and what you might talk about.

My intent is to improve the quality of one of the most important meetings of the year for many of us. It is very unlikely that ARVO will ever “go back to Sarasota.” However, with all of our efforts, we can continue to improve the quality of the ARVO annual meeting, so that we all can experience the “Sarasota ethos,” no matter where the annual meeting occurs. ■

¹ Frank RN. IOVS Statement on “Double Publication”. Invest Ophthalmol Vis Sci 2005;46:1549-50.

If you would like to comment on this article, please e-mail newscomments@arvo.org. Comments may be posted on the ARVO Web site Publications section.



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Visual Development, 2/e

By: **Nigel Daw, Professor of Ophthalmology & Visual Science and Neurobiology, Yale School of Medicine**

This book succinctly covers: development of the visual system; effects of visual deprivation; mechanisms by which visual deprivation produces its effects; and fundamental questions that need to be answered.

Praise for the first edition:

“...an outstanding book that provides a much-needed summary and synthesis of the impressive recent advances in the experimental study of disorders of visual development.”

American Orthoptic Journal

“...well organized, informative, easy to read, and enjoyable.”

American Journal of Ophthalmology

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ARVO EDUCATION PROGRAM

Past Events

US-Indo Workshops on Collaborative Research



ARVO conducted two US-Indo Workshops, February 2005 in India, and April 2005 in Fort Lauderdale, Florida, funded through a cooperative agreement with the National Eye Institute. The workshop in India was held in Hyderabad where 48 Indian and U.S. researchers met to discuss potential collaborations. The workshop was followed by site visits to the Aravind Eye Hospital in Madurai and the Sankara Nethralaya Institute in Chennai. Attendees reconvened in Fort Lauderdale, Florida, to report progress on plans initiated in India and plan next steps for implementing collaborative research efforts. An article will be published in *IOVS* reporting the outcomes of the workshops.

SERI-ARVO



The Second SERI-ARVO Meeting was held February 16-20, 2005 in Singapore. More than 700 people from 36 countries were in attendance. ARVO sponsored a symposium, "Hot Topics in Eye and Vision Research," presented by a scientific delegation from ARVO, led by Gary W. Abrams, MD, Immediate Past-President of ARVO. Plans are underway for the next meeting in February 2007 under a new name – Asia-ARVO (see Upcoming ARVO Events). ■

Upcoming ARVO Events

2005

ARVO is pleased to announce the inaugural ARVO Summer Eye Research Conference, "Ocular Cell and Molecular Biology (OCMB)," to be held September 8-10, 2005, in Sarasota, Florida, at the Colony Resort, right on the beach. The program is now available at www.arvo.org/ocmb.



The ARVO Western Eye Research Conference (WERC) will be held September 25-28, 2005, in Laguna Beach, California, returning to the Surf and Sand Resort. The conference topic is **Regenerative Ocular Biology: Restoring Vision in the Aged and Diseased Eye**. Logon to www.arvo.org/werc for program details.

2006

The second annual ARVO/Pfizer Ophthalmics Research Institute is scheduled for April 28-29, 2006 in Fort Lauderdale,

Florida. The conference will address the topic "Aqueous Humor Outflow: What Do We Know, Where Will It Lead Us?" See the ARVO Foundation for Eye Research insert in this newsletter for more information.



Plans are underway for the 2006 ARVO Summer Eye Research Conferences. "Toward the Prevention of Age-related Macular Degeneration," will be held July 9-12, 2006, at the Sanibel Harbour Resort & Spa in Fort Myers, Florida. If you would like to propose a topic for an ARVO Summer Eye Research Conference, contact Ellyn Terry, Director of Meetings and Education, at eterry@arvo.org.

2007

The SERI-ARVO Meeting has changed its



name to Asia-ARVO. The inaugural Asia-ARVO Meeting will be held in Singapore in February 2007 and will be hosted again by the Singapore Eye Research Institute (SERI). ■

ARVO Cosponsors Upcoming Symposia

ARVO continues to collaborate with other societies and cosponsor symposia and/or exhibit at other meetings, including:

- Turkish Ophthalmological Society, September 17-21, 2005, Antalya, Turkey. *Finding the Appropriate Research Lab in the U.S.* will be presented September 20.
- European Association for Vision and Eye Research (EVER), October 5-8, 2005, Vilamoura, Portugal. *Successfully Conducting International Research* will be presented October 8, 8:30 AM - 10:00 AM. Visit ARVO's Booth.
- American Academy of Ophthalmology, October 15-18, 2005, Chicago, Illinois. *New Treatments for Ocular Neovascularization and Excessive Vascular Permeability* will be presented October 18, 8:30 AM - 10:00 AM. Visit ARVO at Booth 713.
- Society for Neuroscience 35th Annual Meeting, November 12-16, 2005, Washington, D.C. Visit ARVO at Booth 932.
- American Society for Cell Biology Annual Meeting, December 8-11, 2005, San Diego, California. Visit ARVO at Booth 1638.
- American Academy of Optometry, December 9-11, 2005, San Diego, California. *Navigating in the 21st Century: Getting From Laboratory to Patient Care* will be presented December 9, 1:30 PM - 5:30 PM. Visit ARVO at Booth 322.
- World Ophthalmology Congress, February 19-24, 2006, Sao Paulo, Brazil. *Technology in Ophthalmology: New Treatment Strategies and Progress in Gene Therapy*.

Watch for official announcements for all of these programs on the ARVO Web site and in ARVO e-mail blasts. ■

Membership Card Included with Renewal Notice

ARVO's new Web site has been revised to require that members login to access the Member Directory and to conduct transactions with the Association.

- Your personalized membership card with your ARVO member number is included with your 2006 renewal notice.
- Remove the card and keep it in a safe place.
- Cards will not be issued annually since your member number will not change.

The first time you login, your member number will serve as your login and password. You will then be required to create your own password for future secure access. Please change your password now at www.arvo.org, to ensure access to your personal information is secure. If you have any problems or questions, please contact Member Services at (240) 221-2900 or mem@arvo.org. ■



New Online Community for Members-in-Training

The ARVO Members-in-Training (MIT) Committee has established an Online Community as a resource for students, residents, and fellows at various stages of their education and training. The Online Community is intended to serve as a platform for scientific exchange and a clearing-house for information, opportunities, resources, and programs. The site includes an Electronic Forum (list serv) to

post questions and share experiences; a Community Calendar; and a Links Library. Sign up today for this free resource for ARVO Members-in-Training! Logon to www.arvo.org/mit. For more information, contact TJ Rainsford, Director of Technology and Web Services, at tjrainsford@arvo.org. ■

Career Paths for Development as Clinician Scientists at the Wilmer Eye Institute



The Wilmer Eye Institute has training opportunities for individuals wishing to develop a career as a clinician scientist in vision research. The Maumenee Scholar Program provides entry to a National Eye Institute-sponsored K12 training program, as well as individual K08 and K23 programs with support for training in patient-oriented or laboratory research. The program is open to third year residents in ophthalmology, graduate optometrists, those who have completed clinical post-residency fellowships graduates, or junior faculty. The program provides 80% protected time devoted to learning the specific approaches to research with a mentor or mentor group (e.g. in molecular biology, epidemiology, or bioengineering), while continuing clinical practice as a junior faculty member. Training is supported for from 3-5 years. The later years of training are focused on the development of an application for federal research funding. Salary is equivalent to that of an Assistant Professor in the subspecialty area chosen. Those participating in the program have moved to full-time faculty positions in Departments of Ophthalmology throughout the U.S. Candidates must be U.S. citizens or permanent residents. For more information go to www.wilmer.jhu.edu (select research, then training) and view the clinician scientist training program at Johns Hopkins. To request information/ application procedures please contact Pat Tracey, Administrative Assistant to Dr. Harry Quigley, The Johns Hopkins Hospital, Wilmer 122, 600 N. Wolfe Street, Baltimore, Maryland 21287-9019, telephone: (410) 955-2777 or by email address: ptracey@jhmi.edu.

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In Memoriam

Jon R. Polansky, MD
San Francisco, Calif.

Maurice Rabb, MD
Chicago, Ill.

Steven T. Schuschereba, PhD
Brooks AFB, Texas

Michael E. Yablonski, MD, PhD
Johnson City, NY

Submit notifications to
mem@arvo.org.

E-Newsletter Launch Set for October

ARVO will begin transmitting an e-newsletter to all ARVO members beginning in October. It will be distributed 10 times a year during the months ARVO*News* is not published (all months except September and January).



“Our new e-newsletter will help ensure that our members have the most up-to-date information about ARVO delivered right to their desktop,” says Executive Director, Joanne G. Angle.

E-newsletter topics will include the latest information on the upcoming Annual Meeting, new grant opportunities, and important news on ARVO events and activities.

To ensure you receive this timely and informative communication, please check that the e-mail listed for you in the Member Directory is correct. ■

ARVO Member News

Let us know of your accomplishments! Forward announcements about achievements, appointments, and awards to mem@arvo.org for the Members-in-the-News Web page. ■

Ready for Your Next Career Move?

ARVOJobs

Job Seekers!

- Post your CV for free on ARVOJobs at <http://jobs.arvo.org>. Indicate your job preferences and sign up to get automatic e-mails whenever a position matching your criteria is posted.
- Post your information anonymously.
- Check the site frequently to view the latest job postings.

Employers!

- Over 90 applications were submitted to employers through ARVOJobs in the past three months.
- Find the most qualified candidates for your positions.
- Only registered employers can review the Job Seekers criteria and CV's, so take advantage of this resource today!
- Get the best return for your money.
- Post your positions today at <http://jobs.arvo.org>. ■

A Growing ARVO

2005 has been another record-setting year for ARVO's membership!

Total Membership

11,379	(2% increase over 2004)
U.S.	6,559 58%
Non-U.S.	4,820 42%

Countries Represented 70

World Regions

North America	61%
Western Europe	20%
Pacific Rim/Asia	15%
South/Central America	2%
Africa	<1%
Eastern Europe	<1%
Middle East	<1%

Demographic Data

Average age of members: 43 years old
Average regular membership: 11 years

ARVO Launches New Web Site

ARVO's new Web site is full of new features to expedite updating your information and transacting business with the Association. These changes are designed to improve member interactions and access to information. Among the many new features of the site are:

- Improved site navigation
- Easier dues renewal processing
- Password-protected access to the Member Directory
- Secure editing of your information
- Members-only information resources
- Improved abstract submission access
- Online communities for ARVO groups

If you have suggestions on features you would like to see, please contact TJ Rainsford, ARVO Director of Technology and Web Services, at tjrainsford@arvo.org. ■

ARVO Members By Section

AP	402	4%
BI	715	6%
CL	677	6%
CO	1,558	14%
EY	467	4%
GL	1,517	13%
IM	562	5%
LE	490	4%
PH	375	3%
RC	873	8%
RE	2,601	23%
VI	561	5%
VN	498	4%
No Info.	83	1%

TOTAL 11,379



NIH Reauthorization Expected To Be Major Issue in September

When Congress returns after the Labor Day recess, the House Energy and Commerce Committee is expected to introduce legislation to reauthorize the National Institutes of Health (NIH), which has not been reauthorized since 1993. Prior to its August recess on July 12, the Committee released a “Discussion Draft” of legislation, which would

greatly expand the authority of the NIH Director and authorize only four line item budgets for the NIH: the Office of the Director; a new Division of Program Coordination; Planning and Strategic Initiatives; a cluster of 15 mission-specific Institutes (including the National Eye Institute); and a cluster of nine science-enabling Institutes/Centers – as opposed to the current 27-line item budget.

On July 19, the Committee held a hearing on the draft, and both Republicans and Democratic members

expressed concerns about the extensive nature of the changes proposed, including the elimination of line item budgets for individual Institutes. This

NAEVR has maintained that Congressional review of individual Institute line item budgets provides an important “check and balance” to the proposed extensively revised internal NIH budget-development process driven by the NIH Director.

has been a major concern of the eye and vision research community, as presented in two sets of comments submitted to the Committee by the National Alliance for Eye and Vision Research (NAEVR), which were developed with an ARVO NIH Working Group. NAEVR has maintained that Congressional review of individual Institute line item budgets provides an important “check and balance” to the proposed extensively revised internal

NIH budget-development process driven by the NIH Director.

At

this time, the draft is the subject of negotiations between Republican and Democratic leaders on various aspects in addition to line item budgets, such as how to establish a “common fund” for trans-NIH collaborative projects and any increase to the current

one percent cap in the NIH Director’s authority to transfer funds from an Institute. NAEVR and ARVO will review the revised draft, develop appropriate comments and inform the eye and vision research community about the timing and content of messages to send to the Committee, specifically, or Congress, generally, through the NAEVR Web site at www.eyeresearch.org. ■

ARVO Members Assist NAEVR with Request for DOD Funding for Vision Research

NAEVR has formally requested that “Eye and Vision Research” be added to research eligible for peer-reviewed funding within the Congressionally directed Medical Research Program (CDMRP) within the FY2006 Department of Defense (DOD) spending bill. In FY2005, for example, the CDMRP program had \$50 million of funding, and included research in autism, epilepsy and osteoporosis.

Since the addition of new research categories to the CDMRP program is usually not finalized until the conference process between the House and Senate bills, a final determination is not expected until after Labor Day. The practical implication of this addition will be the opportunity for defense-related vision researchers to submit competing grants for funding. With greater experience with this process, institutions may then be able to seek direct earmarks from Congress in future DOD spending bills.

A working group of ARVO members was pivotal to the development of a funding justification document, which

cites three major areas of vision research most applicable to defense applications: visual acuity, eye trauma and infection, and vision health disparities. NAEVR’s case was strengthened by a Senate Committee on Veterans Affairs finding that 15 percent of current wartime injuries relate to the eye, with optic nerve trauma being the gravest condition.

ARVO Board member Robert Barlow, PhD, and John Hoepner, MD, of Syracuse College of Medicine/SUNY Upstate, have advocated for NAEVR’s position with their representative, Congressman James Walsh (R-NY), chair of the House Military Quality of Life and Veterans Affairs Appropriations Subcommittee. Christopher Girkin, MD, of the University of Alabama at Birmingham, has advocated with Senator Richard Shelby (R-AL), a member of the Senate Defense Appropriations Subcommittee.

NAEVR will apprise ARVO members of potential opportunities should NAEVR’s request be successful. ■

Immediate Past President Testifies in Support of Increased Eye Research Spending

ARVO Immediate Past-President **Gary Abrams, MD**, testified at the House Labor, Health and Human Services and Education Appropriations Subcommittee's "Public Witness" hearing on April 14, 2005, in support of increased funding in the federal Fiscal Year FY2006 budget for the National Eye Institute (NEI). On behalf of ARVO, Dr. Abrams requested FY2006 NEI funding at \$711 million and NIH funding at \$30 billion, a six percent increase over FY2005 for each. The President's FY2006 budget proposes NEI and NIH funding increases at less than one percent over FY2005.

"NEI research into the fundamental causes of eye disease is more critical now than ever as vision impairment and eye disease is a major public health

problem growing larger due to an aging population, minority populations disproportionately affected by eye disease, and co-morbidities of disease, such as diabetic retinopathy," said Abrams. "Age-related eye diseases currently affect more than 35 million Americans age 40 and older, and the annual economic burden to the United States is now \$68 billion for healthcare costs and lost productivity, which does not even begin to quantify societal costs associated with lost independence and a diminished quality of life."

Abrams added that vision research is on the cutting edge of scientific discovery. "As the entire medical research community gains a better understanding of the basis of disease, the eye emerges as a unique biological system

in which to conduct genetic, neuroscience and cellular mechanism research. Just last month, NEI-sponsored researchers announced the discovery of a gene strongly associated with a person's risk of developing age-related macular degeneration, the leading cause of vision loss in older Americans." He noted that this could lead to early diagnosis and treatment for the disease.

Abrams concluded by emphasizing that the requested FY2006 funding increases for NEI and NIH will "maintain the momentum of medical research discovery and help to ensure the health, and vision health, of all Americans." ■

Senate Spending Bill Includes \$1 Billion Increase for NIH; \$24 Million for NEI

On July 14, the full Senate Appropriations Committee unanimously approved an FY2006 Labor, Health and Human Services, and Education (LHHS) spending bill that includes a \$1.05 billion increase over FY2005 (or 3.7 percent) for the National Institutes of Health (NIH), for a total of \$29.4 billion. The bill also calls for a \$24 million increase for the National Eye Institute (NEI), also a 3.7 percent increase, for a total of \$693.6 million (see funding chart for details). The Committee sent the bill to the Senate floor for action, which is not expected until after Labor Day. In drafting the bill, the Senate LHHS Appropriations Subcommittee proposes to fund the increase in NIH and other programs by moving the last Supplemental Security Income (SSI) payment of FY2006 into FY2007. NAEVR President Stephen Ryan, MD, wrote to Senate LHHS Appropriations Subcommittee chair Arlen Specter (R-PA) and Ranking Member Tom Harkin (D-IA) commending them for their leadership and dedication to the health - and vision health - of all Americans through this funding increase.

NAEVR had requested FY2006 funding for the NIH and NEI at \$30 billion and \$711 million, respectively.

Assuming that the Senate bill is passed, it is likely to find opposition from the House in conference, as the House-passed bill (HR3010) maintained the funding levels in the President's FY2006 budget request, which are significantly lower than that

in the Senate bill. The House conferees may also challenge the Senate's underlying funding mechanism of moving the SSI payment.

Prior to the passage of the House bill, both ARVO and NAEVR represented the eye and vision research community in public witness testimony before the House LHHS Subcommittee, chaired by Congressman Ralph Regula (R-OH). On April 14, then-ARVO President Gary Abrams, MD, testified on the recent breakthroughs from NEI-sponsored research and noted that "vision research is on the cutting edge of scientific discovery." On April 21, Dr. Ryan testified, focusing on the impact of eye disease and requesting that Congress "make this nation's vision health a top priority." Both also made extensive Capitol Hill visits with appropriators in the House and Senate. ■



Dr. Ryan (left) testifies, then joins NAEVR Legislative Counsel John Porter (right) in meeting with Congressman Ralph Regula (R-OH).



Dr. Abrams testifies, then meets with Lisa Layman in the office of Senator Debbie Stabenow (D-MI).

	FY2005 ACTUAL	FY2006 HOUSE	FY2006 SENATE
NEI	\$669 M +2.5%	\$673.5 M +0.7%	\$693.6 M +3.7%
NIH	\$28.4 B +2%	\$28.5 B +0.5%	\$29.4 B +3.7%

Embryonic Stem Cell Legislation Boggled Down in Senate After Passing in House

At press time, the Senate was negotiating the timing and format of a vote on S471, the “Stem Cell Research Enhancement Act of 2005.” This bill is the Senate version of HR810, which passed the House 238-194 with strong bipartisan support in late May. ARVO members sent hundreds of letters of support through NAEVR’s Web site www.eyere-search.org for HR810, which would expand the number of embryonic stem cell lines available for federal funding beyond those specified in the Administration’s August 2001 policy.

S471 was introduced by Senators Arlen Specter and Tom Harkin and has bipartisan support from more than 40 senators. Complicating a “clean” vote on the bill is the introduc-

tion of at least six other bills related to various aspects of stem cell research that could siphon away support. President Bush has vowed to veto the S471/HR810 legislation.

On July 29, Senate Majority Leader Bill Frist, MD (R-TN) announced his support for expansion of the embryonic stem cell policy, which could accelerate Senate action after Labor Day. NAEVR President Stephen Ryan, MD, commended Dr. Frist for “having spoken so articulately on this important issue, especially with your most impressive credentials in medicine, in addition to your leadership of the Senate.” Dr. Ryan also wrote to S471 cosponsors Specter and Harkin pledging the eye and vision research community’s support for the bill. ■

AEVR Features NEI-Funded Research to Improve Glaucoma Detection Techniques

At an April 21 Congressional Briefing sponsored by the Alliance for Eye and Vision Research (AEVR), ARVO member and NEI-funded researcher Christopher Girkin, MD, University of Alabama at Birmingham UAB, announced that a five-year research study into the physiology of the optic nerve in African-Americans is producing better techniques to detect glaucoma, which will impact current and future screening programs and subsequent treatment strategies. The NEI-sponsored *African Americans with Glaucoma Study* is proving that “improved detection techniques can determine at-risk characteristics of the optic nerve and better define the progressive changes that occur in the disease. Earlier detection results not only in earlier diagnosis, but will also have an impact on the clinical practice patterns in treatment of the disease,” said Dr. Girkin.

UAB colleague Cassandra Page spoke about the importance of outreach to African-American churches in the Birmingham area to recruit study participants, as prior research into physiological differences in the optic nerve have not been conducted in as large of a study population.

Congressman Artur Davis (D-AL) who represents UAB’s district and is a member of the Congressional Black Caucus, provided an introduction to the event and emphasized the importance of Congressional support for medical research generally, and that into health disparities, specifically. “You spend money on what you value, and our nation needs to invest in the health of all of its citizens,” said Congressman Davis. AEVR Executive Director James Jorkasky concluded by noting NEI’s leadership on health disparities research in relation to vision, citing studies NEI has cosponsored with the National Center for Minority Health and Health Disparities (NCMHD).



Dr. Girkin (left) and Ms. Page (right) join Goodloe Sutton of the office of Senator Richard Shelby (R-AL).

This is the second AEVR-sponsored briefing on vision health disparities. In September 2004, AEVR featured results from the NEI/NCMHD-sponsored Los Angeles Latino Eye Study (LALES), presented by principal investigator Rohit Varma, MD, from the Doheny Eye Institute/USC. The briefing was sponsored by the Congressional Hispanic Caucus. ■



Congressman Davis provides a welcome.



NIH Neuroscience Blueprint Initiatives



Paul Sieving, MD, PhD
NEI Director

The NIH Neuroscience Blueprint is a trans-NIH initiative to jointly invest in research tools, resources, and coordinated neuroscience training over the next five years. It is anticipated that pooled funding among the 16 participating NIH Institutes and Centers will invest a total of \$100 million dollars spread over five years for Blueprint activities. The first five Blueprint initiatives were recently announced. Many of these projects offer opportunity to the vision research community.

Course Development in the Neurobiology of Disease

This funding opportunity supports the development and initiation or the significant expansion of courses on the neurobiology of disease for graduate students receiving basic neuroscience training. It is expected that each course will span a breadth of diseases and disorders affecting the nervous system, emphasizing links and common themes across diseases/disorders, and addressing both the pathology of these diseases/disorders and their basic science underpinnings. For more information about neurobiology coursework development, please visit:

<http://grants1.nih.gov/grants/guide/rfa-files/RFA-MH-05-011.html>.

Neuroscience Information Framework

The Society for Neuroscience recently created a listing of more than 90 databases and resource tools for neuroscience. Yet a small survey by the Society found that 92 percent of respondents were aware of fewer than ten such resources. Clearly, there is need for a centralized repository of neuroscience-related resources. The goal of the Neuroscience Information Framework is to provide a publicly

accessible gateway to the full spectrum of neuroscience tools. The inventory will be structured so that users can locate, relate, access, integrate and analyze entities to determine those most relevant to their interests. For more information about this framework, please visit: <http://www.eps.gov/spg/HHS/NIH/NIDA-01/Reference-Number-N01DA-BAA-5-7753/listing.html>.

The Blueprint is also supporting the expansion of several pre-existing programs, described below.

Gene Expression Nervous System Atlas (GENSAT)

GENSAT is an ambitious project to map the expression activity of thousands of genes in the brain and spinal cord. By understanding when and where specific genes are active, we can better understand how these genes contribute to the development and functioning of the nervous system. As part of the GENAT project, scientists are genetically engineering strains of mice that produce visible fluorescent signals wherever and whenever a particular gene is expressed. Blueprint support of GENSAT is enabling the development of an extensive database of gene expression data and the distribution of the mouse strains generated by GENSAT. The feasibility of expanding GENSAT to include analysis of the eye, ear, and pain pathways is also being explored. The GENSAT Web site can be found at: <http://www.gensat.org/index.html>.

Blueprint Microarray Consortium

The services of a consortium of microarray centers, previously available only to grantees of the National Institute of Neurological Disorders and Stroke and the National Institute of Mental Health, are now available to neuroscientists funded by any Institute or Center participating in the Neuroscience Blueprint. The Microarray Consortium offers investigators access to state-of-the-art technologies for gene expression (activity) profiling and SNP genotyping (identifying DNA sequence variations). All of the data generated by the centers is



made publicly available through a Web database. To learn more about the microarray consortium, please visit: <http://arrayconsortium.tgen.org/np2/home.do>.

Pediatric MRI Study of Normal Brain Development

The Pediatric MRI (Magnetic Resonance Imaging) Study of Normal Brain Development is an NIH-supported effort to collect a series of images of the brain throughout normal development. The data collected from this project will enable the study of normal brain development, provide reliable control data for studies of childhood disorders and diseases that affect the brain, and may aid in the development of new diagnostic tools. The Blueprint is supporting the expansion of this study to include additional subjects and data collected using a state-of-the-art variation of MRI called Diffusion Tensor Imaging, or DTI. For more information about this project, please visit: http://www.masimax.com/nida_pm/pediatric/evans.cfm.

These five initiatives represent Neuroscience Blueprint support for 2005. Plans are currently under consideration for 2006. They include the Neuromouse Project, an effort to develop mouse strains for study of genes that contribute to health and disease in the nervous system; Cross-Institute Neuroscience Training Programs; a new inter-institute training initiative that will address unmet needs that are shared by all of the participating Blueprint Institutes and Centers; and Neuroscience Core Grants, which will expand resources by serving laboratories from many NIH Institutes and Centers. To keep abreast of these developments, please visit the Blueprint Web site at: <http://neuroscienceblueprint.nih.gov/>. ■

Access Statistics for Journal of Vision



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

Online journals, such as *Journal of Vision (JOV)*, have an important new way of understanding how their articles are used. Each time a user clicks on a journal page, a record is created and stored in an access log. These logs may be analyzed to determine many interesting aspects of journal usage. At *JOV* (www.journalofvision.org), we have collected logs since our launch in 2001. The most detailed logs are available since November, 2003. The statistics below are derived

from that latter period.

Statistics from access logs typically include such quantities as “hits,” “pageviews,” “sessions,” and “downloads.” Each of these has a definition that depends somewhat on how the log is recorded and how it is analyzed. There are efforts underway to standardize these methods and quantities (<http://projectcounter.org>). But roughly speaking, a hit is any request to the server for any type of file (including HTML pages, images, and other files), a pageview is a request for a displayable page, a session is a series of clicks by one visitor separated by less than a specified time interval (at *JOV*, 30 minutes), and downloads refers primarily to downloads of PDF files (or other non-image, non-HTML files).

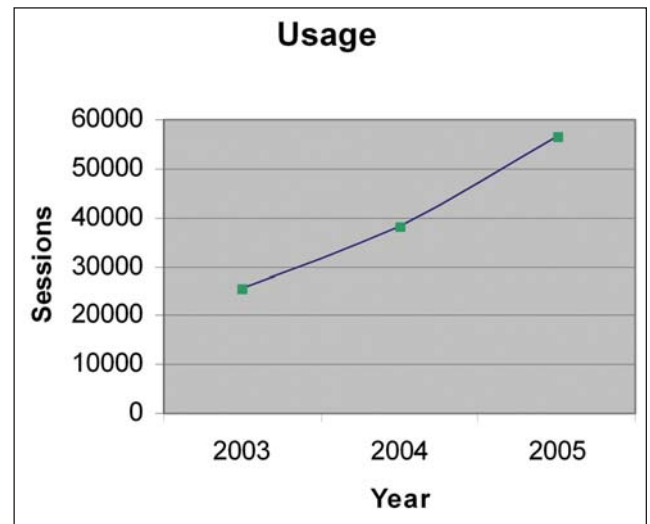
The first question we might ask is: **Is anyone looking?** From November 2003 through June 2005, there have been 27,862,445 hits on the *JOV* site. This amounts to an average of about 1.4 million hits per month. Pageviews, perhaps a more useful measure, amount to about four million over the same interval, or about 200,000 per month. Possibly the most focused measure is sessions, and these totaled 846,621 over the interval, or an average of 42,331 per month, or

1,392 per day. While some *JOV* users may read articles online, many download articles of interest for later study. Downloads, consisting almost entirely of PDF articles, numbered 177,641 over the interval. In summary, it appears that someone is looking!

A second question might be: **What are they reading?** Listed in the table (bottom left) are the top ten downloads over the time interval. The reader (and future author) may draw his or her own conclusions, but these articles typically included excellent science, a catchy title, beautiful graphics, and a clever icon.

A third question is: **Is usage growing?** The average number of sessions per month during 2003, 2004, and 2005 were 25,443, 38,069, and 56,485, respectively (Figure 1). These represent increases of about 50% each year. In May

Figure 1



2005, there were 64,180 sessions, an increase of 150% over the number in November 2003. Clearly usage is increasing at a healthy rate.

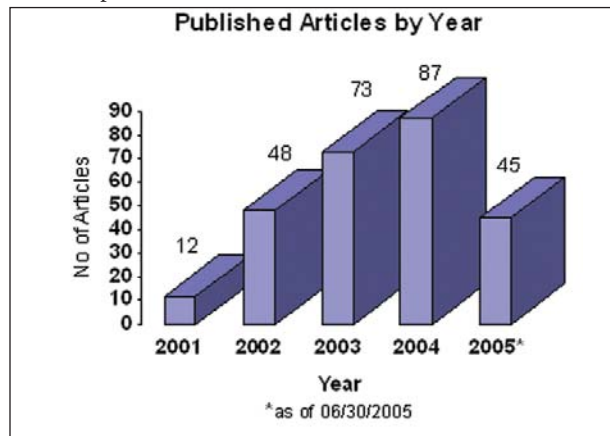
Access log statistics do not replace, but supplement more traditional measures such as citation counts. In 2006 we will have an ISI Impact Factor and Immediacy Index calculated by the ISI based on articles published and cited in 2003 and 2004, since all *JOV* articles are now indexed in *Current Contents* and *Web of Science*. In the future, we hope to create mechanisms at *JOV* that will provide live information regarding usage of the journal and of individual articles. This will provide useful information to both authors and readers and indeed to editors as well. ■

Andrew B. Watson, PhD
Editor-in-Chief, *Journal of Vision*

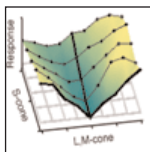
Article	Downloads
Dougherty-2003- http://journalofvision.org/3/10/1/	2,503
Carroll-2001- http://journalofvision.org/1/2/2/	2,321
Troje-2002- http://journalofvision.org/2/5/2/	2,122
Delahunt-2004- http://journalofvision.org/4/2/1/	1,341
Talgar-2004- http://journalofvision.org/4/1/3/	1,287
Fleming-2003- http://journalofvision.org/3/5/3/	1,278
Johnson-2003- http://journalofvision.org/3/7/4/	1,234
Triesch-2003- http://journalofvision.org/3/1/9/	1,190
Nykamp-2002- http://journalofvision.org/2/1/1/	1,148
Artal-2001- http://journalofvision.org/1/1/1/	1,145

It Just Keeps on Growing...

The number of research articles continues to grow annually. We project that the journal will publish over 90 research articles in 2005. ■



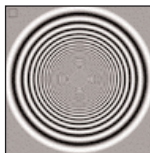
Recent Articles of Interest



Cone signal interactions in direction-selective neurons in the middle temporal visual area (MT)

Barberini et al

<http://journalofvision.org/5/7/1/>



Slow feature analysis yields a rich repertoire of complex cell properties

Berkes and Wiskott

<http://journalofvision.org/5/6/9/>

Call for Reviews, Letters on Special Issue on Finding Visual Features

The deadline for the special issue “Finding visual features: Using stochastic stimuli to discover internal representations” was September 1. However, interested authors are still encouraged to submit reviews, theoretical commentaries or letters to the editor on the topic. If accepted, these

articles will be linked to the published special issue and will be considered part of the ongoing discussion. For more information, contact Editor-in-Chief **Andrew Watson, PhD**, at abwatson@journalofvision.org, or guest editor Jason Gold, PhD, at jgold@indiana.edu. ■

You CAN Have It All

Or at least *JOV* and *IOVS*. *JOV* is free to all and ARVO members may receive both *JOV* and *IOVS*. By logging on to <http://journalofvision.org/info/subscribe.aspx>, members can sign up and receive notification as

articles are published online, or an issue is completed. For more information about *JOV*, please contact aodonnell@arvo.org. See page 21 for more information about *IOVS*. ■

New Call for Papers on Crowding

Submissions are invited, from any field, exploring crowding or crowding-like phenomena to expose the visual computation that recognizes objects. For a complete description, contact information and deadlines go to <http://journalofvision.org/SpecialIssues/crowding.aspx>.

Guest Editors:

Denis E. Pelli, PhD
NYU

Patrick Cavanagh, PhD
Harvard University

Robert Desimone, PhD
MIT

Bosco S. Tjan, PhD
USC

Anne M. Treisman
Princeton University

Reviewer Acknowledgment

The Editor-in-Chief and the Board of Editors would like to thank all the referees who have assisted them with the reviews of submitted manuscripts. Names of all reviewers who have completed a review since January 2005 were published in Issue 6, 2005 of *JOV*. ■

What You Told Us – Readership Survey Results

The results of the Readers' Survey from last year have been analyzed and we'd like to share them with you. With an unprecedented response rate of over 21% and a distribution of $\pm 2\%$ representation of Section membership, we have a broader, clearer picture of what you're looking for in ARVO publications. We also had a 42% response rate for non-U.S. members, reflecting the distribution of membership.

The broad overview is that you consider the quality of both *IOVS* and *JOV* to be very high. *IOVS* and *JOV* were rated as highly valued professional resources by 81% and 40% of respondents, respectively. Over 70% read the print version of *IOVS* only but 63% would read it as frequently if it were published online only but only 13% read and use the online version now. Greater than half of the members have submitted at least one article to *IOVS* in the last three years and 39% have submitted articles to *JOV*.

By a wide margin the electronic submissions and peer-review systems were reported as generally fast operationally with clear instructions. The reviews are considered at least average and mostly good to excellent.

New Features

The majority of respondents indicated that their funding support is received from the NIH or other government grants, which do support publications charges. Almost 40% reported that their institutions support their publishing efforts. There is a strong preference to reduce color charges but there is a difference of opinion on whether publishing color online only is an acceptable solution due to quality concerns.

New electronic features that are of greatest interest include: downloading content to PDAs (Personal Digital Assistants); a complete back issue archive; links to similar articles, Medline, ISI, and InfoTrieve; e-Alerts; and publishing articles online ahead of

print issues. Based on these responses we introduced two new features for *IOVS* in July. You can now **download *IOVS* contents to your PDA** and choose to **receive an RSS (Really Simple Syndication) electronic feed for the current issue** and the three most recent issues. Logon to www.iovs.org now and sign up for these opportunities, as well as e-mail alerts and to read *IOVS* online!

*The broad overview is that you consider the quality of both *IOVS* and *JOV* to be very high.*

The back issue archive is being developed as you read this. By the end of 2006 all issues going back to Volume 1, Issue 1 of *Investigative Ophthalmology* will be available as searchable PDFs. You will be able to access these articles, as you can all articles, from the ARVO home page, through NLM, or by using your favorite search engine.

Content Change Suggestions

What would you like to see more of? Most frequently cited were: Letters (which are published online now) and articles on New Concepts, Emerging Trends, and New Methods. Strong interest was reported in seeing more clinical articles, review articles, and

special topical sections in the journals. *JOV* has several special topical issues each year and *IOVS* will be introducing two new sections, Research Opportunities and Proceedings in the near future. A new Clinical Trials section was introduced in August with publication of the VIP Study Group article.

What Respondents Read

Were there surprises? Of course! Almost 60% of respondents had never read *JOV*! Since this is a rigorously peer-reviewed, online, free access journal, available to everyone through the ARVO Web site, we were surprised. How do you read other journals in the field? It's almost evenly split between reading online and reading print issues for *AJO*, *Archives*, and *Ophthalmology* — a much higher percentage than for *IOVS*.

Thank You

Thanks to respondents for your participation! We will ask for your assistance periodically, but not too often, to assure that ARVO's publishing activities are meeting your needs. ■

ARVO Publishing and Communication Department

Committee Established to Develop Corneal Dystrophy Nomenclature

The inaugural meeting of International Committee on Classification of Corneal Dystrophies (IC³D) will be held on Monday, October 17, at the Hyatt McCormick in Room CC20AB from 5:00 PM to 7:30 PM. (IC³D) has been created to develop a more meaningful corneal dystrophy nomenclatures that will reflect genotypic and phenotypic knowledge and will be accepted by clinicians, geneticists and pathologists globally.

For more information, contact Jayne S. Weiss, MD at jweiss@med.wayne.edu. To attend, e-mail Michael Belin, MD at mwbelin@aol.com and submit your full name; title; sponsoring organization or institution; mailing and e-mail addresses; and phone number.



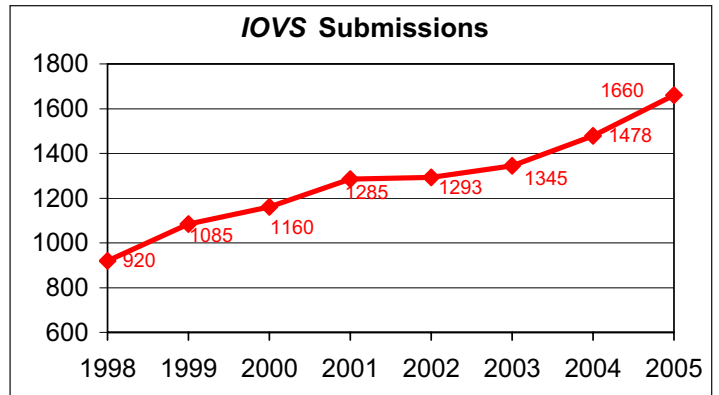
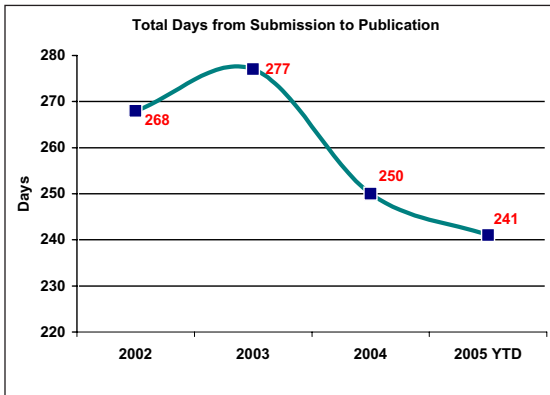
What You Need to Know About IOVS

IOVS Stats

- > 2 million hits on Abstract pages, HTML articles, or PDFs since January 1, 2005
 - > 16,000 unique readers in June 2005
 - > 5,100 “reads” of Top 10 Most Frequently Read Articles in June
 - > 800 articles submitted for review through June
- 239 days (average) from submission to publication – 11 days less than in 2004 and 38 days less than in 2003

It's as Easy as 1, 2, 3, 4 To Activate Your Online Subscription to IOVS!

- Step 1:** Logon to www.iovs.org (or click on Publications then *IOVS* from the ARVO home page: www.arvo.org)
- Step 2:** Click on “Subscriptions”
- Step 3:** Click on “ACTIVATE your Individual Online Subscription (ARVO Member or Non-Member)”
- Step 4:** Enter your ARVO member number and click “Submit”



IOVS 10 Most Frequently Read Articles in June 2005

1. Shamsi FA, Boulton M. Inhibition of RPE Lysosomal and Antioxidant Activity by the Age Pigment Lipofuscin. (Nov. 2001) 42: 3041-3046.
2. Robertson MJ, Erwig LP, Liversidge J, Forrester JV, Rees AJ, Dick AD. Retinal Microenvironment Controls Resident and Infiltrating Macrophage Function during Uveoretinitis. (July 2002) 43: 2250-2257.
3. Lerman S, Megaw JM, Moran MN. NMR analyses of the cold cataract. III. 13C acrylamide studies. (Oct. 1985) 26: 1349-1353.
4. Nagai N, Noda K, Urano T, et al. Selective Suppression of Pathologic, but Not Physiologic, Retinal Neovascularization by Blocking the Angiotensin II Type 1 Receptor. (March 2005) 46: 1078-1084.
5. Awasthi N, Wagner BJ. Upregulation of Heat Shock Protein Expression by Proteasome Inhibition: An Antiapoptotic Mechanism in the Lens. (June 2005) 46: 2082-2091.
6. Eskin TA, Lapham LW, Maurissen JP, Merigan WH. Acrylamide effects on the macaque visual system. II. Retinogeniculate morphology. (March 1985) 26: 317-329.
7. Anderson AJ, Johnson CA, Fingeret M, et al. Characteristics of the Normative Database for the Humphrey Matrix Perimeter. (April 2005) 46: 1540-1548.
8. Carvalho LA. Accuracy of Zernike Polynomials in Characterizing Optical Aberrations and the Corneal Surface of the Eye. (June 2005) 46: 1915-1926.
9. Ota T, Murata H, Sugimoto E-I, Aihara M, Araie M. Selective Upregulation of the A3 Adenosine Receptor in Eyes with Pseudoexfoliation Syndrome and Glaucoma. (June 2005) 46: 2023-2034.
10. Ota T, Murata H, Sugimoto E-I, Aihara M, Araie M. Prostaglandin Analogues and Mouse Intraocular Pressure: Effects of Tafluprost, Latanoprost, Travoprost, and Unoprostone, Considering 24-Hour Variation. (June 2005) 46: 2006-2011.

Sign up TODAY for Electronic Tables of Contents (e-TOCs) and Citation Alerts!

- Step 1:** Logon to www.iovs.org
- Step 2:** Click on “Customized Alerts” on the left navigation bar
- Step 3:** Click on the “Sign up now” link to register
- Step 4:** Sign up using either your e-mail address and click “Subscribe”
- Step 5:** Then, click “Edit Settings” to define your Alerts and set your citation alert requirements (author, key words) across all 869 journals hosted at HighWire Press

AWARDS AND GRANTS

ARVO 2005-2006 Research Fellowship Grants

The ARVO Research Fellowship Grant Program is made possible with the support of Alcon Laboratories, Novartis Ophthalmics and the Japan National Society for the Prevention of Blindness. Grant recipients have applied for the Fight for Sight Awards. ARVO conducts the scientific review for these awards annually. The 2005-2006 recipients are shown below.



Novartis Pharmaceuticals Corporation
Yadunanda Kumar Budigi, PhD
Duke University Medical Center



Alcon Laboratories, Inc. Research Grant
Nirbhai Singh, PhD
Medical College of Georgia



Japan National Society for the Prevention of Blindness
Tetsukji Yamashita
St. Jude Children's Research Hospital

ARVO/Alcon Awards Established

The first ARVO/Alcon Early Career Clinician-Scientist Research Awards will be presented at the 2006 ARVO Annual Meeting. Designed to recognize the importance of clinician-scientists in the ophthalmic research community, selection will reflect the quality of each winner's research presented at the ARVO Annual Meeting. Candidates will be clinicians with an academic faculty or comparable appointment who are committed to a career with protected research time. Awardees must also be working or have previously worked under the guidance of a mentor. Up to five awards of \$3,000 each will be given annually. Application for these awards will be part of the abstract submission process. ■

ARVO Offers New International Travel Grants

To include as many international members as possible at the ARVO Annual Meeting, ARVO will provide 50 new travel grants for investigators who reside and conduct research outside of the U.S. The grants will provide partial travel support to attend the 2006 ARVO Annual Meeting (up to \$1,000) and Meeting registration fees will be waived.



Application for all travel grants must be made at the time of abstract submission via the online submission form, available October 15, 2005 at www.arvo.org. The deadline for abstract submission and travel grant application is December 2, 2005, 11:59 PM EST. ■

TFOS Travel Grants

The Tear Film & Ocular Surface Society (TFOS) provided partial travel support to the 2005 ARVO Annual Meeting for five postdoctoral fellows, graduate students or young investigators whose ARVO abstract demonstrated significant scientific achievement in the field of tear film, ocular surface, or Sjogren's syndrome research.

The recipients each received \$750; a complimentary TFOS membership; and a free ticket to the TFOS Cruise & Dinner held during the Annual Meeting. Award recipients are: Audrey Bernstein (USA), Gabriel Greifner (Israel), Tetsuya Kawakita (Japan), Peisong Ma (USA), and Bupe Mwaikambo (Tanzania).

TFOS also managed the selection of an additional Travel Award to Ashish Sharma (USA), on behalf of the Sjogren's Syndrome Foundation. For more information about TFOS awards, please logon to www.tearfilm.org. ■



Tear Film & Ocular Surface Society

www.arvo.org

AWARDS AND GRANTS

2006 ARVO Awards Announced

ARVO is pleased to announce the recipients of the 2006 ARVO Annual Awards. All awards and lectures will be presented at the 2006 ARVO Annual Meeting in Fort Lauderdale, Florida. **Nominations for the 2007 Awards must be submitted by March 3, 2006.** For additional information, logon to www.arvo.org or contact bhollis@arvo.org.

Proctor Medals and Lecture



The Proctor Medal

Trevor Lamb, ScD, FRS, FAA
Australian National University

Edward N. Pugh, Jr., PhD
University of Pennsylvania,
Scheie Eye Institute

Friedenwald Award and Lecture

David R. Williams, PhD
University of Rochester

Weisenfeld Award and Lecture

Evangelos S. Gragoudas, MD
Massachusetts Eye & Ear Infirmary

Cogan Award and Lecture

Joshua Lawrence Dunaief, MD, PhD
University of Pennsylvania
Scheie Eye Institute

ARVO/Pfizer Ophthalmics Translational Research Awards

Joan W. Miller, MD
Massachusetts Eye & Ear Infirmary

Joel S. Schuman, MD
University of Pittsburgh

ARVO Distinguished Service Awards

Gary W. Abrams, MD
Wayne State University,
Kresge Eye Institute

Thomas Yorio, PhD
University of North Texas Health
Science Center



*Barbara E.K. Klein, MD, and
Ronald Klein, MD, MPH
2005 Friedenwald Award Recipients*

Academy of Optometry Grants 16 Travel Fellowships to ARVO

Congratulations to the 16 students who received ARVO Student Travel Fellowship grants from the American Academy of Optometry. The fellowships were provided by an educational grant generously donated by Vistakon, a division of Johnson & Johnson. Lisa Ostrin received the Academy's Weymouth Student Travel Fellowship. The other fellowship recipients in alphabetical order are: Angela Ofeibea Amedo, David A. Berntsen, Shrikant Rajangam Bharadwaj, Jennifer D. Choo, Ling C. Huang, Jennifer J. Hunter, Joy Martin, Patrick Thomas Quaid, Aparna Raghuram, Nalini Rangaswamy, Danielle Robertson, Rocco Robilotto, Subha Trichy Venkataraman, Bin Wang, and Fan Zhang.

The American Optometric Foundation sponsored six Ezell Fellows to attend the ARVO Annual Meeting. They are: Michael Twa, Loretta Szcotka-Flynn, Kit Guan, Srihari Narayanan, Sandra Block, Robert Wojciechowski, and Sanjeev Kasthurirangan. ■



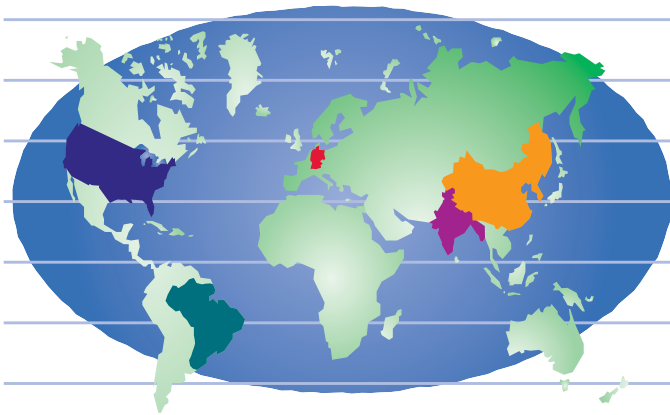
Recipients of the ARVO Student Travel Fellowship Grants



Recipients of the American Optometric Foundation Travel Grants



The Association for Research in Vision and Ophthalmology



Building International Collaborations

2006 ARVO ANNUAL MEETING

April 30 - May 4, 2006

FORT LAUDERDALE, FLORIDA



The Premier Meeting for Vision Science/Eye Research

www.arvo.org

