



Winter Newsletter

1928-2003

Association for Research in Vision and Ophthalmology

Winter 2002



President's Message

Robert N. Weinreb, MD

Fellow ARVO Members,

The ARVO Board of Trustees, Committees and staff have been addressing several items that may be of interest to you. These include:

Annual Meeting

A final registration of 7,991 was reported from the 2002 Annual Meeting. Plan now to attend the 2003 Annual Meeting and ARVO 75th Anniversary Celebration. You can find program information and a registration form for the 2003 Annual Meeting in this newsletter or you may register on the website.

A special note to international attendees: increased security and heightened awareness has created a more rigorous process for the granting of travel visas. Early registration and visa application are important if you plan to attend the 2003 Annual Meeting. Check the ARVO website for tips on the visa application process.

The ARVO 75th Anniversary Celebration will take place at the 2003 Annual Meeting. In addition to a special keynote symposium, this milestone will be marked by several special events. ARVO members are encouraged to submit pictures, publications, and other ARVO memorabilia for display (see details inside).

Abstracts Archive and CD-ROM

The ARVO 2002 Abstracts Online Archive is scheduled for release on December 30, 2002 at www.iovs.org. An updated 2002 Online Abstract Search that will provide an option to purchase a print-on-demand 2002 abstract book will be available in early February 2003.

Abstracts selected for the 2003 Annual Meeting will be available through the Online Abstract Search and Program Planner on February 17, 2003. The CD-ROM version of the 2003 Abstract Search and Program Planner will mail with the *Program Summary Book* on March 14, 2003. These programs will offer full print functionality and will also allow users to purchase, on demand, a complete, bound abstract book.

The ARVO Foundation

Pledges to the new ARVO Foundation have topped the \$500,000 mark. A goal-setting session for The Foundation will occur in late January. Stop by the ARVO booth at the Annual Meeting to learn more about The Foundation and how you can be a partner in its mission to foster innovation in eye and vision research.

Strategic Planning

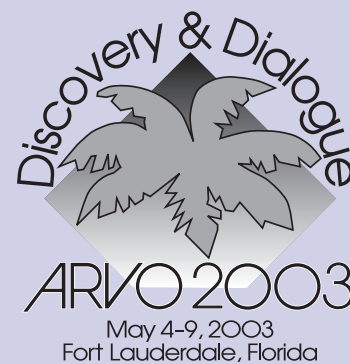
In February, the ARVO Board of Trustees and the Long Range Planning Committee will meet to develop the second five-year plan for the Association (Gary Abrams, Chair). The first five-year plan was drafted in 1998 and was the impetus for activities like the institution of The ARVO Foundation, establishment of JOV, and formalizing ARVO's public policy advocacy efforts. All members were sent a survey via e-mail to provide input to the planning process. The survey is also available on the ARVO website. Your input is vital for this process to succeed. Please provide your survey responses and comments by January 24, 2003.

(continued on page 3)

Annual Meeting Highlights

ARVO Celebrates 75 Years!

Join your colleagues for drinks, food, and fun, at the 75th Anniversary Celebration on Sunday evening from 7-8 pm in Grand Floridian Ballroom A-H.



Computers in Paper Session Rooms

Tired of lugging your laptop to the ARVO Meeting? Computer and projection equipment will be provided by ARVO in each paper session room. Equipment and program specifications will be available at www.arvo.org. For the traditionalists, ARVO will still provide dual 35mm slide projectors for each paper session.

Cyber Cafe Opens

The Convention Center's new Cyber Cafe will be open throughout the meeting week. The Cyber Cafe is located along the Center's main corridor adjacent to Lobby B/C.

Trainee Events

Eight special sessions and events for students, fellows, postgrads and residents. See page 21 for details.

Meeting Details begin on Page 11...

WHAT'S INSIDE

Elections	2	NEI	7
IOVS/JOV Updates	4	Awards/Grants	8
Advocacy	6	Annual Meeting Program ...	11



2002-2003 Board of Trustees Executive Committee

- Robert N. Weinreb, MD**
President
- Edward L. Howes, MD**
Vice President
- Sally S. Atherton, PhD**
President - Elect
- Sheila K. West, PhD**
Immediate Past President
- Joseph C. Besharse, PhD**
Oliver J. Braddick, PhD
Vice Presidents-Elect
- Paul L. Kaufman, MD**
Executive Vice President

ARVO Office

Joanne G. Angle
Executive Director

www.arvo.org
www.iovs.org

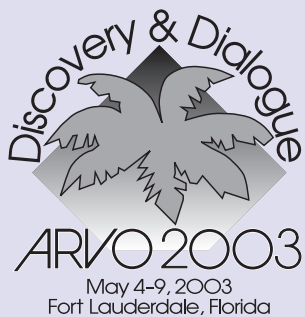
www.journalofvision.org

12300 Twinbrook Parkway • Suite 250
Rockville MD 20852-1606
Phone: 240-221-2900
Fax: 240-221-0370

The Association for Research in Vision and Ophthalmology, Inc. (ARVO) was founded in 1928 in Washington, DC.

“The purposes of ARVO shall be to encourage, and assist research, training, publication, and dissemination of knowledge in vision and ophthalmology.”

©2002 The Association for Research in Vision and Ophthalmology, Inc.



2003 Trustee Elections

Candidates for Board of Trustees

All voting members (Regular, Family, Sustaining, Life, and Family Life) of the Anatomy & Pathology (AP) and Glaucoma (GL) Sections will be mailed proxies and biographical information on the candidates in February 2003.

Anatomy and Pathology (AP)

Martine J. Jager, MD, PhD
Leiden University Medical Center, The Netherlands

Thomas T. Norton, PhD
University of Alabama at Birmingham

Glaucoma (GL)

George A. Cioffi, MD
Devers Eye Institute, Portland, Oregon

Robert Ritch, MD
Glaucoma Associates of New York

Mailed proxy ballots must be received in the ARVO office no later than April 25, 2003, or you may cast your proxy in person, or change your vote, beginning 15 minutes prior to your Section's Business Meeting, either Monday, May 5 or Tuesday, May 6 in Ft. Lauderdale, Florida. The election results will be announced during the corresponding Section's Business Meeting.

Nominees Sought for 2004 Elections

Board of Trustees

Members of the **Immunology & Microbiology (IM)**, **Retinal Cell Biology (RC)** and **Visual Psychophysics & Physiological Optics (VI)** Sections will nominate candidates for the **Board of Trustees** during their Section's Business Meeting. Each Section must select two candidates for the 2004 ballot. In preparation, members of these Sections are encouraged to think about who would best represent their interests on the Board, prior to this year's Business Meeting.

Program Committee Members

The Program Committee (PC) is responsible for the content of the scientific portion of the ARVO Annual Meeting. Each Section will nominate and elect their PC representative(s) at their Section Business Meeting at the Annual Meeting. A term of service on the PC for three or four years, depending upon the term length each Section has determined appropriate. The following are criteria to be aware of when considering becoming a PC member.

- Attendance at the January PC Meeting by a committee member is mandatory in the year prior to becoming Section Chair, and while serving as Section Chair.
- All retiring, current and incoming PC members must attend the PC Meeting at the Annual Meeting to initiate plans for the subsequent year's program.
- Each PC member must respond in a timely manner to inquiries from other PC members, the PC Chair and the ARVO Office.
- Each PC member must show a willingness to devote a substantial amount of time during December and January reviewing the abstracts, culminating in attendance at the January PC Meeting.
- Each PC member must be available to communicate with their Section's committee members via phone, fax, e-mail and conference calls throughout the year, particularly during the December-January reviewing process.
- Each PC member must be able to fulfill the duties of Section Chair for one year, including: determining reviewer assignments; accepting responsibility for final accounting of each abstract assigned to your Section; and conducting the Section Business Meeting at the Annual Meeting.

President's Message *(continued from page 1)*

Potential Conflicts of Interest

The Board of Trustees has invited the Ethics and Regulation in Human Research Committee (Doug Anderson, Chair) and the Commercial Relations Committee (Adrienne Graves, Chair) to recommend policies and procedures to deal with the appearance of a conflict or duality of interests by members in ARVO-related activities. This is particularly relevant to those serving on committees, such as the Program Committee and the editorial boards of *IOVS* and *JOV*. This issue will be on the agenda of all Section Business Meetings in May for discussion.

Membership

As of September 30, 2002, membership had reached 10,520.

If you have not done so, please renew your membership today through the ARVO website, www.arvo.org.

Thank you for your support of ARVO. I look forward to seeing you all in Fort Lauderdale, May 4–9, 2003 at the Annual Meeting.

Volunteer Today for an ARVO Committee

ARVO Committees are active in many areas: developing programs, enhancing member services, and assisting the Board of Trustees in the leadership of the Association. Each year ARVO members have the chance to express interest in serving on a committee and playing a more active role in filling these critical committee functions. Service on an ARVO Committee will bring you close to the inner-workings of the Association, providing opportunities for personal and professional development and advancement.

Appointments to ARVO Committees are made each year by the President-Elect. New Committee appointees are encouraged to attend Committee functions at the Annual Meeting prior to the commencement of their terms at the close of the Annual Meeting. Throughout the year, Committees meet via conference call, with the only face-to-face meetings typically occurring in conjunction with the ARVO Annual Meeting. To be considered for appointment, visit the Committees page under "About ARVO" on the ARVO website. Here you can view Committee descriptions and learn more about the work of the Committees. A Volunteer form can be found on the website at the Committee main page and on each Committee's individual page. A form is also included in the back of this newsletter. Complete the form today and submit it to the ARVO office for appointment consideration in 2003.

www.arvo.org

2003 ARVO Calendar

January

January 24–25 Program Committee Meeting

January 31 **Deadline** for Abstract Withdrawal (after this date abstracts will still appear in Meeting publications)

February

February 14 Ballots Mail to AP and GL Sections

February 17 Abstract Acceptance Notification
Abstract Search Program Activated*

March

March 4 **Deadline** for Awards Nominations
Travel Grant Recipients Announced*

March 14 Meeting Publications Mailed

March 21 **Deadline** for Reservations through Housing Bureau*

April

April 11 **Deadline** for Annual Meeting Advance Registration*
Deadline for ARVO Course Registration*

April 29 **Deadline** for Annual Meeting Registration Refunds (in writing and accompanied by namebadge)
Deadline for Course Refunds (in writing)

May

May 3 **ARVO Course:** Conditional Gene Targeting
Annual Meeting Onsite Registration Opens

May 4–9 **Annual Meeting—Celebrate ARVO's 75th!**

*Online at www.arvo.org

Special Discounts on Journals for ARVO Members

As a member benefit, we have arranged for discounted subscriptions to ARVO members for several journals. Some restrictions apply and not all classes of membership may be eligible. All subscription orders must be placed directly with each journal, not through the ARVO office. Contact information and rates are available on the ARVO website under "Publications—Discount Journals".

If there are additional journals that members would be interested in receiving at a discount, please forward the name of the publication to mem@arvo.org, and we will contact the publisher about participating in this member benefit program.

- *Binocular Vision & Strabismus Surgery Quarterly*
- *Current Eye Research*
- *European Journal of Ophthalmology*
- *Graefe's Archive*
- *Journal of Toxicology—Cutaneous and Ocular Toxicology*
- *Neuro-ophthalmology*
- *Ocular Immunology and Inflammation*
- *Ophthalmic Epidemiology*
- *Optometry and Vision Science*
- *Perception*
- *Strabismus*
- *Visual Neuroscience*

ARVO NEWSLETTER WINTER 2002 ■ 3

IOVS

Investigative Ophthalmology & Visual Science

IOVS Announces Color Charge Reduction

Manuscripts submitted after January 1, 2003, will be subject to a \$500 color charge per page when accepted. This \$300 reduction over the 2002 rate reflects the Board of Trustees response to feedback from members. The charge will be reflected on the order form that accompanies soft proofs.

2002 ARVO Abstracts Archived Online

Long-term, open access to 2002 ARVO abstracts through *IOVS* Online at www.iovs.org will begin December 30, 2002. These ARVO E-abstracts are indexed by First Author in the December 2002 print issue of *IOVS*. With fully open access to everyone, abstracts will be searchable by author(s), abstract number, and subject(s), and provide full text retrieval. The citation instructions for ARVO publications appear in the Instructions for Authors of the journals.

The E-abstract index for the 2003 Abstracts will appear in the May issue of *IOVS*.

IOVS Submissions Online Only as of January 1, 2003

With the transition to online manuscript submission completed, submissions beginning January 1, 2003 must be submitted online. To view the Instructions for Authors and guidelines for online submission, see <http://iovs.manuscriptcentral.com/>. Should you need assistance in preparing or uploading your manuscript, contact ScholarOne at 434-817-2040 x167.

Advertising Opportunities Available in IOVS

Are you aware that there are three types of advertisements available in *IOVS*? Advertising formats include classified line ads, classified display ads and display ads. *IOVS* advertising is handled by Scherago International, 11 Penn Plaza, Suite 1003, New York, NY 10001. For film/electronic format specifications, contact Qien Porter, Scherago International, 212-643-1750 x33, or email qienp@scherago.com.

Bonus issues are distributed at the ARVO Annual Meeting, as well as the AAO and Neuroscience annual meetings.

IOVS receives AAO Award

Dr. Robert N. Frank, Editor-in-Chief of *IOVS*, accepted the American Academy of Ophthalmology's 2002 Distinguished Service Award on behalf of *IOVS*. The award recognizes *IOVS*' "valuable contributions to the field of ophthalmology through significant contributions to basic and clinical ophthalmic research." The award was presented at the AAO/PAAO Joint Meeting in Orlando Florida, October, 2002.



Dr. Robert N. Frank (center), *IOVS* Editor-in-Chief, receives the American Academy of Ophthalmology's Distinguished Service Award for *IOVS*. On the left is Dr. Thomas A. Weingeist, AAO President; on the right is AAO Executive Vice President Dr. H. Dunbar Hoskins, Jr. (Photo: J. Matthews).

Free Online Access for Members

Investigative Ophthalmology and Visual Science Online (*IOVS* Online)

As a member of ARVO you receive a free online subscription to the journal. Visit www.iovs.org to activate your online subscription. By activating your subscription, you can also take advantage of those services available through the HighWire portal:

- Browse the more than 12 million articles in over 4,500 Medline journals. 400,000+ of those articles are free full text from 342 HighWire-hosted journals.
- Quick search HighWire and Medline by author, keywords, year, volume and page.
- Browse articles in the biological sciences, medical sciences, physical sciences and social sciences.
- Sign up for "My Favorite Journals" which enables you to track those publications which are of most interest to you.
- Monitor the publication of articles and issues matching your criteria by signing up for "My Email Alerts".
- Sign in to all your personal subscriptions with one click by signing up for "My Access".

Visit <http://highwire.stanford.edu> to access the portal.

The Second Annual IOVS Online Submission Workshop

Wednesday, May 7, 1:30-3:00 pm • Room 315
(Co-sponsored by *IOVS* and ScholarOne)

This two-part workshop begins with a presentation by ScholarOne, developers of Manuscript Central, the online submission program for *IOVS*. Representatives from ScholarOne will teach *IOVS* authors to prepare and submit online movies and supplemental materials for electronic publication. The second part of the workshop will be led by Dr. Robert N. Frank, Editor-in-Chief of *IOVS*. Dr. Frank will answer questions regarding peer review and subject selection for *IOVS* authors. **A must attend workshop for all!**

New Articles

Since the first publication in May, 2001, the *Journal of Vision* has published 49 articles, as well as 1,229 conference abstracts. In the last year, nearly every author has made extensive use of color figures, and many have included movies. A recent article which fully exploits both features is *Subjective Color from Apparent Motion* by Chen and Cicerone (<http://journalofvision.org/2/6/1/>).

New Editors

Marty Banks and Mike Shadlen have been appointed to the Editorial Board of *Journal of Vision*. Dr. Banks is an expert in binocularity and stereo vision, self-motion perception, multi-sensory interactions, and infant vision. Dr. Shadlen is an expert in motion processing and cognitive neuroscience. With these appointments, the *Journal of Vision* strengthens and expands its commitment to publication of high quality articles in all areas of vision science.

Special Issues

In the past year the journal has published two special issues. The first, on Classification images: A tool to analyze visual strategies (<http://journalofvision.org/2/1/>) was published in January of this year. The second, completed recently, consisted of papers presented at the Color and Vision Meeting hosted by the University of California Irvine in October, 2001 (<http://journalofvision.org/2/6/>).

Forthcoming special issues include:

- **Induced failures of visual awareness** (to appear January, 2002)
- **Linking eye movements and perception** (see *Call for Papers* elsewhere in this newsletter).

New Fee Structure

Effective January 1, 2003, *JOV* will cease its publication fee in favor of page charges. A reduced rate will be available for authors who provide a "camera-ready" manuscript. Details will be provided soon.

New Staff

JOV has established new staff positions of Technical Editor and Online Manager to further strengthen the editorial and production process.

Animated icons

JOV icons are useful graphic identifiers associated with each published article. Animated icons were introduced with issues <http://journalofvision.org/2/5/> and <http://journalofvision.org/2/6/>. Authors are encouraged to submit interesting and relevant animated icons with their manuscript. The journal is also happy to assist in their creation.

VSS Abstracts

JOV has recently published the 2002 Vision Sciences Society abstracts. Browse them at <http://journalofvision.org/2/7/>.

Grant from Smith-Kettlewell

JOV has received a grant of \$10,000 from the Smith-Kettlewell Eye Research Institute in San Francisco, CA. The donation, in honor of Editors Suzanne McKee and Joel Miller, is intended to support and enhance the journal.

www.arvo.org

ARVO 2002 JOV Workshop

Thursday, May 8, 2003 • Room 114

All interested ARVO members are invited to attend this hands-on workshop on the *Journal of Vision*. Editor-in-Chief Andrew Watson, PhD, will demonstrate the journal's multimedia and hypertext features and will describe the submission and production processes. Authors will learn how to make use of the latest technology when preparing their manuscripts for *JOV*. An interactive question-and-answer period with Dr. Watson will follow the presentation.

Grant from Open Society Institute

The *Journal of Vision* has received a grant from the Open Society Institute (www.soros.org) to defray page charges for authors from designated countries, including Bulgaria, Croatia, Czech Republic, Hungary, Poland, Russia, Turkey, and Yugoslavia. Contact the journal at jsong@journalofvision.org for further details.

Poster

A color poster was recently produced to commemorate the first year of *JOV*. Let us know if you would like a copy. A digital version is also available, of course.

JOV Alerts

Would you like an email notification whenever a new article or issue is published in *JOV*? To subscribe to our email alerts go to <http://journalofvision.org/jov/info/subscribe.html>.

ARVO Dues Support

This year ARVO members have the option to direct a portion of their dues to *JOV*. We thank all those who took advantage of this option to support *JOV*. If you have not yet done so, renew at www.arvo.org.

Open Access Survey

Open access is an important feature of the *Journal of Vision*. But how important is it to readers? In a recent survey, when a set of typical vision researchers tried to access online full-text recent articles in a set of vision journals, only 30% could be reached from the office, and only 13% from home. *JOV* articles, of course, can be reached 100% from anywhere, anytime.

The *Journal of Vision* offers open-access, color, movies, hyperlinks, rapid publication, a permanent, simple URL for each article, and an exceptional editorial board. We look forward to hearing your ideas for how we can make the journal better. Contact us at

Andrew Watson, Editor-in-Chief
abwatson@journalofvision.org

Joon Song, Online Manager
jsong@journalofvision.org



Advocacy Update

ARVO and the Alliance for Eye and Vision Research Host Congressional Briefing

ARVO, in cooperation with The Alliance for Eye and Vision Research (AEVR) of which ARVO is a member, held a Congressional Luncheon Briefing on Capitol Hill on Thursday, September 26, 2002 entitled, "Macular Degeneration: The Leading Cause of Blindness in Older Americans." The briefing was also sponsored by the Congressional Older Americans Caucus and the Bipartisan Disabilities Caucus and was attended by Congressional staff from over 80 member offices. ARVO members Stephen J. Ryan, MD, Rick Ferris, MD and Don Zack, MD spoke at the briefing.

Dr. Ryan, presented important facts about macular degeneration. Dr. Ferris presented study results indicating that 329,000 Americans could be saved from advanced macular degeneration with zinc and antioxidant treatment, and spoke of new developments in laser treatment and photodynamic therapy. Dr. Zack discussed the role of genomics in understanding the causes of macular degeneration, and in ultimately developing new treatments. Dr. Ryan finally offered an exciting glimpse of new technologies which may treat blinding eye diseases many years in the future, presenting early results from a retinal chip being tested on a patient with retinitis pigmentosa.

This was the second briefing hosted by ARVO and AEVR in 2002. Additional briefings will be held in 2003 on topics requested by members of Congress and their staff. A special thanks to the ARVO members who spoke at these briefings, raising the awareness of Congress to the innovations and discoveries being made by eye and vision researchers around the world.

ARVO and ISER to Explore International Advocacy

ARVO has been very successful in persuading the US Congress to increase its support for eye and vision research through substantially increasing funding for the National Eye Institute of the NIH. While all members of the eye and vision research community, including those from outside the US, benefit from increased funding from the NEI within the US, the Advocacy Committee strongly believes that similar efforts, adjusted for the specifics of individual countries and/or regions, can favorably influence appropriation or availability of funds for vision research internationally. Although the International Society for Eye Research (ISER) has not engaged in such activities, it also recognizes the need and present opportunities for these efforts globally. Accordingly ARVO and ISER are jointly sponsoring the first **Symposium on International Advocacy For Vision Research Funding**, so that US and International ARVO members and attendees can learn from and exchange ideas with each other and begin to establish forums and formats for approaching government and private entities in non-US venues to request increased funding for vision research. Plan to attend this symposium, scheduled for May 5, 2003 at the ARVO Annual Meeting in Fort Lauderdale.

National Academy of Sciences (NAS) Study of NIH Organization Continues

On November 20, 2002, ARVO representatives testified before the NAS committee studying the organization of NIH. The testimony articulated ARVO's strong opposition to the plan brought forward by former NIH Director Dr. Harold Varmus to consolidate the 27 current centers and institutes at NIH into 5 large sections. Under this plan, the National Eye Institute would be grouped with other institutes under a section dealing with brain functions and neuroscience. The Committee continues to discuss the issue, and a report to Congress is due in the spring of 2003. **ARVO has joined other member organizations of the National Alliance for Eye and Vision Research as well as scientific and lay groups outside of the eye and vision community to strongly oppose this plan. Thank you to ARVO members who provided formal comment which was included in ARVO testimony.**

NEI Budget Stalled in Appropriation Logjam

As Congress wraps up their work for 2002 without completing the fiscal year 2003 funding bills, Hill watchers are confounded as to when a final 2003 budget will be passed. A Continuing Resolution, which will last through January 11, 2003, will allow NEI to operate as if its budget remained frozen at 2002 levels. The next Congress will attempt to resolve 2003 funding issues early in the year so that work on the fiscal year 2004 budget can proceed.

Before adjourning, Senate appropriators proposed \$634 million for NEI, \$2 million more than in the President's budget. However, the full Senate has not approved this number, and the House has not acted on the bill at all. ARVO members are encouraged to follow the budget talks closely. Contact your member of Congress and urge them to support \$692 million for NEI in 2003.

The ARVO Public Policy Network Needs You

The ARVO Public Policy Network (PPN) is a group of volunteers who have an interest in taking part in the process that shapes the policy decisions impacting the field of eye and vision research. Members receive updates on current initiatives and legislative actions to keep them informed. Members are called upon to take action by contacting their members of Congress when the voice of eye and vision research needs to be heard.

To become a member of the Public Policy network, simply post an e-mail to rripp@arvo.org expressing your interest. Provide the best e-mail address to use to contact you with information and action alerts as well as your current phone and fax numbers.

New NEI Funding Opportunities for Fiscal Year 2003

NEIBank At the time this article was prepared, the NEI was operating under a continuing resolution. When the final Fiscal Year 2003 appropriation is enacted, details will be available on the NEI website, www.nei.nih.gov. The NEI continues to offer a number of special funding initiatives which provide support for new areas of research. ARVO members are encouraged to submit applications that take advantage of these and other funding opportunities, listed on the website:

Novel Therapeutic and Pathogenetic Studies of Oculomotor Disorders

This Request for Applications solicits R01 grant proposals which broadly address novel therapeutic strategies and/or new insights into the pathogenesis of oculomotor diseases. Responses may include basic, applied, preclinical, or clinical research. There are two application receipt dates, March 27, 2003, and November 21, 2003.

NEI Small Research Grants for Data Analysis (R03)

The NEI has re-issued this Program Announcement. It continues support for research involving secondary data analyses using existing database resources. Applicants may now request up to \$150,000 annual direct costs for up to two years.

Global Health Research Initiative for New Foreign Investigators

This Request for Applications (RFA) is intended to promote productive re-entry of NIH-trained foreign investigators into their home countries as part of a broader program to enhance the scientific research infrastructure in developing countries. An applicant may request up to \$50,000 annual direct costs for up to five years. A Letter of Intent is due on January 18, 2003, for a February 18, 2003 receipt date.

NEI Small Grants for Pilot Research (R03)

This program was initiated in 2001 and will remain in effect for at least two years. It encourages independent investigators in all research areas and at all levels of experience to pursue their most innovative, creative, and high-impact ideas. Small grants provide up to three years of support of up to \$100,000 direct costs per year. R03s present the opportunity to acquire data to support the feasibility or rationale for a new research direction. Applications are accepted on three receipt dates each year, February 1, June 1, and October 1.

Collaborative Research on Therapy for Visual Disorders

This broad, on-going program supports multidisciplinary translational research to develop novel therapies for all visual system diseases and disorders. Up to \$2 million in direct costs per year is available to provide the resources for scientists from several disciplines to form research teams able to rapidly and efficiently bring the results of laboratory and animal studies into clinical practice.

NEI Initiates Program Planning Activities

NEI Director Dr. Paul A. Sieving has issued the following call to the vision research community, requesting their participation in the preparation of the next plan, *Vision Research—A National Plan: 2004-2008*:

Dear Colleague:

The National Eye Institute (NEI) conducts program planning activities to identify and communicate the needs and opportunities in vision research to a variety of audiences, including the research community, advocacy and professional organizations, governmental officials, and the public. Working scientists have always been key to these activities, and I am again asking for your help.

Beginning this year, NEI program planning activities will be conducted in two overlapping phases. Phase I will consist of revising and updating the Executive Summary of *Vision Research—A National Plan: 1999-2003*. To accomplish this task, we must assess scientific progress, determine needs and opportunities, and establish goals and objectives for the next five years. The Executive Summary (and the full document) is available in both HTML and PDF versions under the Strategic Plans section on the NEI website at: www.nei.nih.gov. The information you provide will be reviewed by the National Advisory Eye Council, NEI program staff, and experts in the field, who will be charged with the responsibility of preparing a draft of the next plan, *Vision Research—A National Plan: 2004-2008*. The draft will be posted on the NEI website and circulated widely for comment before it is finalized.

Phase II of program planning will consist of a series of workshops, meetings, and conferences on emerging areas of scientific opportunity. I anticipate that two such forums will be held each year. These activities will serve to continuously update and supplement *Vision Research—A National Plan: 2004-2008*, and to aid the NEI program staff and the National Advisory Eye Council in implementing the plan's recommendations.

I look forward to receiving your recommendations and comments and appreciate your participating in the NEI program planning effort.

Sincerely,
Paul A. Sieving, MD, PhD, *Director*, National Eye Institute

Respond by regular mail, fax, or email no later than December 31, 2002, as described below, please:

1. Provide a brief summary of the most significant examples of research progress or advancement in your specific field over the past five years.
2. Assess the relevancy of the current program goals and objectives. Provide suggestions for additions, deletions or changes where necessary. Please note that the program goals and objectives are meant to encompass research needs and opportunities for a broad area of research and are not intended to describe individual projects.

By mail:

Program Planning Project,
National Eye Institute, Division
of Extramural Research
Executive Plaza South, Suite 350,
6120 Executive Blvd MSC 7164,
Bethesda, MD 20892-7164

By fax: 301-402-0528

By email:

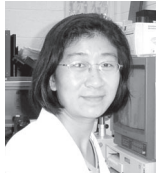
neiplan.response@nei.nih.gov

ARVO 2002-2003 Research Fellowship Grants

The ARVO Research Fellowship Grant Program

Established in 1987 with one Alcon Laboratories grant, the program continues to be generously supported by Alcon, Novartis Ophthalmics, and the Japan National Society for the Prevention of Blindness. Recipients are selected from candidates who apply for the Fight for Sight Research Division, Prevent Blindness America Awards Program, for which ARVO conducts the scientific review.

We are pleased to announce the recipients of the 2002-2003 Grants:



ARVO/Alcon Laboratories Research Fellowship

Jian Zhou, MD, PhD, Thomas Jefferson University

Project: Src Family Tyrosine Kinases in Lens Development and Cataract Formation



ARVO/Novartis Ophthalmics Research Fellowship.

Jie Zhou, MD, PhD, University of Michigan Medical Center

Project: Role of Glucose Transporter 1 Overexpression in Diabetic Retinopathy



ARVO/Japan National Society for the Prevention of Blindness Fellowship

Yuichi Hori, MD, Schepens Eye Research Institute

Project: Regulation of MUC4 Gene Expression in Human Conjunctiva

Cora Verhagen Prize

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 consisting of six active ARVO members has been appointed to select the Prize Winners.

Two prizes will be awarded. 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 in 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 2003 Cora Verhagen Prize will be awarded at the 2004 ARVO Annual Meeting. The second place winner will receive an award of \$100.

1. Eligible candidates for the prize should conform to the following criteria: Candidates must be a student or postdoctoral fellow considered as a trainee in ocular immunology working under the guidance of a mentor. Such trainees may have independent support for salaries, but do not hold a personal grant to support the cost of their research. Excluded are individuals with permanent faculty appointments at universities, research institutes, or employees of companies.
2. Candidate must be the first author of a poster or paper presentation at the 2003 ARVO Annual Meeting dealing with a subject in the field of ocular immunology.

Call for Applications deadline is **March 9, 2003**. Please send all Application Forms to:

Dr. Martine Jager
Department of Ophthalmology
LUMC-J3
PO Box 9600
2300 RC Leiden
The Netherlands
Fax: 31-71-5248222
E-mail: M.J.Jager@lumc.nl

Do *not* send Application Forms to the ARVO Office.

Application Form

I would like to compete for the **2003 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 Name: _____



2004 ANNUAL AWARDS

CALL FOR NOMINATIONS

Deadline: March 4, 2003

Members of the vision community are invited to nominate their esteemed colleagues for the prestigious ARVO Awards to be presented at the ARVO Annual Meeting, April 25–30, 2004.

Proctor Medal

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

Mildred Weisenfeld Award for Excellence in Ophthalmology

Distinguished scholarly contributions to the clinical practice of ophthalmology

Kupfer Award

Distinguished public service on behalf of eye and vision research

Friedenwald Award

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

Cogan Award

Contributions to research in ophthalmology or visual sciences directly related to disorders of the human eye or visual system, by a promising individual researcher under 40 years of age

Special Recognition Award

Outstanding service to ARVO and the vision research community

For complete nomination information, please visit our website at www.arvo.org or contact Barbara Hollis at bhollis@arvo.org or 240-221-2940.

Journal
of

VISION

Special Issue—Call for Papers

Linking Eye Movements and Perception

During normal visual behavior, humans and other primates use saccades to scan their environment, pursuit and vergence to track moving objects, as well as reflexive eye movements to stabilize the retinal image during self-motion. Despite the sophistication of these movements and the important purposes they serve, most research on visual perception implicitly assumes that eye movements play only a minor role in visual processing. Similarly, current models of visually driven eye movements are based on the view that the oculomotor system consists of simple control loops that function independently of perception. Indeed, some have proposed two separate visual systems for perception and motor action.

However, recent demonstrations in some cases of a clear linkage between eye movements and perception and in other cases of a lack thereof, together with new technical developments, have reinvigorated interest in the relationship between eye movements and perception.

To foster integration of critical findings across these two fields, we invite researchers to contribute to a special issue of the *Journal of*

Vision. Physiological, behavioral, psychophysical, computational, and imaging approaches are welcome. This issue will address a wide range of topics, including but not limited to:

- In what ways do eye movements affect visual perception?
- In what ways does visual perception affect eye movements?
- What psychophysical methodologies can be used to better understand eye movements?
- What oculomotor methodologies can be used to better understand visual perception?
- How are saccadic and perceptual decisions related during search?
- How are object-motion perception and pursuit eye movements related?
- How do scan paths impact visual localization, discrimination, and identification performance?
- How do eye movements reflect attentional state?

- How does cognitive state affect eye movements?
- How are eye movements related to motor planning, such as reaching, grasping, and steering?

Guest Editors:

Lee Stone
NASA Ames Research Center
lstone@mail.arc.nasa.gov

Fred Miles
NIH Laboratory of Sensorimotor Research
fam@lsr.nei.nih.gov

Marty Banks
University of California, Berkeley
marty@john.berkeley.edu

Deadline for submissions: April 2, 2003

Target publication date: September 1, 2003

Journal of Vision encourages the use of images, color, movies, hyperlinks, and other digital enhancements. To submit a paper to this special issue please follow the Instructions for Authors.



If you are interested in serving on an ARVO committee...
ARVO is interested in you.

ARVO Committees and Task Forces require the dedication and commitment of many volunteers. Join your peers and colleagues in serving the Association through Committee service. To be considered for Committee appointment, complete the form below and indicate the Committee(s) in which you have an interest.

Name: _____

Address: _____

City/State/Zip Code _____

Country: _____

Phone: _____

Fax: _____

E-mail: _____

ARVO member since: _____ ARVO Member # _____

Past ARVO activities: _____

Please indicate the committee(s) in which you have an interest. Committee descriptions are available on the ARVO website at www.arvo.org/committees/committeehome.asp:

- Advocacy
- Animals in Research
- Commercial Relationships
- Diversity Issues
- Ethics and Regulation in Human Research
- Exhibits
- International Members
- Long Range Planning
- Members-in-Training
- Professional Development & Education
- Public Relations
- Publications

Return to:

Robert Rupp, ARVO Governance Manager
 12300 Twinbrook Pkwy Suite 250, Rockville, MD 20852
 Phone: 240-221-2912 • Fax: 240-221-0370
 E-mail: rrupp@arvo.org





Celebrate

**75 Years of Discovery...
75 Years of Innovation...
75 Years of Science**



Meeting Highlights

Computers in Paper Sessions

Computer and projection equipment will be provided by ARVO in each paper session room. Equipment specifications will be available at www.arvo.org. For the traditionalists, ARVO will still provide dual 35mm slide projectors for each paper session.

All presenters should come to the AV Support Room the day prior to their presentation in order to verify computer presentation compatibility or to preload their slides.

Placement Service Goes Online

This year you will be able to complete your listings for the Placement Service online. Watch your emails and the website www.arvo.org for details.

Career Fair • Thursday May 8, 12:00–4:00 pm

This is a great opportunity to speak with representatives from industry, academia and government about opportunities with their organizations. Wander down the main corridor to Lobby D and check it out!

Students, Fellows, Postgrads and Residents!

We have lots of great sessions and events designed specifically for you! See page 21 for details.

Cyber Cafe Opens

The Convention Center's new Cyber Cafe will be open throughout the meeting week. The Cyber Cafe is located along the Center's main corridor adjacent to Lobby B/C.

Hotel Shuttle Bus

All hotels participating in the ARVO housing block are accessible to the Convention Center via the Hotel Shuttle. Attendees are strongly encouraged to utilize the Shuttle Bus. Relax and let the bus driver deal with the traffic!

Air & Sea Show

Once again meeting attendees will get to share in the thrill of the Air & Sea Show. This annual event occurs Saturday May 3 and Sunday May 4 along the oceanfront in Fort Lauderdale. Traffic near the beaches can be heavy, so allow extra time to get to the Center—better yet, take the Shuttle!

Table of Contents

Site and Times	11
Scientific Program	12
Schedule Overview	12
Continuing Medical Education	12
Program Guides	12
Special Session	13
Awards & Lectures	13
Symposia	13
Minisymposia	13
Workshops/SIGs	13
Business Meetings	16
Social Activities	16
General Meeting Information	17
Housing	18
Registration Information	19
Advance Registration	19
Onsite Registration	19
Namebadges	19
Guest Registration	19
Exhibitor Registration	19
Press Registration	19
Seventh Annual Vision Research Conference ..	19
Transportation/Parking	20
Students, Post-grads, Fellows and Residents	21
ARVO Education Course	21
Housing Matrix/Index	22
Discovering Greater Fort Lauderdale	24
Annual Meeting Registration Form	25
Scientific Section Descriptions	26
Membership Form	27

75th Anniversary Celebration!

Join your colleagues for fun, food and drink in Celebration of ARVO's 75th Anniversary

**Monday, May 5
7:00–8:00 pm**

Grand Floridian Ballroom A-H

Site and Times

The ARVO Course will be held on Saturday, May 3, 2003. All other sessions will begin Sunday, May 4 at 8:30 am and extend through Friday, May 9, 2003 to 12:30 pm. All sessions will be held at the Greater Fort Lauderdale/Broward County Convention Center.

Program

Schedule Overview

	Saturday, May 3	Sunday, May 4	Monday, May 5	Tuesday, May 6	Wednesday, May 7	Thursday, May 8	Friday, May 9
Registration/ ARVO Information Hall B/C	1:00 pm–4:00 pm	7:30 am–7:30 pm	7:30 am–7:30 pm	7:30 am–7:30 pm	7:30 am–6:00 pm	7:30 am–6:00 pm	7:30 am–11:30 am
Fort Lauderdale Information Center	1:00 pm–4:00 pm	8:00 am–8:30 pm	8:00 am–8:30 pm	8:00 am–8:30 pm	8:00 am–6:00 pm	8:00 am–6:00 pm	8:00 am–12:30 pm
Placement Service	1:00 pm–4:00 pm	8:00 am–5:00 pm	8:00 am–5:00 pm	8:00 am–5:00 pm	8:00 am–5:00 pm	8:00 am–5:00 pm	
Exhibits Hall B/C		9:00 am–4:00 pm	9:00 am–4:00 pm	9:00 am–4:00 pm	9:00 am–4:00 pm		
Paper Sessions			8:30 am–10:15 am 10:45 am–12:30 pm	8:30 am–10:15 am 10:45 am–12:30 pm	8:30 am–10:15 am 10:45 am–12:30 pm	8:30 am–10:15 am 10:45 am–12:30 pm	8:30 am–10:15 am 10:45 am–12:30 pm
Symposia SIGs Workshops Meetings	ARVO Course 9:00 am–4:00 pm Conditional Gene Targeting Vision Research Conference (Day 2)	Symposia 8:30 am–10:30 am 11:00 am–1:00 pm ARVO Basic/Clinical Science Lecture 2:30 pm–4:30 pm	Section Business Meetings 12:35 pm–1:15 pm	Section Business Meetings 12:35 pm–1:15 pm	General Business Meetings 12:35 pm–1:15 pm		
Keynote & Award Lectures		Keynote Symposium 5:00–7:00 pm	Proctor Medal/ Lecture 3:15–4:00 pm Weisenfield Award/ Lecture 4:15 pm–5:00 pm	Freidenwald Award/ Lecture 3:15–4:00 pm Cogan Award/ Lecture 4:15 pm–5:00 pm			
Paper Sessions			5:15 pm–7:00 pm	5:15 pm–7:00 pm	3:30 pm–5:15 pm	3:30 pm–5:15 pm	
Posters Sessions		Posters are to be displayed for the full day on the assigned day. Presenters in attendance for one two-hour period: 8:30–10:30 am (Sunday–Thursday), 10:30 am–12:30 pm (Sunday–Thursday), 2:30–4:30 pm (Sunday), 5:15–7:15 pm (Monday–Tuesday), or 3:30–5:30 pm (Wednesday–Thursday). All presenters in attendance 4:30–5:00 pm (Sunday), 7:15–7:45 pm (Monday–Tuesday), 5:30–6:00 pm (Wednesday–Thursday) on assigned days.					
Social Events		75th Anniversary ARVO Social 7:00 pm–8:00 pm	Student Social 7:30 pm–8:30 pm ARVO Rock Concert 8:00 pm–10:00 pm		ARVO Classical Concert 8:00 pm–9:30 pm		

Continuing Medical Education

The 2003 ARVO Annual Meeting has been certified for CME Category 1 credits on an hour-for-hour basis (for up to 54 credit hours). CME Forms, which must be completed and returned to receive credits, will be available in the ARVO Registration area at the Convention Center and on the web at www.arvo.org. There is a \$40 CME application fee, payable upon submission of the Form for processing. The Federation of American Societies for Experimental Biology (FASEB) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) for the purposes of providing Continuing Medical Education Credits. For more information regarding CME credits, please contact the FASEB Office of Scientific Meetings and Conferences 301-530-7013.

ARVO is solely responsible for the content of the Scientific Program for the 2003 Annual Meeting.

PROGRAM GUIDES

Program Summary Book and CD-ROM

The 2003 *Program Summary Book* and CD-ROM will mail in early March to all members. Nonmember Annual Meeting registrants who register by March 7, 2003 will be sent the publications.

Note: Materials will be mailed to the address in the ARVO Membership Database. Please verify your address on the ARVO website by going to www.arvo.org and clicking on Membership Directory. If a member wishes to change his or her communication information, please notify the ARVO Office via fax: 240-221-0370, or e-mail: mailchange@arvo.org.

Abstract Search Program

This database of abstract authors, titles, full text of abstracts submitted, and Program information will be available online, and in a downloadable format after February 17, 2003 at www.arvo.org. The program will allow purchase of a print-on-demand abstract book!

Program

SPECIAL SESSION

ARVO Course: Conditional Gene Targeting

Saturday, May 3, 9:00 am–4:00 pm Ballroom D

Organizer: Eric A. Pierce, MD, PhD. Pre-registration and fee payment are required. Use the Annual Meeting Registration Form on the ARVO web site, or in this Insert. Course details on page 21.

AWARDS AND LECTURES

Monday, May 5

3:15–4:00 pm Ballroom B-D

Proctor Medal will be presented to Jacob G. Sivak, OD, PhD, University of Waterloo. Lecture: “Through the Lens Clearly—Development and Phylogeny”

4:15–5:00 pm Ballroom B-D

Weisenfeld Award will be presented to Sohan S. Hayreh, MD, PhD, DSc, College of Medicine, University of Iowa. Lecture: “Posterior Ciliary Artery Circulation in Health and Disease”

Tuesday, May 6

3:15–4:00 pm Ballroom B-D

Friedenwald Award will be presented to Joseph L. Demer, MD, PhD, Jules Stein Eye Institute, UCLA. Lecture: “Pivotal Role of Orbital Connective Tissues in Binocular Alignment and Strabismus”

4:15–5:00 pm Ballroom B-D

Cogan Award will be presented to Reza Dana, MD, MPH, Schepens Eye Research Institute, Harvard University. Lecture: “Corneal Antigen-Presenting Cells: Diversity, Plasticity and Disguise”

SYMPOSIA

Symposia of broad scientific interest will be held Sunday, May 4 through Thursday, May 8, 2003. Refer to the *Program Summary Book*, CD-ROM, and the ARVO website (after February 17, 2003) for a detailed description of the contents of each symposium and the speakers. Namebadges are not needed to attend the Sunday Symposia.

Sunday, May 4

8:30 am–10:30 am Ballroom A/B

Genetics and Epidemiology of the Major Eye Diseases

A review of advances in the genetics and epidemiology of the major causes of vision impairment in the world. Speakers will review the current state of research on these diseases noting: 1) the prevalence in and impact on societies; 2) the state of our understanding of the causes both genetic and environmental; and 3) potential and actual events of study for clinical applications to cure or prevent them. All of the speakers are active researchers in the area of genetics and/or epidemiology of the topic that they are presenting.

8:30 am–10:30 am

Ballroom C/D

The Roles of Host Immune and Microbial Factors in the Pathogenesis of Ocular Infection

Reviews and new information on the host immune factors and microbial factors that mediate pathology during viral, bacterial, and parasitic infections. This overview of pathogenesis should appeal to those interested in a wide range of infectious diseases of the eye.

11:00 am–1:00 pm

Ballroom A/B

Guidance of Developing and Regenerating in the Visual System

During the past few years, many of the mechanisms that enable developing retinal ganglion cells to reach their targets in the brain have been elucidated. Based on this information, strategies are now being developed to promote regeneration of retinal ganglion cell axon after the optic nerve is injured in adults.

11:00 am–1:00 pm

Ballroom C/D

Ocular Wound Healing

Updating of data on wound healing in the eye. Involvement of normal/abnormal healing process in ocular pathology and evaluation of the current therapeutic possibilities to affect wound healing to treat ocular disease.

2:30 pm–4:30 pm

Ballroom A-D

Basic/Clinical Science Lecture: Geneticists View of the Visual System

The American Society of Human Genetics (ASHG) will bring a genetics overview and updates of genetics research in the visual system. The major genetic and genomic approaches (molecular, biochemical, epidemiologic, and clinical) will be addressed by leaders in the field of human genetics. By providing some background content as well as current research, we hope to promote collaborations between members of ARVO and ASHG.

5:00 pm–7:00 pm

Ballroom A-D

Keynote Symposia

Watch the web site and e-mails for details.

MINISYMPOSIA

After February 17, refer to the ARVO web site (www.arvo.org), *Program Summary Book* and CD-ROM for full descriptions, times and locations.

New Molecular Technologies in Ocular Oncology—AP

The Story is Not Black and White: The Biology and Chemistry of Cone Photoreceptors—BI

Past, Present, and Future Developments in Genetics and Genetic Epidemiology—CL and BI

Genetics and Genomics in Visual Development—EY

Progressive Structural & Functional Injury in Glaucoma—GL

Alpha-crystallin Structure, Evolution and Biological Function—LE

Program

**Cell Fate: Signaling From Proliferation to Apoptosis—PH
RPE Wound Healing—RC**

**The Repair of Primary Retinal Detachment over 75 years:
Surgical and Pharmaceutical Options and Outcomes—RE
Shape Coding in the Central Visual Pathway—VI and VN**

WORKSHOPS/SIGS

Special Interest Groups (SIGs) and Exhibitor Product Presentations (EPPs) will be scheduled throughout the Meeting week. See Meeting publications and the ARVO website for details. All SIG presenters and attendees must register for the Annual Meeting. All Sessions are open to all attendees unless otherwise stated. Workshops planned by ARVO Committees are described below.

Sunday, May 4

1:00 pm–2:30 pm Room 305

Your Career Vision: Focusing on the Future

Organized by the Diversity Issues Committee

It's often said that hindsight is 20/20, but what about your future? Careful planning can help scientists to achieve their career goals more quickly, and to develop successful and rewarding future careers. This 90-minute interactive seminar will explore the diversity of career options available to scientists. Educational and skill requirements for various positions will be addressed. Furthermore, the definition of "success" will be discussed so that each scientist can tailor his or her plans to his or her definition of success. Finally, this seminar will provide participants with some methods for researching various career opportunities, to find careers that match well with their talents and personalities, as well as their skills and education. Scientists can do much to plan their futures and have successful careers and rewarding lives.

1:00 pm–2:30 pm Room 114

Science and the Marketplace: A Common Future

Organized by the Commercial Relationships Committee

Clinical approaches to diagnosis and treatment of eye diseases as well as general laboratory techniques utilized in basic research have been impacted by (i) the Supreme Court decision in 1980 opening the door for patenting of biological materials, (ii) the growth of the pharmaceutical and biotechnology industries and (iii) the gains of the Human Genome Project. Now, more than ever, the line between Science and the Marketplace is disappearing. In this workshop, the scientist or clinician will first learn how they fit into the patent system, both as an inventor and user. Second, the research exception to patent infringement is changing and routine research activities must be re-evaluated. Third, the patent system is evolving into a global system of intellectual property protection that requires strategic planning. By the end of the workshop, the scientist and the clinician will better understand how the advancement of scientific discoveries and innovations benefit from the union of Science and the Marketplace.



Monday, May 5

1:45 pm – 3:15 pm Room 114

Evolving Tools In Ocular Research: Transgenic and Knockout Technologies

Organized by the Animals in Research Committee

Over the past few decades gene manipulation has moved from science fiction to scientific reality. The use of genetically modified animal models continues to provide us with valuable insights into gene expression and the molecular origin of some diseases. Ocular research in particular, has benefited by many of these advancements. Genetic models are routinely being used to expand our knowledge of the lens, cornea, retina and immunology of the eye. This seminar is designed to provide both an overview of the current state of the art and insights into future models for ocular research.

1:45 pm – 3:15 pm Room 305

International Advocacy Symposium

Organized by the Advocacy Committee

ARVO has been very successful in persuading the US Congress to increase its support for eye and vision research through substantially increasing funding for the National Eye Institute of the NIH. While all members of the eye and vision research community, including those from outside the US, benefit from increased funding from the NEI within the US, the Advocacy Committee strongly believes that similar efforts, adjusted for the specifics of individual countries and/or regions, can favorably influence appropriation or availability of funds for vision research internationally. Although the International Society for Eye Research (ISER) has not engaged in such activities, it also recognizes the need and present opportunities for these efforts globally. Accordingly ARVO and ISER are jointly sponsoring the first Symposium on International Advocacy For Vision Research Funding, so that US and International ARVO members and attendees can learn from and exchange ideas with each other and begin to establish forums and formats for approaching government and private entities in non-US venues to request increased funding for vision research.

Program

1:45 pm – 3:15 pm

Palm A

Ethics Symposium

Orchestration of Business and Science: Protection of Patient Rights, when Developing and Testing New Drugs in the Public Interest.

Organized by the Ethics and Regulations for Clinical Research Committee

The annual symposium will focus on issues relating to ethics, regulations, social interest, public support of development costs, and business concerns surrounding the development and testing on human subjects of new pharmaceutical agents and devices, as well as documenting new uses for established therapeutic modalities. It will consist of presentations by Dr. Wiley Chambers, Deputy Director for the Division of Anti-Inflammatory, Analgesic and Ophthalmologic Drug Products, Food and Drug Administration and by Jeff Wells, Pharm.D., M.B.A., Vice President for Clinical and Regulatory Affairs, Santen, Inc. to introduce the perspective of the FDA and of the pharmaceutical industry respectively. Dr. Gary Holland (Jules Stein Eye Institute, UCLA) will lead a panel discussion that includes these speakers and members of the ARVO research community who participate in this type of human research.

1:45 pm – 3:15 pm

Room 315

NEI Grants Workshop

National Eye Institute program staff will present new initiatives and opportunities for research and funding. The session is directed at all investigators, both experienced and new. The topics will include Small Grants for Pilot Research, Collaborative Research on Therapy for Visual Disorders, Small Business Opportunities, extramural involvement in the NEIBank, new training opportunities, and many other new initiatives from the NEI. Following the presentations, NEI staff will be available to answer questions and to further discuss new NEI funding opportunities. NIH Investigators are also invited to visit the NEI Booth located in the Exhibit Hall to obtain additional information about the NEI funding programs. An NEI representative will be available at the booth during the exhibit hours.

Tuesday, May 6

1:45 pm–3:15 pm

Room 315

International Members Forum

Organized by the International Members Committee

International members and attendees are invited to this forum where participants will be given the opportunity to present and discuss issues that they would like the International Membership Committee and the ARVO Board of Trustees to address.

1:45 pm–3:15 pm

Room 305

Career Planning Workshop for Postdocs and Students

Organized by the Members-in-Training Committee

This is a new event, whose purpose is to assist postdocs and

students in their transition to a permanent career track.

Four senior investigators, with experience in the pharmaceutical industry & government (M. Jaffee), intellectual scientific property (M. McLaren), academia in Europe (A. Kijlstra, The Netherlands), and academia in the US (L. Takemoto) will be members of a panel. Each member will speak for 5 minutes about their experiences, advice, motivations, etc. in their scientific careers, to be followed by a discussion with the audience.

Wednesday, May 7

12:00 pm–4:00 pm

Lobby D

Career Fair

Organized by the Members-in-Training Committee.

Potential employers from academia, institutions, industry and government will be available to discuss career and training opportunities at their organizations. Open to all registrants. Employers are encouraged to participate. See the ARVO Career Center on the website for further information.

1:30 pm–3:00 pm

Ballroom A

Clinician Scientist Forum

Career development issues for young clinician-scientists will be discussed. Topics will include: NEI programs for clinician scientists including loan repayments; So you want to be a clinician scientist?; Practical issues facing the clinician-scientist; Funding sources and relationship with industry; The KO8 process from the perspective of a KO8 recipient; and Current status of the clinician scientist. Presenters will respond to questions from the audience.

1:30 pm–3:00 pm

Palm A

NIH Grants Workshop—The Grant Review Process

This grant workshop is sponsored by the NIH Center for Scientific Review (CSR) and is designed to inform applicants about the NIH peer review system. Information will be provided on what happens to your grant after you put it in the mail, and what you can do to facilitate the process. The Scientific Review Administrators for the Visual Sciences A, B, and C Study Sections will present a mock study section meeting to demonstrate how a review is done. This will highlight what reviewers are looking for and point out common problems in grant applications. CSR staff will also be available at the CSR booth in the Exhibit Hall.

1:30 pm–3:00 pm

Room 315

IOVS Workshop

This two-part workshop begins with a presentation by ScholarOne, developers of Manuscript Central, the online submission program for IOVS. Representatives from ScholarOne will teach IOVS authors to prepare and submit online movies and supplemental materials for electronic publication. The second part of the workshop will be led by Dr. Robert N. Frank, Editor-in-Chief of IOVS. Dr. Frank will answer questions regarding peer review and subject selection for IOVS authors. A must attend workshop for all!

Program

Thursday, May 8

12:30 pm–2:30 pm Palm B

Pizza with a Prof

Organized by the Members-in-Training-Committee

Great opportunity to have informal discussions over lunch with senior researchers who will host tables of up to 10 people.

Advance registration is required. See the ARVO website to register and select your favorite topic and prof. Space is limited, so sign up early.

1:30 pm–3:00 pm Room 114

JOV Workshop

All interested ARVO members are invited to attend this hands-on workshop on the *Journal of Vision*. Editor-in-Chief Andrew Watson, PhD, will demonstrate the journal's multimedia and hypertext features and will describe the submission and production processes. Authors will learn how to make use of the latest technology when preparing their manuscripts for *JOV*. An interactive question-and-answer period with Dr. Watson will follow the presentation.

BUSINESS MEETINGS

Section Business Meetings

Each of ARVO's 13 Scientific Sections will hold a Business Meeting at the Convention Center. The exact time and location of each meeting will be featured in the *Program Summary Book* and *Meeting Update*. Members are urged to attend his or her Section's Business Meeting to offer suggestions and opinions as to the future direction of ARVO, comment on current activities, and vote for Trustee nominations and/or Program Committee representatives, if applicable. This year the following Sections must nominate candidates for the 2004 Trustee election from the IM, RC, and VI sections. Those ARVO members (Regular, Family Sustaining, Life, and Family Life) of the above listed Sections are eligible to nominate individuals to be considered for Trustee. There are no geographical restrictions.

General Business Meeting

The ARVO General Business Meeting will be held Wednesday, May 7, 2003, from 12:35 pm–1:15 pm in Room 305. President Robert N. Weinreb, MD, will introduce the Trustees and Officers of the Association and provide an update on the Annual Meeting and other Association issues. Special Recognition Awards will be presented to Trustees whose terms have ended.

EXHIBIT PROGRAM

2003 marks the 9th year that the Association for Research in Vision and Ophthalmology will have a full Exhibits Program.

Plan now to participate in this educational dimension of the ARVO Meeting by visiting the booths of over 100 companies. Both scientific research and sales staff will be in attendance to discuss their products, services, and research efforts. Exhibits of the most

advanced laboratory equipment, supplies, books, and journals will be on display in Hall B/C of the Convention Center, Sunday, May 4, through Wednesday, May 7, from 9:00 am–4:00 pm. Space may still be available. Contact the ARVO Exhibits Manager, Tony Maiorino, Scherago International Inc., 11 Penn Plaza, Suite 1003, New York, NY 10001, Phone: 212-643-1750 ext. 22 or E-mail: tonym@scherago.com or www.scherago.com/ARVO. A list of exhibitors, many with links can be found at www.arvo.org.

ANCILLARY EVENTS

Ancillary groups that wish to conduct business, such as a board meeting, or to hold a social event during the ARVO Annual Meeting at the Headquarters Hotels (Marina Marriott, Hyatt Pier 66, or Marriott's Harbor Beach) should contact those hotels directly for space.

Ancillary groups who wish to hold such events in the Convention Center should contact the ARVO Meeting Manager, Marcella Jackson, OSMC, 9650 Rockville Pike, Bethesda MD 20814, 301-530-7010, who will handle arrangements on request. The deadline for receipt of information to be listed in the *Program Summary Book* is January 31, 2003.

Note: Companies, manufacturers, and publishers wishing to schedule special events in the Convention Center must be participating in the ARVO Exhibits Program.

SOCIAL ACTIVITIES

75th Anniversary Celebration Social

Sunday 7:00 pm–8:00 pm Grand Floridian A-H

All ARVO members and meeting attendees are invited to celebrate ARVO's 75th Anniversary. Watch the ARVO website and e-mails about this exciting event!

Students/Members-in-Training Social

Monday 7:30 pm–8:30 pm Palm B

All trainees attending the Meeting are encouraged to attend this reception to honor the Research and Travel Grant Awardees. This is a great opportunity to find old friends, make new ones, and meet some of ARVO's leaders. Sponsored by the Members-in-Training Committee.

ARVO Rocks!

Monday 8:00 pm–10:30 pm Hyatt Pier 66

Come join in the fun at the first Annual ARVO Rock Concert featuring ARVO members. There is no charge to attend this event. Watch for details on the web site and in the *Program Summary Book*.

ARVO Classical Concert

Wednesday 8:00 pm–9:30 pm Hyatt Pier 66

The annual ARVO Classical Concert will be performed by ARVO members. Watch for specific details in the *Program Summary Book* and *Meeting Update*. There is no charge to attend the concert.

General Meeting Information

Meeting Dates and Headquarters

The Association for Research in Vision and Ophthalmology (ARVO) will meet Sunday, May 4, through Friday, May 9, 2003, in the Greater Fort Lauderdale/Broward County Convention Center, 17th Street and Eisenhower Boulevard, Fort Lauderdale, Florida. The Scientific Program begins Sunday, May 4, at 8:30 am and concludes Friday, May 9, at 12:30 pm. All Scientific Sessions, registration activities, exhibits, and related activities will take place at the Convention Center. Ancillary functions will be scheduled at the Headquarter Hotels—Hyatt Pier 66, Marina Marriott, Marriott's Harbor Beach Resort—and at the Convention Center.

ARVO Information Center

The ARVO Information Center will be located in Hall B/C of the Convention Center and will operate during registration hours. The Center will respond to questions about membership issues, sessions and events, and use of the computerized Message Center.

Attire

As in years past, we encourage you to dress casually and comfortably. Attendees may wish to utilize the “layered look” in order to deal with air conditioning systems in the Meeting rooms that must constantly adjust to changing numbers of people as well as to varying levels of outside heat and humidity. Bring a sweater or a long-sleeve shirt or blouse to use in the Convention Center.

Business Center

Located in the Convention Center, the Business Center is situated on the first floor next to the entrance to Hall A. The Business Center will open Saturday through Friday at 8:00 am and close 30 minutes after the end of the last session. It will feature a diverse list of services and products: computer rental; express delivery service; copying and office products. For a charge, fax messages for attendees will be received by the Business Center at 954-765-5957. Faxes may also be sent, for a fee, from the Business Center.

Cash Machine

A cash machine is located in the lobby of the Convention Center. The machine accepts bankcards from MasterCard, and those on the Cirrus and Plus Network.

Coat and Luggage Check

A coat and luggage check area will be available in Hall B/C. There is a nominal charge of \$1 per item. The area will be open Saturday, 1:00 pm–4:30 pm; Sunday–Tuesday, 7:30 am–8:00 pm; Wednesday–Thursday, 7:30 am–6:15 pm; and Friday, 7:30 am–12:30 pm.

Food Service

Food service will be available in Hall B/C of the Convention Center, Sunday–Tuesday, 7:30 am–8:00 pm; and Wednesday–Thursday, 7:30 am–6:30 pm. In addition, food service carts will be available throughout the Center for lighter fare through noon on Friday.

Individuals with Disabilities

The Greater Fort Lauderdale/Broward County Convention Center is accessible to the disabled. Registrants with questions regarding special housing, transportation, and auxiliary requirements should contact the ARVO Meeting Manager, OSMC, 9650 Rockville Pike, Bethesda, MD 20814-3998, Phone: 301-530-7010 or Fax: 301-530-7014. Prior notification is needed to ensure that arrangements will be made ahead of registrant's arrival. This Meeting is accessible to all people.

Internet Access

Included in the expanded Convention Center space will be a Cyber Cafe. This facility will offer Internet accessibility for Meeting attendees to check e-mail or surf the web (time limits will be enforced). Additional computers are located at the New Millennium Station, 1422 SE 17th Street, Fort Lauderdale, FL 33316, Tel: 954-763-5721, \$6–\$9.

Computers in the ARVO Registration Area are for designated purposes: accessing the Program Search, the Message Center, etc., and may not be used for any other types of Internet access.

Prayer/Mediation Room

- The Jewish Ophthalmology Association, Rofei Anayim, will meet in Room 213 in the Convention Center at 5:00 pm each day, in order to organize the Mincha (afternoon) prayer service, as well as to facilitate and assist ARVO attendees (and spouses) with transportation to Kosher restaurants.
- Other attendees who wish to reserve space for prayer or meditation should contact the Meeting Manager in Room 221 for availability.

Childcare

Childcare services are available through My Nanny & Home Services Inc. All of the Service's sitters are screened through an extensive background investigative process. Individual or group sitters can be arranged. Advance reservations are strongly recommended to ensure availability. For rates and further information contact, My Nanny & Home Services Inc., 4524 Gun Club Road, Suite 211-C, West Palm Beach, FL 33415, Phone: 561-471-9971, Fax: 561-471-9972. As an additional source, the concierge at many of the participating hotels can provide you with a list of babysitting services.

Neither ARVO, nor the Federation of American Societies for Experimental Biology as meeting management, assumes responsibility with respect to this service and accepts no liability relative to the service.

Fort Lauderdale/Hollywood Information Desk

Useful information on local sights, city maps, the water taxi, activities, restaurants, and much more may be obtained at the Fort Lauderdale/Hollywood Information Desk, located outside of Hall B/C of the Convention Center. The Information Desk will have menus from local restaurants on hand and will also assist in making dinner reservations.

General Information

Events and Tours—

Discovering Greater Fort Lauderdale

See page 24 for full descriptions of local attractions and tours offered by FLT Tours to Miami, Orlando, and other destinations. FLT Tours will be located in Lobby B/C of the Convention Center.

Restaurants

Visit the Fort Lauderdale Information Desk for help locating restaurants. For a list of Kosher Restaurants in the Fort Lauderdale area, including location and prices, see www.arvo.org/Meetings/kosher.asp or www.sunny.org.

Audiovisual (AV) Support

AV Support Room

Room 122 will be available from 7:30 am–4:00 pm Saturday, 7:30 am–8:00 pm Sunday through Tuesday, 7:30 am–6:30 pm Wednesday and Thursday, and from 7:30 am–10:45 am on Friday for presenters to verify presentation compatibility or preview their slides. This is not a practice room. A technician will be present in the room to operate the equipment.

Paper Session Presentations

- Computers and projection equipment will be provided by ARVO in each paper session room. Equipment specifications will be available online at www.arvo.org/Abstracts/popaguidelines.asp. Presenters must verify presentation compatibility in Room 123, at least one day in advance.
- Presenters may bring their own laptops and connect to the projection equipment. Specifications will be available online at www.arvo.org/Abstracts/popaguidelines.asp. Presenters may also arrange to rent laptops (AV Support Office, Room 123) the day before their presentations. Keystone Computer Rentals will be available in the AV Support Office to rent laptop computers. Contact Jennifer Weaver at jweaver@keystone-rentals.com or call 407-352-8030 to arrange a laptop rental in advance.
- Presenters using slides should go to the AV Support Room prior to their session to preload the slides in a carousel. Take the carousel to the projectionist prior the start of the session. Neither ARVO nor the projectionist is responsible for slides left behind by the presenters.

AV Order Form

AV Order Forms for paper or poster presentations are available at www.arvo.org/membership/forms.asp. Deadline for advance orders for AV is **March 14, 2003**. Orders for AV equipment will be accepted onsite in Room 123; however, there is no guarantee of equipment availability. Poster presenters see laptop rental above.

AV Briefing

First-time moderators and paper presenters are encouraged to attend a briefing on Saturday, May 3, 2003 at 3:00 pm in Room 114. The briefing, conducted by the audiovisual technicians, will familiarize first-time moderators and paper presenters with audiovisual equipment and timers.

Housing

Reservations

Many of the hotels participating in the ARVO housing block have proven to be very desirable to ARVO participants and often a wait list is established for those wishing to reserve a hotel room. Visit the **Online 2003 Housing Application at www.arvo.org** for participating hotels.

Before March 21, 2003

Reservations must be made through the online ARVO Housing Bureau only. **Do not contact the hotels directly.**

An acknowledgment of your reservation request will be sent by the ARVO Housing Bureau within a two-week period. Check the accuracy of your acknowledgment. **You will NOT receive a separate confirmation from your hotel.** Please be sure to print a copy of your acknowledgment. **If you do not receive an acknowledgment number, the ARVO Housing Bureau did NOT receive your reservation.**

Booking Policy: You are required to supply a valid credit card number to guarantee a reservation (for a 4:00 PM EDT arrival). A first and last night's deposit may be required by the hotel to hold your reservation. Contact the ARVO Housing Bureau directly to make payment arrangements by check.

Cancellation Policy: All cancellations must be received in writing and will be issued a cancellation date and number. Cancellations made **after March 21, 2003** will result in a **\$50.00 non-refundable penalty** and may also result in forfeiture of a two night's deposit charged at your hotel's discretion.

Changes/Early Departure Policy: Access your reservation online at www.arvo.org **OR** contact the ARVO Housing Bureau in writing via fax, e-mail, or mail **through May 1, 2003**. Please reference your acknowledgment number. An early departure penalty may be charged at your hotel's discretion if a minimum night stay is required.

Should you have any questions or concerns regarding these policies, please contact the ARVO Meeting Management Office at 301-530-7010.

After March 21, 2003

Reservations are conditional on room availability with no guarantees. Housing Bureau representatives will be in the Convention Center, Hall B/C, beginning Saturday, May 3 at 8:00 am.

Room Sharing

If you are interested in finding a person to share a hotel room, please mail or fax your name, address, telephone/fax number, e-mail address, arrival date, departure date, gender, and gender preference along with a signed letter of request to the ARVO Meeting Manager, 9650 Rockville Pike, Bethesda, MD 20814-3998, Fax: 310-530-7014 no later than March 7, 2003. A complete list of names and addresses will be sent to you. It is your responsibility to contact these individuals. ARVO and FASEB employees assume no responsibility with respect to this service and accept no liability relative to the service.

Registration Information

Everyone attending scientific sessions or the exhibits at the Annual Meeting, whether or not an ARVO member, invited speaker, or guest of a presenter, must register and pay the appropriate fees. Onsite registrants will be issued namebadges at time of registration.

Advance Registration

The Advance Registration deadline is April 11. Advance registrations will not be accepted or processed after April 11. After April 11 register onsite. *Note:* Becoming an ARVO member or having an abstract accepted for presentation at the Annual Meeting does NOT mean that you are registered. All First Author/presenters must register.

Online: Go to www.arvo.org to register online.

Faxing: ARVO is not responsible for faxes not received due to mechanical failure or circumstances beyond our control. Due to the high volume of faxes received and limited staff, we are unable to confirm fax receipt. Keep a copy of your fax status report. If you require confirmation of receipt, we recommend you send your forms by overnight carrier.

Refunds: Up to 75% of an advance registration will be refunded if a written request and namebadge are received in the ARVO Office **by April 29, 2003.**

Student Nonmember Status Certification: A full-time student (predoctoral fellow, resident, or other postdoctoral) *nonmember* advance registrant must have a supervisor complete the Student Nonmember Status Certification (Section B) on the Registration Form to obtain the reduced fee. A full-time student *nonmember* registering onsite must have a letter (written by a supervisor on official institutional letterhead), or a Student ID Card confirming their student status, to obtain the reduced fee.

Onsite Registration

For those whose registration is not received by April 11, Onsite Registration will be located in Hall B/C of the Convention Center. See also Student Nonmember Status Certification requirements under Advance Registrations. Onsite registration hours:

Saturday, 5/3 1:00 pm–4:00 pm
Sun., 5/4–Tues., 5/6 7:30 am–7:30 pm
Wed., 5/7–Thurs., 5/8 7:30 am–6:00 pm
Friday, 5/9 7:30 am–11:30 am

Namebadges

Namebadges must be in view beginning at 7:30 am on Sunday, May 4 in poster and exhibit areas. *Namebadges are not required to attend Sunday Symposia scheduled before 1:00 pm.*

This year namebadges will contain a bar-code which our Exhibitors may scan to capture your contact information so they can follow-up with you on their products and services. If you do not wish to be contacted for follow-up, you may decline having your badge scanned.

Advance Registrants who register by April 11:

- will be mailed namebadges, beginning March 5, and should pick up the *Meeting Update* throughout the registration area.
- advance registrants who do not receive their namebadges in the mail must go to the Advance Registration Desk located in Hall B/C of the Convention Center.

Guest Registration

Guests (spouses/domestic partner/immediate family) can register for one day only and receive a day-specific bracelet at the Onsite Registration Area of Hall B/C in the Convention Center. **ARVO members or authors/co-authors on abstracts may not register as a guest.** The registered ARVO attendee must accompany his or her guest at the time of guest registration. A fee of \$20 per person for guest registration will apply.

Exhibitor Registration

The Exhibitor Registration Desk in Hall B/C will be open during installation of exhibits on Saturday, May 3 from 8:00 am–4:00 pm. Exhibitors must have namebadges to enter the exhibit area. Exhibitors will be given the opportunity to register their representatives in advance, but badges will not be mailed in advance to exhibiting companies. All badges must be picked up onsite.

Press Registration

Press credentials are granted to individuals who are on assignment for, or employees of, a media outlet appropriate to the coverage of eye and vision research news. All requests for press credentials are subject to the approval and the discretion of the Project Manager. ARVO members who are also Press must complete regular Meeting Registration. Advertising, sales, public relations, or marketing personnel will not be allowed to register as press representatives, although such personnel may register for the Meeting and pay full price. Press Registration will be located at the ARVO Information Desk in Hall B/C and will be open Saturday, May 3, from 1:00 pm–4:00 pm, Sunday, May 4 through Tuesday, May 6, from 7:30 am–7:30 pm, and Wednesday, May 7 and Thursday, May 8 from 7:30 am–6:00 pm.

7th Annual Vision Research Conference

The Retinoid Cycle and Retina Disease

May 2–3, 2003, Fort Lauderdale

The Retinoid Cycle describes phenomena involved in metabolism and transport of retinoids from the outer segments across the IPM to the RPE and back to the outer segment where rhodopsin is reconstituted. Recent progress in identification of components involved in recycling of retinoids has been unprecedented. Mutations in their respective genes have been shown to lead to disruption of the retinoid cycle and in many cases to human retina disease including retinitis pigmentosa, choroidal sclerosis, cone/rod dystrophy, macular degeneration, among others. The purpose of the meeting is to summarize current knowledge regarding mechanisms of photobleaching in rods and cones, and the metabolism of retinoids in photoreceptors and the RPE. Particular emphasis will be given to explore gene defects leading to human retina disease, and to investigate naturally occurring and laboratory generated animal models for these diseases.

Organizers: Wolfgang Baehr, University of Utah; Alan C. Bird, University of London; Krzysztof Palczewski, University of Washington; Samuel L. Wu, Baylor College of Medicine.

The Call for Posters has been mailed. Go to www.visres-interactivemeeting.com for details. Deadline for submission is February 7, 2003.

Requests for information or questions can be directed to +44 (0) 118 377 4696, Fax 44 (0) 118 377 4696, or E-mail visionresearch@ntlworld.com.

Transportation/Parking

Air Travel

There are special discounts on domestic group fares from **Delta** and **US Airways**, ARVO's official airlines. Special zone fares are available from **US Airways**. Whether you book directly or through a travel agent, use the toll-free number and ARVO File Number when arranging travel to Florida. You or your travel agent should call today, since seats may be limited.

Delta Airlines

800-241-6760 or 404 715-3855
ARVO File #189258A

USAirways

877-874-7687
Gold File #19612468

Note: Attendees from outside North America may wish to work with convention tour companies in their countries to secure the best travel rates. For a list of travel companies in Japan and Italy, see the ARVO Web page at www.arvo.org/meetings/meetgrid.asp.

Traffic Alert

Coinciding with the beginning of ARVO, Fort Lauderdale will host the US Armed Forces Air and Sea Show. Some traffic shifts could affect ease of movement along the beachfront. Watch the ARVO website for updated info prior to the Annual Meeting.

Rental Cars

Special discounts are offered by **Avis, Budget, and Thrifty**. Parking at the Convention Center will be free but some hotels charge guests for overnight parking. If flying to Miami, take the Super Shuttle or other local transportation to your Fort Lauderdale hotel and arrange to pick up a rental car there.

Budget

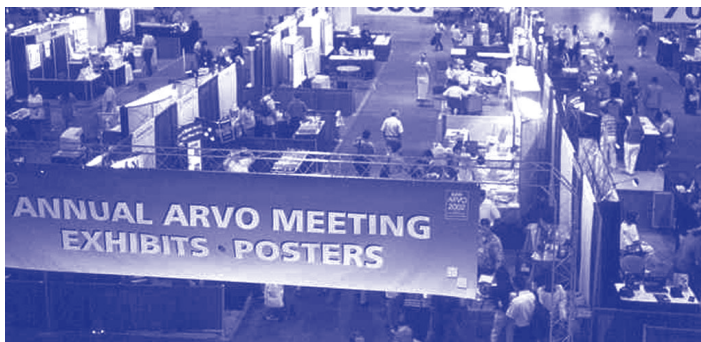
800-772-3773
Overseas Participant Reservation Fax: 972-776-4393
ARVO File #U061024
www.budget.com

Avis

800-331-1212 or 918-664-9600
ARVO File #K241538

Thrifty

800-THRIFTY
ARVO File # PC34LL
www.thrifty.com



Parking

Although attendees are urged to use the ARVO Shuttle Buses for transportation between participating hotels and the Convention Center, free parking is available to ARVO attendees in the garage adjacent to the Convention Center (see Transportation below for hours). The garage, which can accommodate up to 2,500 vehicles, must be entered from Eisenhower Boulevard. Parking coupons will be distributed onsite to attendees in the *Meeting Update*, and at the Fort Lauderdale/Hollywood Information Desk. Remember to present a coupon upon exiting the parking garage, or you will be charged. Bicycle racks are adjacent to the Convention Center main entrance.

Airport

The approximate charge for taxi service from the Fort Lauderdale Airport to the beach area is \$15 to \$30 per person. A Shared-Ride service will be available at an approximate cost of \$7 to \$12 per person. Taxi and Shared-Ride services are located at kiosks outside of each terminal's baggage claim area. Limousine service for approximately \$70 is available by calling Tri-County Airport Express in advance at 954-581-8888.

Attendees are encouraged to fly into Fort Lauderdale. However, if arriving at **Miami International Airport**, the Super Shuttle bus to take you to your Fort Lauderdale lodgings will be available at a cost of \$25 to \$40 per person. A Super Shuttle representative (wearing a yellow shirt) will be located at the van service curb outside of each terminal's baggage claim area to assist you. Tell the Super Shuttle attendant that you are going to ARVO in Fort Lauderdale and where you will be staying. The attendant will try to form groups of five or more to expedite your trip. The trip will take 1 to 2.5 hours depending on the time and day of your arrival. Twenty-four hours prior to your return flight you will need to call 305-871-2000 to arrange for the Super Shuttle to transport you back to Miami. Pregrouping five or more passengers will expedite your trip.

A taxi ride from Miami International Airport to Fort Lauderdale will cost approximately \$80; kiosks are outside baggage claim areas. A limousine will cost approximately \$90 and may be ordered in advance by calling Tri-County Airport Express at 954-561-8888, or Limousines of South Florida, 305-940-5252 or 800-782-5250.

Shuttle Buses to Convention Center

The ARVO Shuttle Bus will offer service between all participating properties (see Housing Matrix for properties) and the Convention Center on Saturday, May 3, from 7:00 am–6:00 pm; Sunday, May 4–Tuesday, May 6, 7:00 am–8:30 pm; Wednesday, May 7–Thursday, May 8, 7:00 am–7:00 pm; and Friday, May 9, from 7:00 am–1:00 pm. Hotels participating in the shuttle Program will have Shuttle Bus schedules.

Convention Center to Airport

Pending final program, ARVO is planning a Thursday evening and Friday morning shuttle to the Ft. Lauderdale airport. See the *Meeting Update* for details.

Students, Post-grads, Fellows and Residents

Don't miss these exciting sessions and events that are open to everyone, and specifically designed to enrich your 2003 Annual Meeting experience.

Sunday, May 4, 1:00–2:30 pm Room 305

Your Career Vision: Focusing on the Future

Workshop on scientific career development, presented by Chandra Louise, PhD (p. 14)

Sponsored by the Diversity Issues Committee

Monday, May 5, 1:45–3:15 pm Room 315

NEI Grants Workshop

NEI representatives will discuss new initiatives and opportunities for research, training and funding. (p. 15)

Monday, May 5, 7:30–8:30 pm Palm B

Members-in Training Social

Honoring the Travel and Research Fellowship Grantees

A great opportunity to network with your peers!

Sponsored by the Members-in-Training Committee

Tuesday, May 6, 1:45 pm–3:15 pm Room 305

Career Planning Workshop for Postdocs and Students

Panel discussion on transitioning to a permanent career track with representatives from industry, government, intellectual scientific property and academia. (p. 15)

Sponsored by the Members-in-Training Committee

Wednesday, May 7, 12:00–4:00 pm Lobby D

ARVO Career Fair

Potential employers from academia, industry and government will be available to discuss career opportunities. (p. 15)

Sponsored by the Members-in-Training Committee

Wednesday, May 7, 1:30–3:00 pm Ballroom A

Clinician-Scientist Forum

Panel discussion on career development issues, opportunities and funding sources for young clinician-scientists. (p. 15)

Wednesday, May 7, 1:30–3:00 pm Palm A

NIH Grant Review Process

Understand the peer review process and experience a "Mock Study Section." (p. 15)

Presented by the NIH Center for Scientific Review (CSR)

Thursday, May 8, 12:30–2:30 pm Palm B

Pizza with a Prof

Senior scientists will host tables of 10 to explore various topics including scientific research, career goals, women and racial minorities in science. This is a great opportunity! Advance registration is required. Watch the ARVO website for details.

Sponsored by the Members-in-Training Committee

2003 ARVO Education Course

Conditional Gene Targeting

This informative Course is open to members and non-members, but there is limited space and advance registration is required. *Note:* Course registration is not part of the Annual Meeting registration.

Location: Fort Lauderdale/Broward County Convention Center

Registration: Advance registration is required by April 11, 2003, as space is limited. Use the Meeting Registration Form at www.arvo.org or page 25. There is no onsite registration.

Includes breaks and lunch for full day.

Course Materials: Namebadges and course books must be picked up onsite the day of the course.

CME: Continuing Medical Education (CME) credit will be available for a fee through FASEB.

Conditional gene targeting techniques allow for disruption of a target gene in specific tissues or at a particular time. Similar techniques are also used to "knock-in" subtle alterations such as point mutations into genes of interest. These techniques will be of increasing importance for creating accurate models of eye diseases, and for investigating the functions of genes that participate in eye growth and development. The goal of this course is to bring participants up to date with current techniques for conditional gene targeting. Topics to be covered include conditional gene targeting approaches, site-specific recombinase systems such as Cre/lox & Flt/frt, new techniques for targeting vector construction, mouse embryonic stem (ES) cell lines, and application of conditional gene targeting techniques to the study of vision and sight threatening diseases.

A. Conditional Gene Targeting Techniques

Site-specific Recombinases and Conditional Gene Targeting, *Brian Sauer, PhD*

A Highly Efficient Recombineering-Based Method for Generating Conditional Targeting Constructs, *Neal Copeland, PhD*

ES Cell Characteristics, Lines, Manipulations, TBA
Cre/Flp Reporter Mice, TBA

Conditional Somatic Mutagenesis in the Mouse Using Ligand-inducible Cre Recombinases, *Daniel Metzger, PhD*

B. Examples of Conditional Gene Targeting for Vision Research

Genetic Evidence for Selective Transport of Opsin by Kinesin II in Photoreceptors, *Lawrence Goldstein, PhD*

Modelling Late Onset Maculopathies in the Mouse—Targeting the Murine Tissue Inhibitor of Metalloproteinases-3 (Timp3), *Bernard Weber, PhD*

2003 ARVO Housing Matrix

Reservations received after the deadline are conditional on room availability with no rate guarantee.

Reservations MUST be made through the Greater Fort Lauderdale Convention & Visitors Bureau (ARVO Housing Bureau) in order to receive ARVO rates. Hotel rates are subject to 6% sales tax and 5% occupancy tax. Some hotels may charge for parking.

Book your reservations online at www.arvo.org. Please contact the ARVO Housing Bureau for suite rates and availability OR if the hotel you stayed at in 2002 is not listed on this matrix.

The Fort Lauderdale Marina Marriott and Hyatt Regency Pier 66 are the headquarter hotels.

All hotels are handicapped accessible *except* Best Western Oceanside and Best Western Marina. Inquire

about accessibility at apartment/efficiency/condominium properties. Most include kitchens with their units (listed below). Please note that kitchenettes are not full kitchens.

Bus transportation from Saturday morning to Friday noon will be available for guests of hotels participating in the service, as indicated by a bullet (●) on this matrix under the Shuttle Service column. Combined pick-up points may be utilized.

Reserve your hotel room, or change a previously made reservation online at www.arvo.org.

Hotels

	RATES				LOCATION		AMENITIES			Minimum night stay required	Shuttle Service	Miles to Center		
	Single	Double	Triple	Quad	Rollaway Bed	Intracoastal	Oceanfront	Pool	Restaurant/Lounge				Data Port in Room/Business Center w/internet connection	
LAS OLAS														
1	Riverside Hotel, 620 E. Las Olas Blvd.	\$139	\$139	\$149	\$159	\$10			●	●	●	4	●	4
CONVENTION CENTER														
2	AmeriSuites, 1851 S.E. 10th Avenue	\$142	\$142	\$152	\$162				●				●	<1
3	Best Western Marina, 2150 S.E. 17th Street	\$119	\$119	\$129	\$139	\$12	●		●	●	●		●	<1
4	Comfort Suites Airport & Cruise Port, 1800 S. Federal Highway (includes continental breakfast)	\$121	\$121	\$131	\$141	\$10			●				●	<1
5	Embassy Suites (Kitchenette), 1100 S.E. 17th St. (includes full breakfast)	\$147	\$147	\$157	\$167	\$20			●	●	●	5	●	<1
6	Fort Lauderdale Marina Marriott, 1881 S.E. 17th Street	\$123	\$133	\$143	\$153	N/C	●		●	●	●		●	<1
7	Holiday Inn Express, 1500 S.E. 17th Street	\$120	\$120	\$130	\$140	\$10					●		●	<1
8	Hyatt Regency Pier Sixty Six, 2301 S.E. 17th Street	\$189	\$189			\$20	●		●	●	●	4	●	<1
9	Renaissance Ft. Lauderdale, 1617 S.E. 17th Street	\$168	\$168	\$178	\$178	\$25			●	●	●	4	●	<1
HARBOR BEACH														
10	Best Western Oceanside, 1180 Seabreeze Blvd.	\$115	\$115	\$125	\$135	\$10			●	●	●		●	1
11	Doubletree Hotel Oceanfront, 440 Seabreeze Blvd.	\$131	\$151	\$171	\$191	\$10			●	●	●	4	●	1
12	Lago Mar Resort & Club, 1700 S. Ocean Lane	\$173	\$173	\$183	\$193	\$10		●	●	●	●		●	<1
13	Marriott's Harbor Beach Resort, 3030 Holiday Drive*	\$210	\$210	\$220	\$230	N/C	●	●	●	●	●		●	4
14	Radisson Bahia Mar Resort, 801 Seabreeze Blvd.	\$119	\$119	\$129	\$139	\$10		●	●	●	●		●	1
15	Sheraton Yankee Clipper Hotel, 1140 Seabreeze Blvd.	\$117	\$117	\$132	\$147	\$20		●	●	●	●		●	1
FORT LAUDERDALE BEACH														
16	Doubletree Guest Suites (Kitchens), 2670 E. Sunrise Blvd.	\$139	\$139	\$149	\$159	\$15	●		●	●	●		●	4
17	Sheraton Yankee Trader Beach Hotel, 321 Ft. Lauderdale Beach Blvd.	\$117	\$117	\$132	\$147	\$20	●	●	●	●	●		●	2.5
40	Ramada Inn Seaclub Resort, 619 N. Ft. Lauderdale Beach Blvd.	\$70	\$80	\$90	\$100	\$10	●		●	●	●		●	2
HOLLYWOOD														
18	Holiday Inn Hollywood Beach, 2711 S. Ocean Drive	\$105	\$105	\$115	\$125	\$10	●	●	●	●	●	3	●	10
19	Howard Johnson Plaza Resort, 2501 N. Ocean Drive	\$105	\$105	\$115	\$125	\$10	●	●	●	●	●		●	7
20	Ramada Inn Hollywood Beach Resort (Kitchenette), 101 N. Ocean Drive	\$85	\$99	\$119	\$119	\$15	●	●	●	●	●		●	10
21	Ramada Plaza Downtown, 1925 Harrison Street	\$99	\$109	\$119	\$129				●	●	●		●	10
22	Westin Diplomat Resort & Spa, 3555 South Ocean Drive	\$199	\$199	\$219	\$239	\$25	●		●	●	●		●	10

* Will collect a first and last night non-refundable deposit upon receipt of reservation.

Note: ARVO and the Greater Ft. Lauderdale Convention & Visitors Bureau cannot assume responsibility for rooms reserved at hotels outside of the ARVO Housing Matrix. All special requests (i.e., oceanview, non-smoking, connecting) cannot be guaranteed by the ARVO Housing Bureau. Requests are assigned by the hotels at check-in. We are not including any hotels or shuttle transportation to Lauderdale-by-the-Sea, Pompano, and Deerfield. Also a listing and map of economy rate hotels in Fort Lauderdale and Hollywood is available at www.arvo.org/03otherhousing.htm. Reservations must be made directly with these hotels and do not include shuttle bus service.

Reservation Deadline:
March 21, 2003
 Reservations Online ONLY
 at www.arvo.org

Hotels with Kitchens, Apartments, Efficiencies, and Condominiums

RATES						LOCATION		AMENITIES				
Hotel Room	Efficiency (Kitchennette)	1 Bedroom (Kitchen)	2 Bedrooms (Kitchen)	Extra Person Charge (Adult)	Intracoastal	Oceanfront	Pool	Restaurant/Lounge	Data Port in Room/Business Center w/internet connection	Minimum night stay required	Shuffle Service	Miles to Center
LAS OLAS/ISLE OF VENICE												
23	Banyan Marina Apartments , 111 Isle of Venice	\$145	\$165	\$225		●		●	●	6	●	2.5
24	Waterfront Inn Island Resort , 91 Isle of Venice	\$109-129	\$119	\$138	\$199	\$10	●	●	●	5	●	2.5
FORT LAUDERDALE BEACH												
25	Days Inn Bahia Cabana Beach Resort and Marina , 3001 Harbor Drive	\$90-100	\$120	\$150				●			●	3
26	Martindale at the Beach Resort , 3016 Bayshore Drive	\$75-80	\$115	\$135	\$175-185	\$10		●		7	●	2.5
27	Nina Lee Imperial House , 3048 Harbor Drive	\$69-87	\$89	\$89	\$99	\$9		●			●	2.5
28	Sans Souci at the Beach Resort , 618 N. Birch Road	\$75	\$85	\$99		\$10		●	●	7	●	2.5
29	Sea Chateau , 555 N. Birch Road	\$70-90	\$80			\$10		●		5	●	2.5
30	Shell Resort at the Ocean , 3030 Bayshore Drive	\$99-129	\$125	\$155	\$235	\$15		●		7	●	2.5
31	The Flag Hotel , 3011 Granada Street	\$99	\$129	\$169		\$15	●	●	●	4	●	2.5
32	The Pillars at New River Sound , 101 North Birch Road	\$150					●	●		3	●	2.5
33	TropiRock Resort , 2900 Belmar Street	\$95	\$110	\$170		\$10		●	●	6	●	5
34	Waterfront Inn Beach Resort , 521 Ft. Lauderdale Beach Blvd.	\$119-139	\$129	\$159	\$209	\$10		●	●	5	●	2.5
35	Winterset Motel & Suites , 2801 Terramar Street		\$72	\$83	\$130-140	\$10		●	●	7	●	2.5
HOLLYWOOD												
36	Greenbriar Beach Club , 1900 S. Surf Road (includes continental breakfast)		\$74-119	\$119-139		\$10		●	●	●	●	7
37	Manta Ray Inn , 1715 S. Surf Road (suites w/kitchens)			\$95	\$130	\$10		●	●	●	●	8
38	Riptide Patio Motel , 2300 N. Surf Road	\$89	\$89-149					●	●	2	●	8
39	Ocean Inn Motel , 3405 N. Ocean Drive	\$65	\$75	\$90		\$10		●	●	3	●	8
41	Grenier's Inn on the Beach , 326 Nebraska St.	\$60	\$65	\$90	\$5	\$5		●	●	5	●	8

Current 2003 reservation holders, for any hotel, will be allowed to reserve a room through the onsite Housing Bureau in the Meeting Registration Area for 2004. Reservations will be accepted for REPEAT guests only: Monday, May 5–Wednesday, May 7, 2003.

Prior to accepting a Housing Form onsite, the housing representative will verify (via the 2003 housing list) that the attendee is, in fact, currently holding a reservation at the SAME hotel they've requested on their 2004 Housing Form.

2004 reservation requests for more than one room will only be honored (onsite) if the reservation holder had reserved the same amount of rooms in 2003 (at the same hotel).

Name changes are not allowed (i.e. a room may not be reserved in the name of someone else not already staying at the hotel in 2003). Also, if a current 2003 reservation holder CANCELS their REPEAT room, they cannot "name change" to help a friend.

Online Reservations will be open for general sale, for any available hotel, for the 2004 Meeting beginning June 2, 2003 at www.arvo.org.



2003 ARVO Hotel Index

FORT LAUDERDALE BEACH/ LAS OLAS BOULEVARD

- 23. Banyan Marina Apartments
- 10. Best Western Oceanside Inn
- 25. Days Inn Bahia Cabana Beach Resort and Marina
- 16. Doubletree Guest Suites
- 11. Doubletree Oceanfront Hotel
- 31. Flag Hotel
- 34. Ft. Lauderdale Waterfront Inns Beach Resort

Ft. Lauderdale Waterfront Inns Island Resort

- 24. Ft. Lauderdale Waterfront Inns Island Resort
- 12. Lago Mar Resort & Club
- 13. Marriott's Harbor Beach Resort
- 26. Martindale at the Beach
- 27. Nina Lee Imperial House
- 14. Radisson Bahia Mar Resort
- 40. Ramada Inn Seacub Resort
- 1. Riverside Hotel
- 28. Sans Souci at the Beach Resort
- 29. Sea Chateau
- 30. Shell Resort at the Ocean
- 15. Sheraton Yankee Clipper Hotel
- 17. Sheraton Yankee Trader Beach Hotel
- 32. The Pillars at New River Sound
- 33. TropiRock Resort
- 35. Winterset Motel & Suites

CONVENTION CENTER AREA

- 2. AmeriSuites
- 3. Best Western Marina Inn
- 4. Comfort Suites Airport & Cruise Port
- 5. Embassy Suites
- 6. Ft. Lauderdale Marina Marriott
- 7. Holiday Inn Express
- 8. Hyatt Regency Pier Sixty-Six
- 9. Renaissance Hotel Ft. Lauderdale

HOLLYWOOD HOTELS

- 36. Greenbriar Beach Club
- 41. Grenier's Inn on the Beach
- 18. Holiday Inn Hollywood Beach
- 19. Howard Johnson Plaza Resort
- 37. Manta Ray Inn
- 39. Ocean Inn Motel
- 20. Ramada Inn Hollywood Beach Resort
- 21. Ramada Plaza Downtown
- 38. Riptide Patio Motel
- 22. Westin Diplomat Resort & Spa

Discovering Greater Fort Lauderdale

Leisure Time Activities

There are many exciting leisure-time activities in the Greater Fort Lauderdale area. For example, barely 5 minutes away from the Convention Center is Fort Lauderdale's South Beach with its pedestrian promenade, restaurants, and shopping areas. Look for the **Fort Lauderdale Information Desk and the FLT Tours Office on the first floor of the Convention Center** to find out what to do and where to go during your stay. Further information can be found on the Fort Lauderdale Web site at www.sunny.org or by calling 800-22SUNNY.

Arts Explosion Hotline—Broward Cultural Affairs has expanded its Arts and Entertainment Hotline by adding a toll free number for callers outside Broward. From classical and popular concerts to art exhibits and dance performances, children's activities and festival information, the new 24-hour hotline, 800-249-ARTS, is now accessible to all callers within the continental US. Visit the Sun Sentinel Web site www.sunsentinel.com.

Museum—The Museum of Art's permanent collections include "The Art of William Glackens"; "The CoBrA Collection"; European and American Modern & Contemporary Art from 1990 to the Present"; "The Contemporary Cuban Collection". Beginning May 8-July 13, "The Tumultuous Fifties: Photography from the New York Times" will be shown. Visit the website at www.museumofart.org for additional information, or contact them at (954) 525-5500.

New to Greater Fort Lauderdale is the African American Research Library & Cultural Center, which provides a full range of general library services. In addition, it serves as a cultural center for scholars, students, and the general public. Housing more than 75,000 books, documents, artifacts and related materials that focus on the experience of people of African descent. To learn more, visit the website www.broward.org/aarlcc.htm.

Parks and Recreation—Rest and relaxation can certainly be found at a number of Broward County's local parks such as the Anne Kolb Nature Center at West Lake Park, North Beach Park in Hollywood, John U. Lloyd Beach State Park in Dania, S. Beach Park in Ft. Lauderdale, and Deerfield Island Park. Call Broward County Parks and Recreation Division for further information at 954-357-8100.

Shopping—Visit **The Shops of Las Olas** for a late night outdoor dinner and stroll in the historic section of town. **The Galleria** on Sunrise offers 150 stores including Neiman Marcus, and Saks Fifth Avenue. **Sawgrass Mills**, the world's largest outlet mall, has over 240 brand name outlets and recently added **The Oasis**, a 300,000 sq. ft. outdoor area featuring restaurants such as Wolfgang Puck's and The Cheesecake Factory, as well as Game Works and movie theaters for family entertainment. Over 100 **antique shops** are waiting for browsers in nearby Dania. The **Swap Shop** entertainment and bargain-shopping complex has some 2,000 vendors. Be sure to visit Ft. Lauderdale's **Beach Place** with shopping off the beach located north of A1A, as well as the new Las Olas Riverfront in the Downtown Arts and Science District.

Sightseeing—Kids and adults will enjoy the many sightseeing opportunities, including the Buehler Planetarium, the Museum of Discovery and Science, the Everglades, the International Swimming Hall of Fame, the 200 ft. Skycoaster at Boomers at Dania Beach, Young At Art Museum, Flamingo Gardens, Butterfly World, and Bonnet House. Nearby Dania has the Graves Museum of Archaeology, complete with dinosaur bones. Take a nighttime water-taxi tour of the beautiful homes along the New River on your way to dinner or the theater.

New this year... Purchase the Riverwalk A & E Sunsational Passport with entitles bearer to 7 days of unlimited use of the Water Bus plus admission to Museum of Art, Museum of Discovery and Science, Old Fort Lauderdale Village & Museum, Bonnet House, Stranahan House, Fort Lauderdale International Film Festival, and Two for One Discount on Select Performances at the Broward Center for the Performing Arts. For more information call (954) 467-6093 or www.riverwalkpassport.com.

Sports Activities—Choose from swimming, fishing, sailing, waterskiing, and windsurfing. There are over 500 tennis courts, more than 50 golf courses, 23 miles of Atlantic Coast, and 300 miles of inland waterways in the area. Snorkel and dive at the underwater reef at Lauderdale-by-the-Sea. Fort Lauderdale also offers world class thorough-bred horse racing, harness racing, greyhound dog tracks, and action-packed jai-alai.

Theater—The Broward Center for the Performing Arts in Fort Lauderdale will host theatre and musical productions during ARVO. For tickets contact The Broward Center for the Performing Arts Box Office, PO Box 1630, Fort Lauderdale, FL 33302; Phone: 954-462-0222; or visit their Web Site at www.curtainup.org

Day Excursions

Operated by FLT Tours, Inc.

FLT Tours will be offering the following tours during the convention:

- **Everglades and Flamingo Gardens Tour or Everglades and Seminole Museum Tour:** 5 hours: \$45.00
- **Miami City Tour** with Intercostal Cruise: 6 hours: \$45.00
- **Key West Day Trip:** 15 hours: \$110.00
- **Disney Day Trip:** 15 hours: \$125.00
- **Shopping Shuttle:** continuous: \$15.00
- **Day of Fun Picnic and Nature Tour:** \$25.00
- **Post Conference Carnival Cruise Lines**—4 day cruise starting at \$270.00 per person
- **Post Conference Key West and Disney Tours,** including car rental and hotel—starting at \$200.00 per person

For additional information, or to pre-register for any of the tours, please visit our website at www.flttours.com (click on the ARVO 2003 icon), or contact FLT Tours, P.O. Box 290093 Davie, FL 33329-0093. (954) 370-8260, FAX: (954) 424-0240, e-mail:

kkossak@flttours.com, or visit the representative in the lobby of the Convention Center.



2003 ARVO Annual Meeting Registration Form

The Association for Research in Vision and Ophthalmology
May 4-9, 2003 • Fort Lauderdale, Florida

- Registration Fees are not included in your membership dues.
- All Meeting participants are required to register. Having an abstract accepted for presentation does not mean you are registered to attend.
- Namebadges will be mailed March 1 through April 1.

**Advance
Registration Deadline:
April 11, 2003
Register online:
www.arvo.org**

Suite 250, 12300 Twinbrook Parkway • Rockville, MD 20852-1606 • Telephone (240) 221-2900 • Fax (240) 221-0370 • www.arvo.org

Please Print

A Participant Information

First Name	Middle Initial	Last Name	Degree(s)
Department			
Organization/Institution			
Street Address			
City	State	Zip + 4	
Country	Province/Prefecture	International Postal Code	

Communication Numbers (Required)

Phone	Fax
E-mail address	

- Paid 2003 ARVO Member

--	--	--	--

 Membership Number
- Renewing (attach Dues Invoice or Membership Form)
- Applying for Membership (attach Membership Form)
- Nonmember

Note on Faxing:
ARVO is not responsible for faxes or emails not received due to mechanical failure or circumstances beyond its control.

B Registration

Registrations received after the deadline will not be processed. After the deadline, you must register at the Meeting and pay the higher fee. Deadline is 5:00 pm, April 11, 2003.

	By April 11	After April 11	
<input type="checkbox"/> Member	\$205	\$305	\$ _____
<input type="checkbox"/> Student Member (Fellow, Resident, Other Postdoctoral [F] or Predoctoral Student [P])	\$115	\$165	\$ _____
<input type="checkbox"/> Nonmember	\$305	\$405	\$ _____
<input type="checkbox"/> Student Nonmember (Complete Status Certification below)	\$165	\$215	\$ _____

I certify that during 2003 the above individual will have full-time student status.

Supervisor's Signature/Printed Name/Title Institution

C ARVO Course Registration

Deadline is April 11. Separate registration fee required. No onsite registration.

	Member	Nonmember	
<input type="checkbox"/> Conditional Gene Targeting , Saturday, May 3	\$150	\$200	\$ _____

D Payment Options

- Check enclosed (Payable to ARVO in US Dollars drawn on a US bank).
- Visa MasterCard Good through/Exp. Date _____

Account Number

--	--	--	--

Signature _____

I hereby authorize ARVO to charge my credit card the Total Amount Due indicated above.

**If paying by VISA or MasterCard, fax to (240) 221-0370
or Register online: www.arvo.org**

Total Amount Due \$ _____

Payment Information

- Payment must accompany this form. A purchase order will not be accepted.
- Allow 10 days for processing. Check your status online at www.arvo.org.
- **Registration Refund Policy:** A written request, accompanied by the namebadge, must be received by 5:00 pm, April 29, 2003, in order to receive a 75% refund of the Registration Fee. **No refunds will be given after April 29, 2003 for any reason.**
- ARVO's Federal I.D. Number is 34-0812556.
- To avoid duplicate registrations, do not mail the original Registration Form if you fax the Form or register online.

Scientific Section Descriptions

ARVO is organized into 13 Scientific Sections which are described below. Each member must select one Section with which their research interests most closely identify. Each Section is represented on the Board of Trustees and the Annual Meeting Program Committee.

Anatomy & Pathology (AP)

ANATOMY Sub-Section includes descriptive or experimental studies about the structure, organization, and development of the tissues of the eye and central visual pathways, surgical anatomy, and the ocular vasculature. Anatomical research that deals exclusively with the cornea or lens is generally identified with those Sections.

PATHOLOGY Sub-Section relates to tissue response to ocular diseases, including response to treatment. Experimental studies related to tissue reactions that utilize microscopy, biochemistry, physiology, and other basic science methodologies are also appropriate, as well as are studies of human, animal, and experimental tumors.

Biochemistry & Molecular Biology (BI) Section deals with biochemical, biophysical, molecular-biological, and molecular genetics studies on any ocular tissue, anterior or posterior. Inherited and acquired diseases of the eye with related biochemical or molecular mechanisms are appropriate.

Clinical & Epidemiologic Research (CL) Section covers research using epidemiologic and biostatistical methodology on ophthalmologic disorders and vision. Emphasis is on studies providing a better understanding of the etiology, diagnosis, prevention or treatment of diseases affecting vision, and their prevalence, incidence and impact on patients and society.

Cornea (CO) Section covers both clinical and basic research concerned with the cornea, conjunctiva and the tear system.

Eye Movements/Strabismus/Amblyopia & Neuro-ophthalmology (EY) Section covers three areas: (i) The nature, control and development of eye movements, ocular alignment, and alignment-related stereopsis; (ii) The nature, etiology, diagnosis and treatment of strabismus, amblyopia and other disorders of eye movements, fusion and stereopsis; (iii) The neuro-ophthalmology of the visual sensory and oculomotor systems, including the orbit and adnexa.

Glaucoma (GL) Section encompasses basic and clinical research related to glaucoma in normal or glaucomatous eyes.

Immunology & Microbiology (IM) Section focuses upon basic and clinical research about ocular infections; inflammation and other immunologic

reactions induced by infectious agents; and non-infectious immunological disorders that involve ocular or adnexal tissue.

Lens (LE) Section encompasses basic and clinical studies that include varied aspects of the anatomy, pathology, physiology, biochemistry, cell, molecular and developmental biology, epidemiology and genetics of the ocular lens in normal or pathological states.

Physiology & Pharmacology (PH) Section involves basic research on cell physiology/biology, biophysics, pharmacologic mechanisms, and drug delivery and disposition. Emphasis is on: (i) transport properties of ocular epithelia; (ii) the regulation of aqueous humor formation and its composition; (iii) ocular inflammation and its mediators; (iv) receptors, neurotransmitters, neuropeptides, growth factors and second messengers; (v) the regulation of ocular blood flow; (vi) experimental drug delivery systems and (vii) neuroprotection.

Retina (RE) Section is concerned with basic and clinical studies, using a variety of techniques that augment our understanding or improve the treatment of retinal diseases. Any topic pertaining to the vitreous, retina, or choroid is applicable, if it has a clinical emphasis.

Retinal Cell Biology (RC) Section deals with basic and preclinical studies of the structure, composition and function of the retina, retinal pigment epithelium and their associated extracellular matrices from the molecular through the tissue level of organization. Studies include a variety of topics such as membrane composition, photoreceptor outer segment renewal, neurotransmitter systems, retinal blood vessels, glia, transport, neuronal circuitry, development, growth factors, and models of retinal degeneration.

Visual Neurophysiology (VN) Section deals with basic research directed at understanding the neural mechanisms, organization and function of the visual system, including the retina and all central pathways of vertebrate and invertebrate species. Topics include synaptic processes, neurotransmitter systems, phototransduction, developmental processes, membrane biophysics, light-evoked responses and coding, and cellular and systems organization of the neural tissues of the retinal and central pathways.

Visual Psychophysics & Physiological Optics (VI) Section deals with basic research in visual function and optics. Topics include spatial and temporal processing; sensitivity, adaptation, learning and attentional processing of basic and higher perceptual processes; low vision; and visual development throughout the life span. The emphasis is on the analysis of visual processing by psychophysical, computational, physiological and neural imaging techniques.

Membership Category Descriptions

Regular (R) \$185. Individual demonstrating a serious interest in or making significant contributions to visual science.

Family (R-FAM) \$215. Two individuals of the same immediate family who qualify for any class of membership and require only one print subscription to *Investigative Ophthalmology & Visual Science*.

Fellow, Resident or other Postdoctoral Student (F) \$80. Individual enrolled at an institution of higher learning in a scientific field related to vision or ophthalmology [Note: Limited to a total of 5 years in either or both student categories (F or P)].

Predoctoral Student (P) \$80. Individual enrolled at an institution of higher learning in a scientific field related to vision or ophthalmology [Note: Limited to a total of 5 years in either or both student categories (F or P)].

Sustaining (R-SUS) \$240. Individual in any category who chooses to support ARVO financially through a contribution of a designated amount.

Contributing (R-CON) \$240. Individual who supports the objectives of ARVO within a corporation or non-profit, but does not satisfy the requirements of other membership categories. (non-voting)

Life (LIFE) \$3,750. A member in any category who contributes a one-time designated amount to ARVO.

Life Family (LIFEFAM) \$4,750. Two individuals of the same family who qualify for any class of membership, contribute a one-time designated amount, and require only one print subscription to *Investigative Ophthalmology & Visual Science*.

Benefits Of Membership

Publications

- Subscription to *Investigative Ophthalmology & Visual Science (IOVS)* print included for all members except categories F, P and Emeritus who may subscribe at a discounted rate
- Online access to *IOVS* and *Journal of Vision (JOV)*
- ARVO Annual Meeting Program Summary Book and CD-ROM
- ARVO Membership Directory online
- ARVO Newsletter and online newsletter, *The ARVO Blink*
- Email Alerts to funding opportunities
- Discounted subscriptions to related eye and vision journals

Annual Meeting

- Submission of an abstract as First (Presenting) Author
- Reduced Registration Fees
- Placement Services at reduced rates for candidates
- Networking opportunities with the leaders in your field

Representation

- At the national level through the National Alliance for Eye and Vision Research (NAEVR) and other coalitions
- On the ARVO Board of Trustees and committees reviewing needs of students, minorities and international members; planning scientific programs and assessing the future directions of ARVO
- With other organizations such as the Association of University Professors of Ophthalmology (AUPO), the Association for Assessment and Accreditation of Animal Laboratory Care International (AAALAC)

Other

- Website (www.arvo.org) with quick access to current information, links to funding sources, policies and more!



2003 Membership Form

JOIN/RENEW ONLINE AT www.arvo.org

A Member Information (Please write legibly)

Form fields for Member Information: First Name, Middle, Last (Surname/Family) Name, Degree(s), Department, Organization/Institution, Street Address, City, State/Province, Zip + 4/Postal Code, Country, Phone, Fax, E-mail

B Member Categories and Dues

Check the appropriate Membership Category and enter corresponding amount (on the Total line). Dues for all membership categories, except Life and Life Family, are for the calendar year 2003.

- List of membership categories and dues: Regular (R) \$185, Family (R-FAMJ) \$215, Sustaining (R-SUS) \$240, Contributing (R-CON) \$240, Life (LIFE) \$3,750, Life Family (LIFEFAM) \$4,750, Fellow, Resident, or Other Postdoctoral Student (F)* \$80 w/IOVS \$175, Predoctoral Student (P)* \$80 w/IOVS \$175

* Student Status Certification (Required) I certify that during 2003 the above individual will have full-time status.

Signature fields: Supervisor's Signature, Printed Name/Title, Institution /Department

Total Due: \$ _____

- Notes: Dues for Regular, Family, Sustaining, Contributing, and Life and Family Life Members include an \$95 subscription to Investigative Ophthalmology and Visual Science. Meeting REGISTRATION FEES ARE NOT INCLUDED in your dues payment. Membership dues are non-refundable. ARVO's Federal I.D Number is 34-0812556.

C Journal Subscription

(Does not apply to Members-in-Training, categories F and P)

Note: All memberships include free access to IOVS and JOV full-text online, regardless of selections indicated below.

Do you want to receive the print format of IOVS? [] Yes [] No

If "No", please indicate to which journal you would like the subscription portion of your Dues allocated:

- [] IOVS [] Journal of Vision (JOV)

D Endorsement of Candidate for Membership

(Required of All New Member Candidates)

Endorser's Signature (Contributing, Fellows and Predoctoral Members may not endorse) and Endorser's Name (Please print) Member Number

E Scientific Section Affiliation

Check the two-letter code for the Scientific Section that best fits your research.

- Grid of scientific section codes: AP, BI, CL, CO, EY, GL, IM, LE, PH, RE, RC, VI, VN

F Member Demographic

(Optional—confidential for ARVO programmatic purposes only)

- Demographic questions: US Citizen, Gender, Year of Birth, Ethnicity (Native American/Alaskan Native, Asian, Black, Native Hawaiian/Pacific Islander, Hispanic, White, African American)

G Payment Options

Payment must accompany form. Purchase orders will not be accepted.

- Payment options: Check enclosed (Payable to ARVO in US Dollars drawn on a US bank), Visa, MasterCard Good through/Exp. Date, Account Number

Signature _____

I hereby authorize ARVO to charge my credit card the Total Due.

Do Your Colleagues Know How to Contact You?

3 Easy Ways to Update Your Information

- **Online**—Check your listing in the Members Directory Search at www.arvo.org and click the link to submit changes/corrections
- **E-mail** changes to mailchange@arvo.org
- **Fax** changes to 240-221-0370

Contacting ARVO

Mail: The Association for Research in Vision and Ophthalmology
Suite 250, 12300 Twinbrook Parkway
Rockville, MD 20852-1606

Phone: 240-221-2900

Fax: 240-221-0370

Membership Directory: www.arvo.org/membership.htm

Membership E-mail: mem@arvo.org

Home Page: www.arvo.org

Journal of Vision (JOV): <http://journalofvision.org>

Phone: 240-221-2930

Fax: 240-221-0370

Investigative Ophthalmology & Visual Science (IOVS):

<http://www.iovs.org>

Phone: 240-221-2920

Fax: 240-221-0355

Urgently Needed!

Old Photos & Memories to commemorate ARVO's 75th. Please send photos (we will return) and remembrances (under 200 words) to the ARVO office or bhollis@arvo.org. Please identify those in the photographs.

Discover the ARVO website, primed and ready to fulfill your professional needs...

Member Services

- Member Directory—updated daily!
- Members in the News—have you received an honor?
- ARVO Awards recipients—nominate your colleagues!
- Funding Source Guide & grant announcements



www.arvo.org

Everything for and about the ARVO Annual Meeting

- Program schedule, exhibitors and events
- Advance Registration
- Hotel Reservations
- Meeting Planner
- Registrant Search

Everything Abstracts!

- Prior years searches
- Presentation Guidelines
- Citation Guidelines

Career Center

- Find a great job or the perfect employee!
- Register for the Placement Service
- Reserve a table for the Job Fair

Calendar of Meetings and Conferences—list yours!

Reports on advocacy and recent testimonies before Congress

Links to IOVS and the Journal of Vision

just a *click* away...
www.arvo.org



The Association for Research in Vision and Ophthalmology

12300 Twinbrook Parkway, Suite 250
Rockville, MD 20852-1606

Non-Profit Org.
U.S. Postage
PAID
Permit No. 356
York, PA