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EyeNet Academy News

SUBSPECIALTY DAY EDITION
CHICAGO 2016

An Insider's Guide
to the Subspecialty Day Meetings

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From the Editor

Welcome to Subspecialty Day 2016!

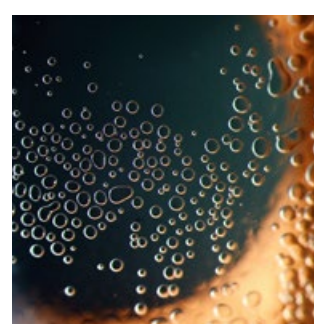
This year's presentations will cover the latest developments in disciplines ranging from cornea to uveitis. On Saturday, there will be Subspecialty Day meetings in cornea, glaucoma, ocular oncology and pathology, oculofacial plastic surgery, pediatric ophthalmology and strabismus, and uveitis. Refractive surgery is covered Friday, and retina is both Friday and Saturday.



I urge you to take time to explore disciplines other than your own. Often, pearls from one subspecialty can be applied to a completely different arena in surprising and useful ways. Please see the program directors' recommendations (page 4) to find topics that might be of interest to you.

Look for the second edition of *Academy News* on Sunday, and check your email each evening for Academy Live, a daily roundup of news from Subspecialty Day and AAO 2016. The content can also be found at aao.org/eyenet/academy-live.

Ruth D. Williams, MD
Chief Medical Editor, *EyeNet Magazine*



On the Cover

Air Bubbles in the Tear Film Under Contact Lens

Photo by Kasi Sandhanam
Singapore National Eye Center

Program Directors Share Insights on Subspecialty Day From Cornea to Uveitis

To give you an inside look at Subspecialty Day, *Academy News* contacted the program directors from each meeting and asked the following questions: 1) Which presentations will have broad appeal across subspecialties? 2) Which presentations might cause subspecialists to reconsider an area of their clinical practice? 3) Which presentations address particularly novel or exciting developments within the field? Here are those answers, with descriptions provided by the program directors.

Most Subspecialty Day meetings take place on Saturday. However, Refractive Surgery Subspecialty Day takes place on Friday only, allowing refractive surgeons the opportunity to register for the Saturday Cornea Subspecialty Day—or any other Saturday program. As always, Retina Subspecialty Day takes place over Friday and Saturday.

NOTE: All summaries were written in advance of Subspecialty Day. Be sure to check the Subspecialty Day schedule at aao.org/2016 (click “Education,” and “Subspecialty Day”) for updates.

Of Interest Across Subspecialties

CORNEA

Room E354

Tools for Diagnosis and Treatment of Ocular Surface Tumors, moderated by Carol L. Karp, MD (Saturday, 10:44-11:55 a.m.)

The Cornea Subspecialty Day will have an exciting discussion on tumors, which will be of interest to ophthalmologists across many subspecialties. We all will face issues of determining whether a lesion on the conjunctiva, iris, or lid is neoplastic, and then how to manage it. Neoplasia will be addressed from outside to inside—lids, conjunctiva, and iris lesions.

Dr. Bitá Esmali will give guidance on when to be concerned by lid lesions, and she will provide us with insights into the malignant and benign features of each.

Regarding the ocular surface, the majority of patients we see will have some conjunctival pigmentation. While most melanosis in dark-pigmented individuals is benign, we need to know when to worry and when to watch. Dr. Carol Shields will be presenting a discussion of what to do with pigmented lesions. Complexion-associated melanosis, primary acquired melanosis, melanoma, and masquerades will be discussed, with algorithms of how to approach these lesions.

Moving from the surface to the ante-



PAM. 64-year-old white man with unilateral conjunctival pigmentation. Pathology revealed primary acquired melanosis (PAM) with severe atypia, up to full thickness.

rior segment, iris lesions will be highlighted by Dr. Arun Singh, with clinical and imaging features outlined.

The Cornea Subspecialty Day will be of interest to all, complete with many of the lumps and bumps we see every day in our practices. —Carol L. Karp, MD, Cornea program director

GLAUCOMA

Grand Ballroom S100ab

The Intersection of Glaucoma and Retina, moderated by Gregg A. Heatley, MD, and Kelly Walton Muir, MD (Saturday, 3:45-4:45 p.m.)

Every ophthalmologist struggles with the management of patients with difficult glaucoma issues, and many of these patients have retinal comorbidities that affect the diagnosis or treatment of their glaucoma. This session will review the more common intersections of glaucoma and retinal disease. Using a case-based presentation, a panel of experts will discuss each scenario, followed by a presentation of pertinent published evidence and a follow-up of the case. Topics will include how anti-VEGF agents, now a mainstay of retinal therapy, can influence short- and long-term glaucoma care; diagnostic dilemmas and therapeutic challenges of high myopia; new approaches to managing neovascular glaucoma; and a systematic approach to high IOP after retinal surgery. In addition to reviewing the pertinent literature, this session will provide tangible steps that can be incorporated into everyday comprehensive and subspecialty practice.

—Jody R. Piltz-Seymour, MD, Glaucoma program director

OCULAR ONCOLOGY AND PATHOLOGY

Room E350

Sunrise Over Lake Michigan—Top 5 Advancements Over the Past Decade,

moderated by Carol L. Shields, MD, and Amy C. Scheffler, MD (Saturday, 8:05-9:08 a.m.)

The first segment of talks at the Ocular Oncology and Pathology Subspecialty Day will recap the top 5 advances in the field over the past 10 years. The speakers will focus their review on various segments that appeal to the general ophthalmologist, such as top advancements with retinoblastoma, choroidal melanoma, choroidal hemangioma, and other intraocular tumors. This provides the general ophthalmologist with a quick, concise, and solid update on the field. Another “top 5” talk will highlight the molecular, cytologic, and microbiologic tests that are now available for ophthalmologists in general, as well as for retina, uveitis, and cornea specialists and ocular oncologists, to help raise awareness and increase understanding of the clinical significance of these tests. Technological advances now allow ophthalmologists to reach a diagnosis using small tissue samples. The information in these “top 5” talks will help both general and subspecialty ophthalmologists to quickly gain a better understanding of current and future developments in ocular oncology and pathology. This could direct appropriate selection of diagnostic tests, targeted therapies, and indications for referrals of their patients.

—Patricia Chévez-Barrios, MD, and Carol Shields, MD, Ocular Oncology and Pathology program directors

OCULOFACIAL PLASTIC SURGERY

Room S406a

Nonsurgical Aesthetics—How to Achieve High Reward With Low Risk, moderated by Wendy W. Lee, MD (Saturday, 10:10-11:40 a.m.)



OCT IMAGING. The Ocular Oncology and Pathology Subspecialty Day 2016 will include a discussion on new OCT findings of retinal astrocytic hamartoma.

We will have an entire session dedicated to nonsurgical aesthetics, including facial shaping with neurotoxins and fillers. These presentations will be given by experts in the field of nonsurgical facial rejuvenation and will cover everything from the basics to advanced techniques. We will also discuss injection complications and their treatment. These techniques can be useful to all ophthalmologists who are looking to add aesthetics to their practices.

—Andrew Harrison, MD, Oculofacial Plastic Surgery program director

PEDIATRIC OPHTHALMOLOGY

Room E450

Genetics—Appealing to Your Base, moderated by Tammy L. Yanovitch, MD (Saturday, 2:10-2:42 p.m.)

Advances in medical genetics are occurring so rapidly that it seems almost impossible to know what tests to order and when to send a patient for possible treatment trials. Comprehensive ophthalmologists as well as pediatric, retinal, and anterior segment specialists will enjoy the star-studded panel led by Tammy L. Yanovitch, MD, on diagnostic and therapeutic advances in genetics.

Through a case-based approach, the panel will discuss patients with retinal dystrophies/degenerations, congenital cataracts, and systemic syndromic conditions for whom genetic testing could be the initial (and final) diagnostic test. Updates on gene therapy, as well as use of embryonic and adult stem cells for various ophthalmic conditions, will also be reviewed by expert clinician-scientists in the fields. —R. Michael Siatkowski, MD, Pediatric Ophthalmology program director

REFRACTIVE SURGERY

Room E354

Laser Vision Correction: How to Improve Patient Education, presented by Marianne O. Price, PhD (Friday, 9:04-9:11 a.m.)

Intraocular Refractive Surgery Topics, moderated by Bonnie A. Henderson, MD, and Richard Tipperman, MD (Friday, 9:50-10:39 a.m.)

Marianne Price, PhD, gives an important talk on ways to improve patient education in refractive surgery. She presents the data from a prospective multicenter study that used an Internet-based questionnaire and found higher patient satisfaction with LASIK than with contact lenses for vision correction. The

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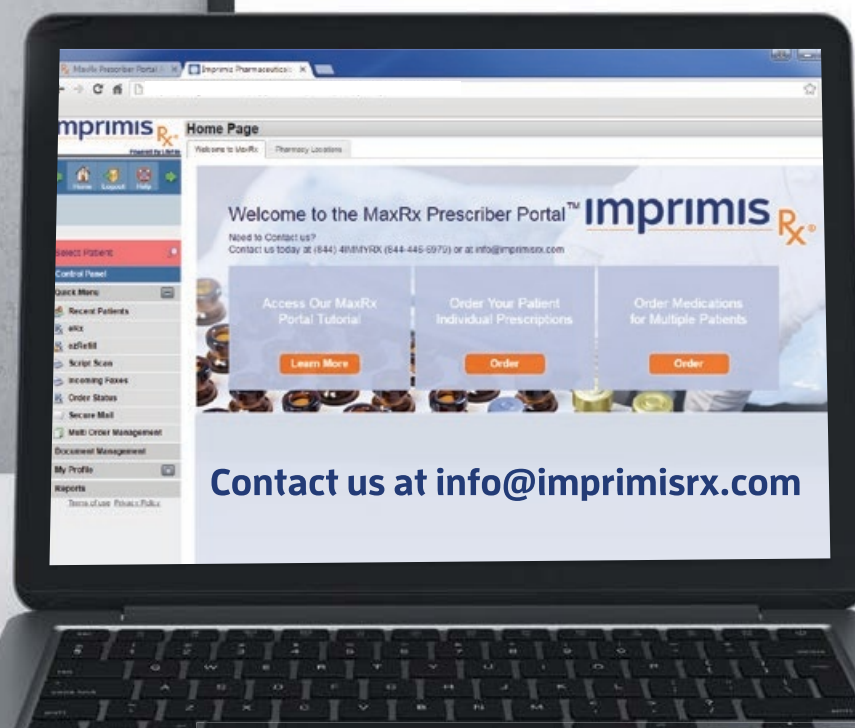
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study included topics related to quality of vision in low light conditions and also established a new benchmark by comparing LASIK patients with a control group that continued to use contact lenses—a popular refractive alternative—rather than with a hypothetical perfect eye.

The session titled Intraocular Refractive Surgery Topics covers much ground. It starts with an introduction to the concept of dysfunctional lens syndrome (DLS), which is discussed in detail by Dan Durrie, MD. Understanding DLS opens a new perspective for defining the ideal refractive procedure for presbyopic patients.

The session also focuses on patient selection for presbyopia-correcting IOLs; the use of supplementary sulcus-fixated IOLs, an interesting option for refractive treatment in pseudophakic eyes; the different formulas for planning toric IOL power and axis; and controversies in accommodative IOLs.

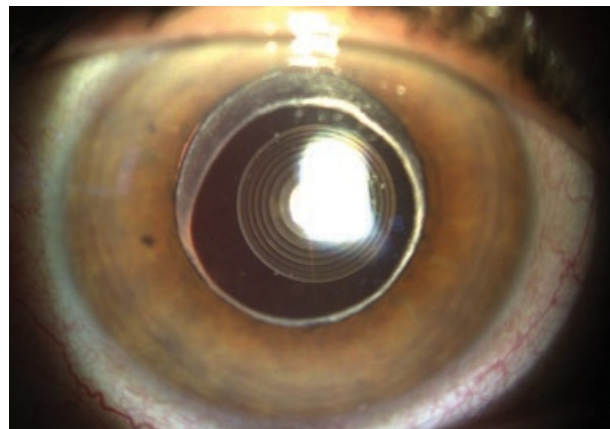
—Renato Ambrósio Jr., MD,
Refractive Surgery program director

RETINA

North, Hall B

Therapies for Macular and Retinal Vascular Diseases, moderated by Susanna S. Park, MD, PhD (Friday, 11:22-11:56 a.m.)

The Friday session titled Therapies for Macular and Retinal Vascular Diseases at



IOL. Perfectly centered diffractive multifocal IOL in an unhappy patient with macular disease.

Retina Subspecialty Day presents a good overview of newly recognized retinal entities important for the ophthalmologist to know. These include viral-related entities, such as Zika virus, as well as relatively newly recognized adverse drug reactions that can cause retinal damage and result in visual loss. For example, a newly FDA-approved class of drugs, known as MEK inhibitors, is used to treat skin melanomas. Recently, MEK inhibitors have been shown to cause retinal pigment epithelial detachments and visual loss. Perhaps of more immediate concern, visual loss due to hemorrhagic occlusive retinal vasculitis may result from use of vancomycin if it is added to the irrigating solutions used in cataract surgery. It is extremely important for the ophthalmologist to be aware of these conditions. These and other pertinent conditions, as well as their management, are presented at Retina Subspecialty Day.

—Jennifer I. Lim MD, FARVO,
Retina program director

UVEITIS

Grand Ballroom S100c

Boot Camp—Basics, moderated by Russell W. Read, MD, PhD (Saturday, 8:05-9:05 a.m.)

The 2016 Uveitis Subspecialty Day takes a different approach this year, beginning with a return to the basics in the approach to the uveitis patient, followed by case-based presentations highlighting both the fundamentals and nuances of diagnosis and treatment.

The initial section on fundamentals, or the “boot camp,” is intended to provide the non-uveitis specialist with a structured and logical approach to intraocular inflammatory disease, with particular emphasis on the generation of a differential diagnosis, appropriate testing and data analysis, and the formulation of a treatment plan that is congruent with the type, location, and severity of inflammation. Highlights of this section will include presentations on uveitic diagnoses not to miss, multimodal imaging in uveitis, and practical treatment paradigms for both local and systemic therapy.

—Albert T. Vitale, MD,
Uveitis program director,
Russell W. Read, MD, PhD,
Uveitis program chair

Clinical Practices to Reconsider

CORNEA

Room E354

Role of Descemet Membrane Endothelial Keratoplasty as Primary EK, presented by Mark A. Terry, MD (Saturday, 9:28-9:37 a.m.)

In the last few years, there has been great interest in the evolution of corneal transplantation. There are now multiple options for patients undergoing surgery. Dr. Mark Terry will present on the role of DMEK as the procedure of choice for endothelial keratoplasty (EK). He will outline the clinical indications for DMEK and his preferred surgical technique, and he will discuss the role DMEK will play in the future in treatment of endothelial disease. Optimizing patient outcomes with the ideal surgical technique for each patient will allow subspecialists to provide improved patient care.

—Shahzad I. Mian, MD,
Cornea program director

GLAUCOMA

Grand Ballroom S100ab

Glaucoma: It's Not Just About IOP, moderated by Arthur Sit, MD, and Kaweh Mansouri, MD (Saturday, 10:43-11:43 a.m.)

Arguably, one of the most frustrating parts of glaucoma care is when glaucomatous damage continues to progress despite excellent lowering of intraocular pressure (IOP). In this session, mod-

erated by Drs. Sit and Mansouri, this dilemma is first highlighted with a case presentation, followed by presentations discussing how factors other than IOP may be involved in the pathogenesis of glaucoma. Dr. Joseph Caprioli will discuss whether fluctuation of IOP is important, Dr. Claude Burgoyne will present how ocular biomechanics may help define tissue damage, Dr. Alon Harris will examine the role of ocular blood flow in the course of glaucoma, and Dr. Rand Allingham will discuss whether CSF pressure plays a role in glaucoma pathogenesis. Novel, non-IOP-lowering approaches to therapy will be discussed by Dr. Cindy Mattox, followed by a review of our current understanding of neuroprotection in glaucoma by Dr. Jeffrey L. Goldberg.

—Jody R. Piltz-Seymour, MD,
Glaucoma program director

OCULAR ONCOLOGY AND PATHOLOGY

Room E350

Blustery Debates in the Management of Intraocular Tumors, moderated by Tara A. McCannel, MD, and Jose S. Pulido, MD, MS (Saturday, 9:50-11:14 a.m.)

From 10:37 to 11:02 a.m., during the Blustery Debates session, there will be a segment on intra-arterial chemotherapy for retinoblastoma (IAC). It will scientifically evaluate and review the pros and cons of using this cutting-edge approach in different groups of children with retinoblastoma. Along with the indications and outcomes, the speakers will present the now-appreciated risks, toxicities, and complications of this treatment.

In 5 consecutive short talks from several major centers around the world, speakers will address their indications for IAC and will discuss why they use it in a majority or minority of cases. There will be a specific focus on toxicity of IAC and the ongoing results for the Children's Oncology Group.

For practicing ocular oncologists, this set of talks is essential for a complete picture of the successes and failures of this controversial therapy. The wide relevance of this topic, especially in light of the increasing frequency of IAC for children with retinoblastoma, is critical to the understanding of its application.

—Patricia Chévez-Barrios, MD, and
Carol Shields, MD, Ocular Oncology and
Pathology program directors

OCULOFACIAL PLASTIC SURGERY

Room S406a

Management of Orbital Lymphangiomas, presented by Kenneth V. Cahill, MD, FACS (Saturday, 2:10-2:20 p.m.)

Ken Cahill will be discussing management of orbital lymphangioma, a difficult clinical problem to deal with. Many

FOR THE RECORD

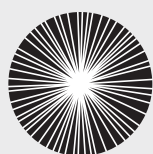
ANNUAL BUSINESS MEETING.

Notice is hereby given that the Annual Business Meeting of the American Academy of Ophthalmology will be held on Sunday, Oct. 16, in North, Hall B of the McCormick Place Convention Center in Chicago, 10:15-10:45 a.m.

The order of business shall be:

- Call to order
- Report of the president
- Report of the executive vice president/CEO
- Election of fellows and members
- New business
- Announcements and notices
- Adjournment

As stated in the bylaws of the Academy, the order of business of each Annual Business Meeting may be amended by an affirmative vote of a majority of the voting fellows and members present and voting at the meeting.



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Candidate information is posted in the McCormick Place Grand Course. After Nov. 17, you also can visit aao.org/about/governance/elections to read candidate biographies and election results.

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of these patients do poorly with observation or surgical treatment. Dr. Cahill is part of a multidisciplinary team in Columbus, Ohio, that treats these patients with interventional radiology techniques. The results are excellent, with minimal risk to the patients. This treatment has revolutionized the treatment of this difficult pediatric orbital tumor.

—Andrew Harrison, MD, Oculofacial Plastic Surgery program director

PEDIATRIC OPHTHALMOLOGY

Room E450

Binocular Amblyopia Treatment, presented by Eileen E. Birch, PhD (Saturday, 1:11-1:21 p.m.)

For more than a century, optical correction and monocular occlusion have been the mainstays of amblyopia treatment, joined by pharmacologic occlusion a few decades ago. Although these treatment modalities have demonstrated effectiveness in well-controlled clinical trials, only a minority of patients achieve 20/20 vision, and compliance is always a problem for busy families with children developing their independence. Recent advances in both technology and neurobiology have opened the way to use of various binocular devices, often employing gaming theory, to yield faster, better outcomes in amblyopia treatment. Eileen Birch, PhD, will discuss the current and potential future roles of binocular therapy for treatment of amblyopia during the “Emerging Technology” session (Saturday, 1:10-2:10 p.m.) of this year’s Pediatric Ophthalmology Subspecialty Day.

—R. Michael Siatkowski, MD, Pediatric Ophthalmology program director



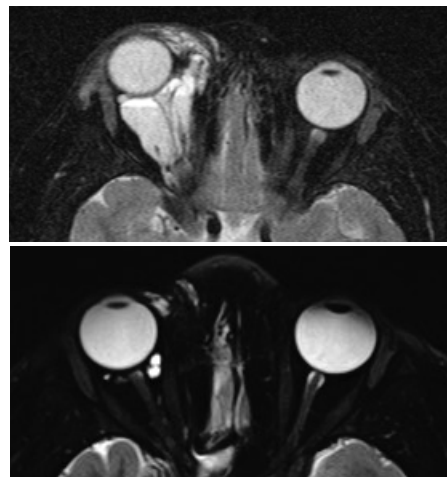
NEW TX. Pediatric patient participating in binocular amblyopia treatment on an iPad.

REFRACTIVE SURGERY

Room E354

Keynote Lecture—Corneal Wound Healing: What Every Refractive Surgeon Needs to Know, presented by Steven E. Wilson, MD (Friday, 8:05-8:15 a.m.)

The ISRS Refractive Surgery Subspecialty Day meeting is consolidated into 1 day to provide an in-depth comprehensive update on refractive surgery. Topics range



BEFORE AND AFTER. Lymphangioma treated with interventional radiology.

from corneal procedures to intraocular surgery, including phakic IOL surgery and refractive lens/cataract surgery. Therapeutic procedures such as cross-linking are also covered. The program finds the balance between basic concepts for optimizing outcomes, as well as for preventing and treating complications, along with some of the most current and innovative research in the field of refractive surgery. Among these topics, subspecialists and comprehensive ophthalmologists alike will find new ideas to bring back to their practice.

The program starts with Steve Wilson, MD, giving the keynote lecture on what every refractive surgeon needs to know about corneal wound healing. Because we recognize that translational research or science is fundamental for the progress of refractive surgery, it is important that we try to understand such procedures at a cellular and even molecular level.

—Renato Ambrósio Jr., MD, Refractive Surgery program director

RETINA

North, Hall B

Imaging, moderated by Carmen A. Puliafito, MD, MBA (Saturday, 8:05-8:39 a.m.)

The year 2016 witnessed the commercial availability of optical coherence tomography angiography (OCT-A), other advances in OCT imaging, and progress in widefield imaging. These advances, especially OCT-A, will have a profound impact upon clinical practice. It is truly amazing that OCT-A yields retinal angiographic information without the use of fluorescein or indocyanine green (ICG) dye injections. Although OCT-A is not exactly comparable to fluorescein angiography and ICG angiography, the retinal and choroidal vascular details are obtained with a noninvasive, fast, and painless imaging session. The clinical utility of OCT-A and prognostic implications of OCT-A are still being discovered. The diagnostic utility and prognostic information arising from OCT-A and other new technologies will be highlighted during the course of the Retina Subspecialty

Day meeting by experts in the field. For example, the ability to predict geographic atrophy growth and to predict treatment response in eyes with age-related macular degeneration and diabetic macular edema based upon OCT yields valuable information for both physicians and patients.

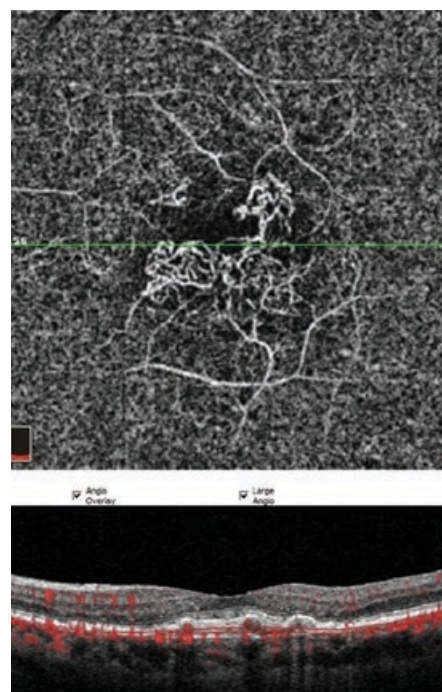
—Jennifer I. Lim MD, FARVO Retina program director

UVEITIS

Grand Ballroom S100c

Case-Based Presentations, Saturday, 9:05 a.m.-4:30 p.m.: **Anterior Uveitis**, moderated by Nisha Acharya, MD; **Intermediate Uveitis**, moderated by Eric Suhler, MD; **Posterior Uveitis**, moderated by Sunil K. Srivastava, MD; **Panuveitis**, moderated by Phoebe Lin, MD, PhD; **Potpourri**, moderated by Hatice N. Sen, MD.

Building on Uveitis Subspecialty Day’s boot-camp foundation, the majority of the program will center on case-based presentations that will illustrate and amplify the principles established in the boot camp and hopefully raise more than a few diagnostic and therapeutic dilemmas. The cases will be organized according to the anatomic location of inflammation (anterior, intermediate, posterior, and panuveitis), and consist of 5 separate presentations to a panel of 4 experts for each anatomic location; there will also be an additional Potpourri section. In each category, a progression from basic to more complex cases will be presented in an effort to provide educational value for both the generalist and the uveitis specialist. This case-based learning system is intended to be engaging and interactive,



OCT-A. A patient with wet AMD. Top, OCT-A image; bottom, SD-OCT image through the macular area shown on the OCT-A image as a green line. The top image shows the neovascular membrane beautifully—all with OCT—without fluorescein dye injection.

simulate real-life clinical decision making, and underscore the nuances involved in uveitic patient care. Cases will run the gamut of the major infectious and noninfectious uveitic entities, both sight threatening and benign, from the common and obvious to the rare masquerader. The surgical management of the complications of uveitis requires special attention and will be addressed separately. A presentation on the fundamentals in the surgical management of patients with uveitic cataract and glaucoma will be followed by the application of vitreoretinal surgical techniques for both diagnostic and therapeutic purposes.

—Albert T. Vitale, MD, and Russell W. Read, MD, PhD, Uveitis program directors

Exciting Developments

CORNEA

Room E354

New Developments in Dry Eye Diagnosis and Treatment, presented by Anat Galor, MD (Saturday, 2:13-2:22 p.m.)

New developments in dry eye diagnostics and treatments: Although dry eye is a very common and seemingly easy-to-treat condition, the number of unsatisfied patients with dry eye continues to increase. This patient dissatisfaction stems from both problems with diagnosis of the condition and inadequate treatment of symptoms. As we have continued to learn more and more about the pathophysiology of dry eyes, as well as underlying causes of the condition, newer diagnostic and treatment modalities continue to evolve, especially with the help of technology. No longer is the disease simply diagnosed by Schirmer testing and treated with artificial tears; now it is treated in a stepwise fashion with numerous options available. In her presentation, Anat Galor, MD, will review the newest diagnostic techniques and technology for dry eyes, and she will describe the latest in treatment modalities for this complex condition.

—Bennie Jeng, MD, Cornea program director

GLAUCOMA

Grand Ballroom S100ab

Controversies, moderated by Nils A. Loewen, MD, and Meenakshi Chaku, MD (Saturday, 9:05-10:18 a.m.)

Often, clinicians strongly disagree on the optimal approach to specific clinical situations. This lively session will spark debate about pertinent controversies on the forefront of caring for glaucoma patients. It will tackle issues such as same-day bilateral surgery and combining glaucoma surgeries in 1 surgical session, and it will cover whether surgery in the elderly preserves quality of life. In addition, discussants will debate the pros

INSIGHTS COME TO LIGHT

AT BOOTH 1408

Saturday, October 15, 2016

9:30 AM
**Complex Cases in
Cataract Surgery**
Eric Donnenfeld, MD

10:00 AM
**Expanding Options in
Ab-Interno Glaucoma Surgery**
Nathan M. Radcliffe, MD

10:30 AM
**New Insights in Diabetic
Macular Edema**
David Eichenbaum, MD

11:00 AM
**The Science Behind Neurostim
and Ophthalmology**
John Sheppard, MD

11:30 AM
**From Studies to Clinical Use:
Diabetic Macular Edema Data
and Case Review**
Brian Chan-Kai, MD

12:00 PM
**Episcleral Venous Fluid Wave:
Intraoperative Evaluation of the
Trabecular Outflow Pathway**
Davinder Grover, MD

12:30 PM
**Nasty Cataracts: Prevention
and Management
of Complications**
Robert Osher, MD

1:00 PM
**Strategies for the
Rock-Hard Nucleus**
David Chang, MD

1:30 PM
**Glaucoma: Which Surgery for
Which Patient?**
Jonathan S. Myers, MD

2:00 PM
**The Key Elements of
Effective Intravitreal
Injection Reimbursement**
Angela Chambers

2:30 PM
**Understanding the Signs &
Symptoms Disconnect**
Richard Adler, MD



3:00 PM
**Retina FIRST
Writers' Award
Ceremony**

Sunday, October 16, 2016

9:30 AM
**Management of
Subluxated IOLs**
Bonnie Henderson, MD

10:00 AM
DMEK Pearls
Neda Shamie, MD

10:30 AM
**New Insights in Diabetic
Macular Edema**
Ashkan Abbey, MD

11:00 AM
**Managing Uveitis-Glaucoma-
Hyphema Syndrome With
Complex IOL and
Glaucoma Surgery**
Arsham Sheybani, MD

11:30 AM
**From Studies to Clinical Use:
Diabetic Macular Edema Data
and Case Review**
Michael Singer, MD

12:00 PM
**Surgical Techniques for the
Complex Cataract Patient**
Terry Kim, MD

12:30 PM
**Managing Glaucoma With
Surgical and Medical Options**
E. Randy Craven, MD

1:00 PM
**The Science Behind Neurostim
and Ophthalmology**
John Sheppard, MD

1:30 PM
**Ab-Interno Glaucoma Surgery:
Procedures for the 21st
Century Glaucoma Surgeon**
Oluwatosin U. Smith, MD

2:00 PM
**Iris Repair, Reconstruction,
and Replacement**
Brandon Ayres, MD

2:30 PM
**The Key Elements of
Effective Intravitreal
Injection Reimbursement**
David Baczewski

3:00 PM
Advances in Glaucoma Surgery
Robert J. Noecker, MD



4:00 PM
**Resident
Writer Award
Ceremony**

Monday, October 17, 2016

9:30 AM
Lowering IOP in the Real World
Ronald L. Gross, MD

10:00 AM
**New Insights in Diabetic
Macular Edema**
Jeremy Wolfe, MD

10:30 AM
**New Insights in Diabetic
Macular Edema**
Joseph Coney, MD

11:00 AM
**New Insights in Diabetic
Macular Edema**
María H. Berrocal, MD

11:30 AM
**New Insights in Diabetic
Macular Edema**
Charles Wykoff, MD, PhD

12:00 PM
**The Science Behind Neurostim
and Ophthalmology**
Preeya Gupta, MD

2:00 PM
**The Key Elements of
Effective Intravitreal
Injection Reimbursement**
Angela Chambers

Booth 1408

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and cons of early versus late adoption of new surgical techniques. The audience will participate by voting to weigh in on which side of the debate they support.

—*Jody R. Piltz-Seymour, MD,*
Glaucoma program director

OCULAR ONCOLOGY AND PATHOLOGY

Room E350

Weathering the Storm, moderated by

G. Baker Hubbard, MD, and Ivana K. Kim, MD (Saturday, 4:29-5:00 p.m.)

The highlight of the symposium will likely be three 7-minute personal perspectives delivered by senior leaders in the field on interesting topics, such as “Ocular Oncology: What I Like and Don’t Like,” or “Running an Ocular Oncology Practice: My Top 5 Lessons Learned.” However, the biggest treat will

be the presentation titled “Forty Years in Practice: I Will Tell You 5 Secrets.” This meeting promises to be filled with solid scientific evidence, lively discussion, and a wonderful, time-honored perspective.

—*Patricia Chévez-Barrios, MD, and*
Carol Shields, MD, Ocular Oncology and
Pathology program directors

OCULOFACIAL PLASTIC SURGERY

Room S406a

Orbital Imaging 2016, presented by Jurij R. Bilyk, MD (Saturday, 3:30-3:40 p.m.)

Jurij Bilyk, from the Wills Eye Institute, will be covering advances in orbital imaging over the last several years. He will specifically discuss its use in trauma and nontrauma situations. This will help keep attendees current with the latest in imaging technology.

—*Andrew Harrison, MD, Oculofacial*
Plastic Surgery program director

PEDIATRIC OPHTHALMOLOGY

Room E450

Making an EHR Work for You, Not Against You, presented by David K. Coats, MD (Saturday, 4:13-4:22 p.m.)

Maximizing Office Workflow Efficiency, presented by Eric A. Packwood, MD (Saturday, 4:31-4:40 p.m.)

Research demonstrates that use of an electronic health record (EHR) can add up to 7 minutes per patient encounter. And increasing regulatory demands place more burdens on physicians and take time from patient care. Many MDs are skeptical that these changes improve either clinical outcomes or patient experiences. The session on increasing efficiency and patient safety will address both of these concerns. David K. Coats, MD, will discuss ways to use an EHR to drive better patient care and improve practice management. Eric A. Packwood, MD, will demonstrate techniques to streamline office workflow to improve the patient experience of care.

—*R. Michael Siatkowski, MD, Pediatric*
Ophthalmology program director

REFRACTIVE SURGERY

Room E354

A Quest for Excellence—Learning Through Videos, moderated by Amar Agarwal, MD, and Jonathan B. Rubenstein, MD (Friday, 1:15-2:10 p.m.)

Refractive Surgery Subspecialty Day includes the ESCRS session; hot topics selected from the *Journal of Refractive Surgery* by its editor, Brad Randleman, MD; and the classic break with experts—many of these roundtable topics are relevant for your daily practice.

Section 4, “A Quest for Excellence,” uses a learning-through-videos format, which helps educate participants in their

quest for excellence in surgical skills on lens and cornea refractive surgery topics. This session is classic and an International Society of Refractive Surgery (ISRS) meeting favorite. We have videos from a stellar group of surgeons, including legends such as Robert Osher, MD, and Iqbal Ahmed, MD.

—*Renato Ambrósio Jr., MD,*
Refractive Surgery program director

RETINA

North, Hall B

First-time Results of Clinical Trials—

Part I, moderated by Andrew P. Schachat, MD (Friday, 4:22-4:57 p.m.); **Part II**, moderated by Tien Yin Wong, MBBS, and William F. Mieler, MD (Saturday, 11:27 a.m.-12:06 p.m.)

Late-Breaking Developments—Part I, moderated by Lucy H. Young, MD, PhD, FACS (Friday, 4:03-4:22 p.m.); **Part II**, moderated by Mark S. Blumenkranz, MD (Saturday, 8:39-8:59 a.m.)

In keeping with the 2016 AAO theme of “Innovate,” the Retina Subspecialty Day Planning Committee has chosen to include coverage of first-time results of important clinical trials and late-breaking news to allow us to feature the most recent results.

In addition to the emphasis on innovation, there is also an emphasis this year on presenting pragmatic information to the attendees. The committee strove to choose topics and speakers that could impart information useful to the daily practice of retina. To this end, newer imaging modalities will be presented along with practical applications. Diagnostic and prognostic pearls will be relayed. The data from clinical trials will be distilled to make the information useful for retina practice. In addition, reviews of relatively less common, but not rare, and potentially blinding conditions will also be presented. Hopefully, at the end of the meeting, the attendee will feel they are at the cutting edge of knowledge in our field!

—*Jennifer I. Lim MD, FARVO,*
Retina program director

UVEITIS

Grand Ballroom S100c

Graduation, moderated by Albert T. Vitale, MD (Saturday, 4:50-5:15 p.m.)

The final section of the program will give the audience a glimpse into the very exciting and rapidly evolving future of the field of uveitis. First, late-breaking developments, including the MUST follow-up 7-year results and the Visual III data, will be presented along with an update on the ocular manifestations of the Zika virus epidemic. Finally, you will not want to miss the conclusion, “Uveitic Tea Leaves: Predicting the Future of Uveitis Patient Care.”

—*Albert T. Vitale, MD, and Russell W. Read, MD, PhD, Uveitis program directors*

2016 ISRS AWARDS

On Friday, the president of the International Society of Refractive Surgery (ISRS), A. John Kanellopoulos, MD, presents some of the profession’s most prestigious awards at Refractive Surgery Subspecialty Day 2016: Pursuit of Perfection. Following are the awards and their recipients.

2016 José I. Barraquer Lecture and Award: Alaa M. ElDanasoury, MD (Saudi Arabia). The José I. Barraquer Lecture and Award honors a physician who has made significant contributions in the field of refractive surgery during his or her career. This individual exemplifies the character and scientific dedication of José I. Barraquer, MD—one of the founding fathers of refractive surgery. The lecture will take place 4:55-5:15 p.m. during the ISRS Symposium, Therapeutic and Refractive Crosslinking, on Monday, 3:45-5:20 pm, in Grand Ballroom S100ab. **Scott M. MacRae, MD (United States)**, has been selected as the 2017 awardee.

25th Annual Richard C. Troutman, MD, Dsc (Hon) Prize: Sabine Kling, PhD (Switzerland). The Troutman Prize recognizes the scientific merit of a young author publishing in the *Journal of Refractive Surgery* and includes a \$5,000 honorarium from the Troutman Endowment.

Casebeer Award: Steven C. Schallhorn, MD (United States). The Casebeer Award recognizes an individual for his or her outstanding contributions to refractive surgery through nontraditional research and development activities.

Founders’ Award: J. Bradley Randleman, MD (United States). The Founders’ Award recognizes the vision and spirit of the society’s founders by honoring an individual who has made extraordinary contributions to the growth and advancement of the society and its mission.

Kritzinger Memorial Award: George D. Kymionis, MD, PhD (Greece). The Kritzinger Memorial Award was established to honor the accomplishments of Michiel Kritzinger, MD. Each year, a recipient is chosen who embodies the clinical, educational, and investigative qualities of Dr. Kritzinger, who advanced the international practice of refractive surgery.

Lans Distinguished Award: Aylin Kiliç, MD (Turkey). The Lans Distinguished Award is named in honor of Leedert J. Lans, MD, a young, innovative researcher who defined the basics of refractive surgery by working to improve the techniques used to correct astigmatism. The award is given to an individual who has made innovative contributions in the field of refractive surgery, especially in the correction of astigmatism.

Lifetime Achievement Award: Alaa M. ElDanasoury, MD (Saudi Arabia). The Lifetime Achievement Award honors an ISRS member who has made significant and internationally recognized contributions to the advancement of refractive surgery during his or her career.

Presidential Recognition Award: Richard J. Duffey, MD (United States) and David V. Leaming, MD (United States). Dr. Kanellopoulos has selected Drs. Duffey and Leaming for the 2016 ISRS Presidential Recognition Award to honor their dedication to the ISRS U.S. Trends in Refractive Surgery Survey, which they conducted from 2008 to 2015.

Waring Memorial Award for a Young Ophthalmologist: Karolinne M. Rocha, MD (United States). The Waring Memorial Award for a Young Ophthalmologist recognizes an ISRS member early in his or her career who has demonstrated a commitment to ISRS, as well as a commitment to the promulgation of knowledge and the practice of refractive surgery. This award honors Dr. George O. Waring III for his commitment to the profession and ISRS.

TO JOIN ISRS, visit the Member Services desk at the Academy Resource Center (Booth 508), where you can pick up an application form. You also can visit www.isrs.org.

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11 Fun Facts About Richard P. Mills, MD, MPH

Orbital Gala Special Honoree

Richard P. Mills, MD, MPH, is the guest of honor at the Sunday night Orbital Gala. He has held many positions as an Academy volunteer for 3 decades, most notably Academy President (1995), Chair of EyeCare America (2007-2013), and Chief Medical Editor of *EyeNet* Magazine (2002-2016)—all while working in academic and private practice, teaching, and raising a family. Below are a few fun facts about a multifaceted man.

Physician

1 As a medical student, his first patient exam was on a newborn. When he couldn't get his ophthalmoscope to work, the pediatric resident stepped in to help. It turned out that the baby had bilateral cataracts and no fundus view. At that moment, he thought, "This ophthalmology stuff is pretty cool."

2 He majored in biology at Yale University and received his medical degree at Yale University School of Medicine. After his residency at University of Washington, he was certified by the American Board of Ophthalmology in 1974. He completed neuro-ophthalmology fellowships at the University of Utah (1975) and the University of California, San Francisco (1978), and a glaucoma fellowship at the University of British Columbia in Vancouver, Canada (1984).



Dr. Mills and mentor
Dr. Hutchinson.

3 On the clinical side, his mentors were Robert E. Kalina, MD, in Seattle; Henry Van Dyk, MD, in Salt Lake City; William F.

Hoyt, MD, in San Francisco; and Steven M. Drance, MD, in Vancouver. On the Academy side, Tom Hutchinson, MD—the father of the National Eye Care Project—was his role model.

Leader

4 Dr. Mills started out in private practice in Olympia, Wash. Colleagues in the Washington state society quickly discovered that his residence in the state capital enabled him to do emergency lobbying on his lunch hour, and there was plenty to do in the year that the optometric therapeutic drug bill was debated. Despite the fact that the bill passed and was signed by the governor, he was tapped for state society leadership.

5 He stumbled into his first official Academy volunteer position at age 39, after impressing George Weinstein, MD, Secretary for Public and Professional Information, with his use of the term *kleptophakics* to describe what Dr. Weinstein called "cataract buccaneers." Dr. Weinstein made him Chair of the Public Information Committee (1984-1989). By 1989, the committee saw a \$1 million profit from the sale of its newly revamped and expanded patient education brochures.

6 Dr. Mills was a crucial founding member of the National Eye Care



Project (NECP, now known as EyeCare America). In 1983, he put significant time and energy into personally recruiting ophthalmologists throughout Washington State to participate in the NECP pilot program, which delivered eye care, including surgery, to those over age 65 at no out-of-pocket expense.

Since that time, ECA has referred 1.85 million patients to more than 6,000 ophthalmologists for care. Every U.S. President since Ronald Reagan has recognized ECA for volunteerism. From 2007 to 2013, Dr. Mills was Chair of EyeCare America.

7 During his term as President, the Academy sought to partner with an optical company to offer a vision care plan to compete against Vision Service Plan, an optometry-controlled company. After months of secret negotiations, the Academy prepared to launch a pilot project with LensCrafters. At the eleventh hour, LensCrafters was acquired by the Italian frame maker Luxxotica, and the joint vision care plan became a casualty of the acquisition.

From the ashes arose Dr. Mills' masterpiece, "Vision Care: An Opera in Three Acts." Although it was never performed, the program notes survive in the Academy archives.

8 He was Chief Medical Editor of *EyeNet* Magazine from January 2002

to February 2016, writing 148 Opinion columns. He deftly combined medicine, music, philosophy, lexicography, and mythology with pop culture references to Wile E. Coyote and Alice's Restaurant—all while shedding light on important issues facing ophthalmology. He is known to say of his work at *EyeNet*: "My dad would be happy because it's the first time I've actually found a use for my liberal arts education."

Personal

9 He won first place at the Seattle Rose Society's Show in 1971 with a *Tropicana* bloom.

10 A long-time opera buff, Dr. Mills attended his first live performance at the old Metropolitan Opera House in New York—Wagner's *Die Walküre* with Birgit Nilsson. His favorite opera moment was many years later at the new Met in the Lincoln Center, New York, when he was within spitting distance (literally!) of Renée Fleming.



11 His favorite hike is the Ptarmigan Ridge Trail at Mount Baker in the North Cascades, in his home state of Washington.

About the Orbital Gala

Now in its 13th year, the Orbital Gala is an annual fundraising and social event that takes place on Sunday during the annual meeting. Hosted by the Academy Foundation, the evening includes a buffet dinner, dancing, silent auction, and celebration of its special honoree—this year, Dr. Mills—that includes presentation of a tribute book with personal messages from those who donate \$250 or more. Proceeds benefit the Academy's educational, quality of care, and service programs.

Event: Sold out. Tickets for this year's gala are no longer available. Keep an eye on aao.org/foundation next May to secure tickets for the 2017 Orbital Gala in New Orleans.

Tribute: Not too late. Although the tribute book has already been printed, you can still make a gift in honor of Dr. Mills at aao.org/foundation or at the Foundation booth in the Resource Center (Booth #508), and the Foundation will notify him of the gift.

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Reference: 1. OMIDRIA [package insert]. Seattle, WA: Omeros Corporation; 2015.

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AAOE: CODING

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AAOE: NEW PRODUCTS

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- **2017 Retina Coding: Complete Reference Guide.** This book explains the nuances of coding retinal conditions and procedures and provides best practices to document services and submit claims.
- **2017 CPT: The Complete Pocket Ophthalmic Reference.** Ophthalmic-specific CPT codes and descriptions allow you to quickly find the codes you need.
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- **Academy Foundation Donor Reception.** As a special thank-you, the Academy Foundation invites its donors to meet Academy leaders and enjoy refreshments. **When:** Saturday, 4:00-5:00 p.m.
- **Ophthalmology and Ophthalmology Retina: Meet and Greet the Editors.** Authors and peer reviewers: Stop by and meet the editorial board. **When:** Sunday, 1:00-3:00 p.m., and Monday, 9:00-11:00 a.m.
- **EyeCare America Volunteer Reception.** EyeCare America volunteers: Join your colleagues at the Museum of Vision, Booth 704 (next to the Resource Center) as we honor your dedication to this public service program. Invitation required. **When:** Sunday, 3:00-5:00 p.m.
- **Introducing Clinical Webinars: Meet the Experts.** Continue learning from your peers after AAO 2016 with the Academy's new clinical webinar series. Meet the member volunteers who lead and create these interactive opportunities. **When:** Monday, 10:00-11:00 a.m.



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- **Focal Points 2017.** This subscription series features practical hands-on modules that are written and reviewed by leading experts. A 1-year subscription gives you access to a new module each

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On the Clinical Education ONE Network monitors at the Clinical Education Demos desk, you'll find:

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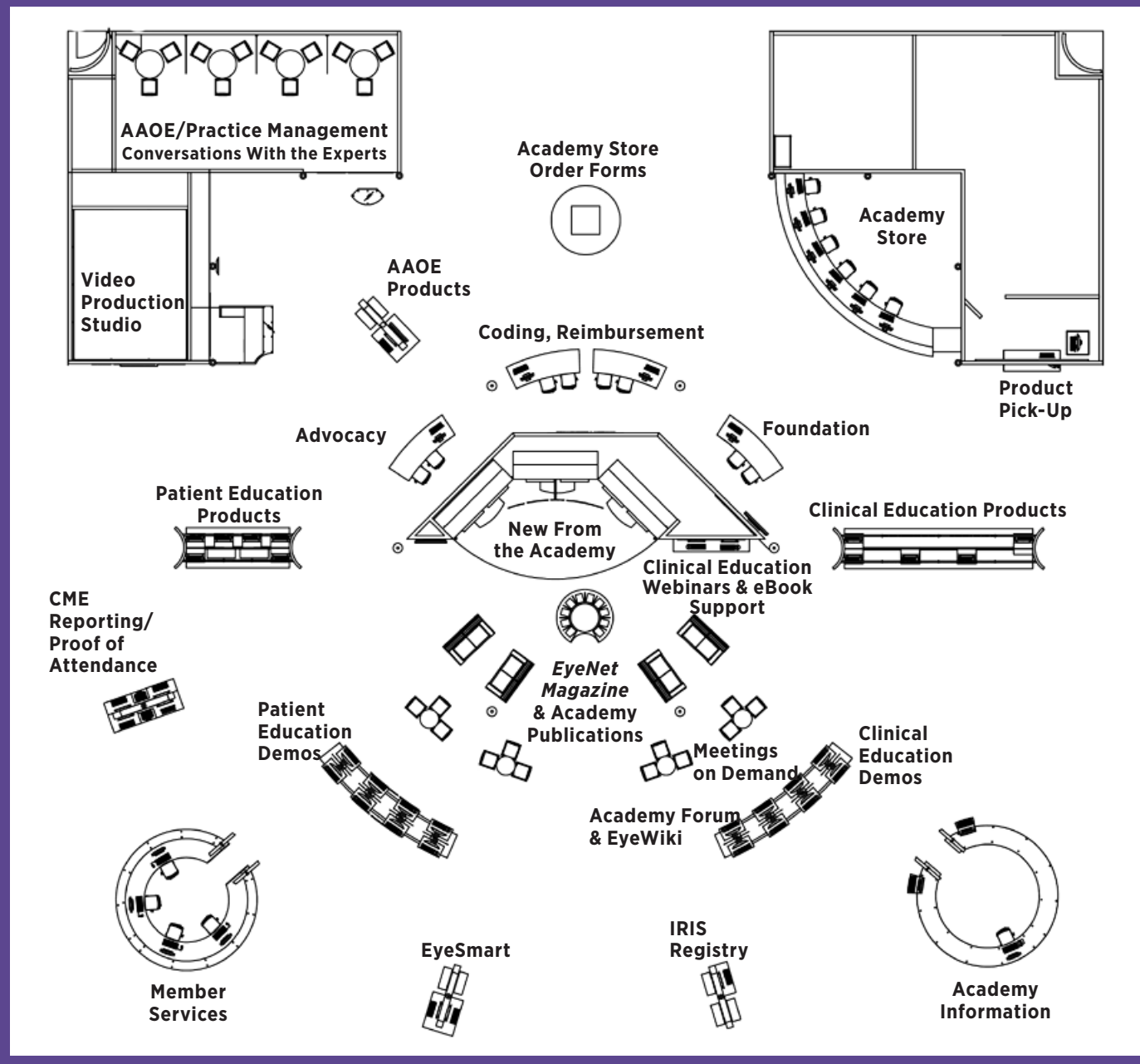
- **OTAs.** See the new *Ophthalmic Technology Assessments* on oculoplastics and pediatric ophthalmology. Available for free from the *Ophthalmology* journal website at aaojournal.org/content/ophthalmictechnologyassessment.

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BOOTH 508



Your Ultimate Guide to Subspecialty Day and AAO 2016

The Mobile Meeting Guide (MMG) is your most comprehensive tool for navigating the meeting. It contains complete Subspecialty Day and AAO 2016 program material, plus a wealth of other useful meeting-related information. Read on for a breakdown of its features, as well as little-known tips and hints to maximize utility.

A web-based app. The MMG can be accessed on any web-enabled device that uses data or Wi-Fi. Wi-Fi is available in all instruction course and session rooms, the Rest Stop at Booth 780, the Breakfast With the Experts area in the South, Hall A, the lobbies, and the Grand Concourse. Note: In order to continuously update the app and its information, the MMG is a browser-based resource rather than a downloadable app.

Getting started. Visit aao.org/mobile and sign in with your Academy member ID and password. Not a member? Use your badge ID number as your username and your last name as your password, then change the password. Not an attendee? Create a new guest account using your email address (guest users cannot participate in discussions or leave messages for attendees).

If you use the MMG without signing in, you can search the program, tour the exhibit hall, and browse meeting information, but you will be unable to use some valuable features, such as the Planner or the messaging option.

Messages

Send messages to other attendees, vote on audience response polls, join online discussions, and view announcements from the Academy.

● **TIP:** When sending a message, keep in mind that the recipient's name will show up only if they are attending the meeting and have signed in to the MMG. Keep an eye out for reminders for *EyeNet* Corporate Lunches!

My Personal Planner

Use your Personal Planner (Fig. 1) to stay organized and on schedule. Add booths to visit, courses and events to attend, and handouts to review. Use the + symbol to add items; to remove an item, select its title to see the details and click the red x. Select Options to import sessions saved during registration, export planner content, print your itinerary and notes, or add personal events. If you export content to your personal calendar, the event details will not update if there are changes to the schedule.

● **TIP:** By adding courses to your plan-

ner, you will automatically receive announcements and updates from presenters in your Messages inbox.

Happening Now

View sessions that are currently in progress as well as Resource Center events, *EyeNet* Corporate Lunches, and other AAO 2016 happenings.

● **TIP:** Use the clock icons in the top right to see what happened earlier as well as what is coming up.

Program Search: Educational Sessions

Browse courses by day, meeting, format, topic, special interest, or room—and you can use more than 1 filter to narrow results (Fig. 2). When you view session details, handout and evaluation options will be visible (if available). Use the Next and Back buttons to page through your results. Be sure to view posters and videos and cast your vote for Fan Favorite Videos. For live-streamed sessions, check out the AAO Virtual Meeting (not eligible for CME credit).

● **TIP:** When you find a session (or exhibitor, hotel, or restaurant), click the map button to find its location.

Explore the Exhibit Hall

Browse exhibitors in alphabetical order or by category, such as digital imaging, pediatrics, and vitrectomy. Once you've found an exhibitor you want to visit, click the map button to locate its booth.

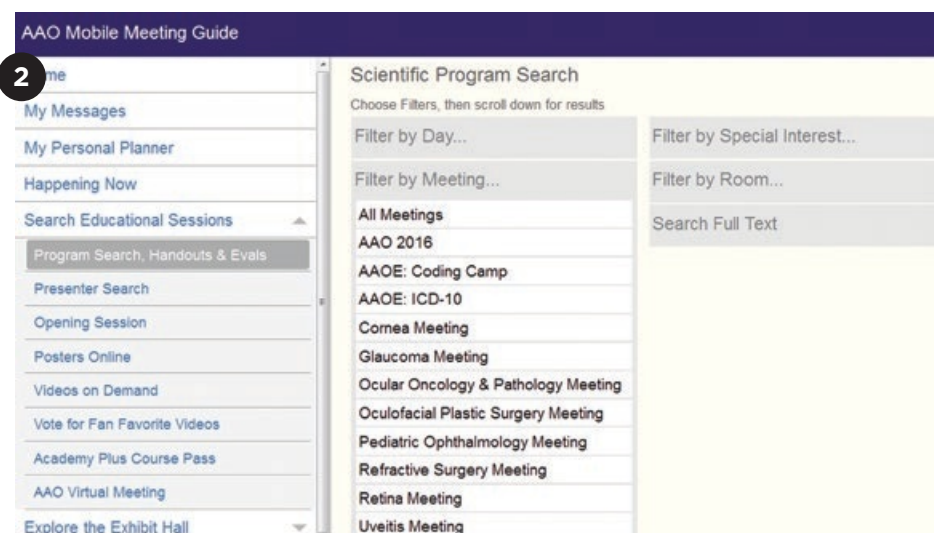
● **TIP:** This section also contains general hall information, the Learning Lounge schedule, the Technology Pavilion Schedule, and Resource Center events.

Meeting Information

Access the meeting directory, which contains locations for key areas, including CME Reporting stations, Bags and Programs, the Business Center, the Oph-

thalmology Job Center, and more. You can also check out Meetings on Demand and AAO TV; get course evaluations, *EyeCare* America details, and information on CME and self-assessment credits; and view a financial interest disclosure key and AAO 2016-related FAQs.

Answers are at your fingertips, whether it's session information, exhibitor booth details, or even nearby restaurants. Check out the Mobile Meeting Guide at aao.org/mobile—your ultimate resource for AAO 2016.



thalmology Job Center, and more. You can also check out Meetings on Demand and AAO TV; get course evaluations, *EyeCare* America details, and information on CME and self-assessment credits; and view a financial interest disclosure key and AAO 2016-related FAQs.

● **TIP:** Starting on Saturday evening, check out AAO TV for 5- to 7-minute videos covering a short synopsis of what happened each day at AAO 2016. Coverage includes discussion of hot topics, interviews with thought leaders, and updates on the exhibition.

Related Events

View details on *EyeNet* Corporate Lunches, alumni and related group events, satellite symposia, and Resource Center events.

● **TIP:** When searching, type in the event's name rather than using the filters for the most efficient results.

Hotels, Shuttles, and Food

Check out details on hotels, shuttle buses, food service in the convention center, and a list of nearby restaurants.

● **TIP:** Food Service in Convention Center shows what is nearby and open; also, the Local Restaurants section has a map and links to the restaurants' websites.

Follow AAO

View the Academy's Facebook, Twitter, YouTube, LinkedIn, and Forum pages. This section also contains information about the Academy and future meetings.

● **TIP:** Access your social media outlets to

share your meeting experience with your network, and use #aao2016.

Resource Router

Access Resource Center handouts and send emails to specific Academy departments, such as Media Relations and the IRIS Registry.

● **TIP:** Use the Resource Center feedback forms to share your thoughts—the Academy values your opinions!

Flight Check-in

Use this section to check in on one of the following airlines: Aeromexico, Air Canada, Air France, Air Jamaica, AirTran, American, British Airways, Delta, Frontier, Japan Air Lines, JetBlue, KLM, Korean Air, Lufthansa, Southwest, Spirit, United, U.S. Airways, and Virgin.

● **TIP:** Visit the Rest Stop (Booth 780) to print your boarding pass.

Mobile Meeting Guide Help

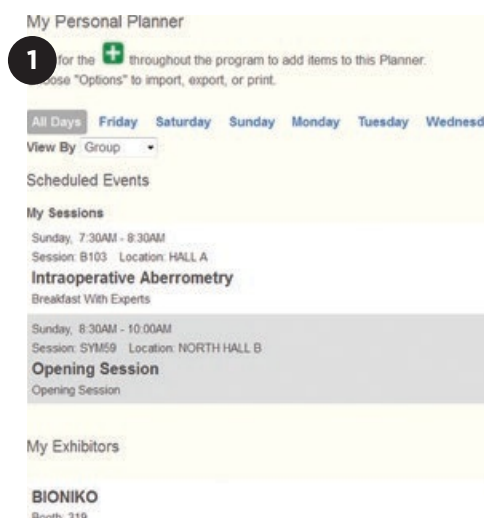
Learn how to sign in, get technical support, and view tutorial videos.

● **TIP:** A Mobile Meeting Guide Information kiosk will be located near the Meeting Information desks at Grand Concourse, Level 3 and South, Level 1, Lobby to assist attendees.

For Presenters: Manage My Sessions

Lead presenters can post a message to attendees and send polls and surveys.

● **TIP:** Use the session's statistics to see how many attendees have the session saved in their planners.



Busting 3 Myths About Patient Education Videos

In today's YouTube world, video is hugely popular for news and entertainment—and now, the flexibility of digital files is boosting its use for patient education.

Years of studies establish the efficacy of videos in patient education,” said Devin A. Harrison, MD, who practices in Richland, Wash. So why aren't more ophthalmologists using video? “Those who don't [use video] generally say they either don't have the time, space, or need. It is time we bust these myths,” said Dr. Harrison, who chairs the Academy Patient Education committee.

Myth #1: Videos Are Too Time-Consuming

Showing a video actually saves you time, said Dr. Harrison. “A 5-minute video that consistently reinforces your explanation of monovision, for instance, can save you a lot of talk time, and it can focus your 1-on-1 discussion to specific questions about this technique.”

Myth #2: We Have No Space to Show Video

No special office space is needed, and you no longer have to reengineer your

BY KIERSTAN BOYD, ACADEMY DIRECTOR OF PATIENT EDUCATION, INTERVIEWING HARDEEP S. DHINDSA, MD, DEVIN A. HARRISON, MD, AND PAUL WEBER, JD.

patient flow. Patients can view video:

- During dilation—perhaps in the waiting room on a tablet or iPad with disposable ear buds.
- In the exam room, while waiting for the doctor.
- After the visit, when video can be sent via your patient portal, viewed on your website, or—for appropriate patients—provided on a thumb drive or DVD.
- At a separate preop visit, when the patient is not overwhelmed with the information and complexities of a regular appointment and has access to staff to answer questions immediately afterward.

A technically savvy person can help you assess your options. If your electronic health record vendor has a booth in the

AAO 2016 exhibit hall, ask if they can help you with the patient portal option.

Myth #3: I Don't Need Video Because I Talk to My Patients

“It's addition, not subtraction,” said Hardeep S. Dhindsa, MD, a retina subspecialist in Reno, Nev. “I'm not eliminating my discussion with a patient but reinforcing it.” After all, you are discussing unfamiliar medical terms and listing multiple benefits and risks while patients are anxious, uncertain, and distracted. Showing educational videos—in addition to having discussions and giving handouts—may be all it takes to markedly improve your patients' expectations, understanding, and compliance.

Video can counter miscues. When you are talking with patients, their perception of what you are saying may be influenced by many variables, said Dr. Dhindsa. “Studies show that we simply

don't know how we come across to other people. I may have to deliver bad news to Patient A, then go into another exam room and tell Patient B they need surgery. Although I try to be a ‘blank slate’ with every patient, the fact is that my interaction with Patient A might inadvertently be carried over into my interaction with Patient B—and, importantly,

I may not be aware of this. When I show the Academy's patient education videos, I know the information is presented in a clear, concise, and neutral way, in a reassuring manner.”

Patients can watch videos when they are better able to process the information. “If a patient comes in with a retinal detachment and I review the mechanism of the condition, along with 3 or 4 treatment options and the risks and benefits of each—that is a lot of information for someone to process. Often, the patient is anxious, which may further limit his or her ability to accurately take in information and make an informed decision,” said Dr. Dhindsa.



ADD VIDEO TO YOUR TOOLKIT. Brief videos can help to reduce patients' anxiety levels, set realistic expectations, strengthen your informed consent process, and reduce malpractice risk. For example, the Retina Collection features 21 videos, including what to expect during an anti-VEGF injection (above).

Risk Management Tips

Video bolsters patient understanding. The Ophthalmic Mutual Insurance Company (OMIC) recommends using patient education videos to help mitigate malpractice risk. “Establishing a good informed consent process begins with asking yourself, ‘What steps can I take to ensure that my patient is properly informed?’” said Paul Weber, JD, vice president of the Risk Management department at OMIC (Booth 1004). In addition to talking with your patient and handing them a brochure, you can take an extra important step toward ensuring their understanding by showing them a video about their condition and the recommended treatment options, said Mr. Weber.

Documenting that the patient was shown a video can help refute a claim of lack of informed consent. Documenting in the patient's record that he or she watched the video should be as routine as—and in the same format as—other documentation. “It shows that you delivered a consistent, accurate, and engaging message about treatment options and their benefits, risks, and alternatives,” said Mr. Weber.

Dr. Dhindsa is a retina subspecialist based in Reno, Nev. *Relevant financial disclosures: None.*

Dr. Harrison is a comprehensive ophthalmologist in Richland, Wash., and chairs the Academy Patient Education Committee. *Relevant financial disclosures: None.*

Mr. Weber is vice president of Risk Management at OMIC. *Relevant financial disclosures: None.*

Preview, Buy, and Customize

See for yourself. Visit the Patient Education Demo screens in the Academy Resource Center. Academy staff will be on hand to answer questions.

There are 5 subspecialty-specific libraries of videos:

- Cataract and Refractive Surgery Collection (21 topics)
- Glaucoma Collection (9 topics)
- Oculoplastics Collection (7 topics)
- Pediatric Collection (9 topics)
- Retina Collection (21 topics)

The videos are:

- Concise (5 minutes or less). Also, they include patient-friendly animations, have high-definition resolution, and are free of advertising.
- Viewable on any platform.
- Available in English and Spanish (both versions included in each collection).
- Supportive of the informed consent process.

Put patient downtime to good use. The Waiting Room Video for the Ophthalmic Practice (Vol. 3) covers 16 topics, including AMD, cataracts, glaucoma, and more.

Star in your own video—the Academy will provide the script, teleprompter, and studio. Working with a team of professional videographers in a soundproof studio, you can customize an Academy video by filming your own introduction. You also can film a practice ad or a public service announcement. You can edit one of the scripts provided or write your own from scratch. Create your video today (walk-in appointments available) or make an appointment for later in the week.

Save 10% if you buy today. During AAO 2016, enjoy 10% off all products purchased onsite at the Academy Store.

Where: The Academy Store, Patient Education Demo area, and the Video Production Studio are all located in the Academy Resource Center (Booth 508).



AAO 2016 Best of Show: 6 Must-See Videos

The Best of Show winners are listed below and will be featured at an awards ceremony on Tuesday, 10:30-11:45 a.m., in the Learning Lounge, Theater 1 (Booth 126).

This year's scientific program consists of 62 videos (see the *Meeting Program* for the full list), viewable at the Videos on Demand computer terminals at Booth 65 and in the Lakeside Center. You also can view these videos on your own device via the Mobile Meeting Guide or by visiting aao.org/programsearch. You can search the video program by subspecialty, video title, video number, or keyword.

CATARACT Crime Scene Investigation Heidelberg: Unfolding the Characteristics of Preloaded IOL Systems (V05)

Preloaded foldable hydrophobic intraocular lenses are widely used in cataract surgery. This video analyzes unfolding characteristics of preloaded IOL systems in vivo as well as in vitro, including autopsy eyes photographed with the Miyake-Apple technique and a new side-view capsular bag extension technique. Analysis of preloaded systems from AMO, Alcon, Carl Zeiss, and Hoya, as well as clinical and laboratory data, will be presented. *Senior Producer: Gerd U. Auffarth, MD.*

Symmetric Scaffold, Stable IOL (V09)

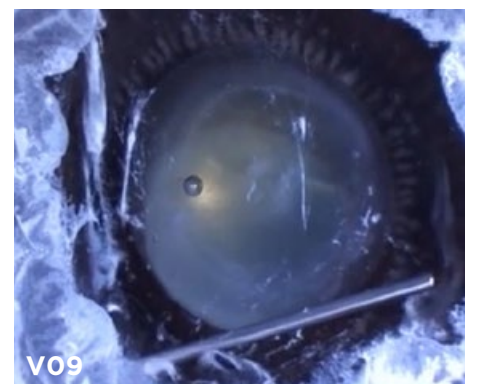
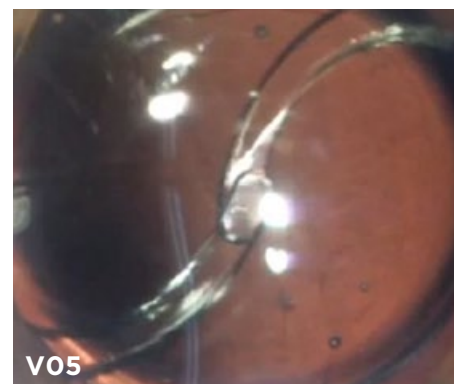
Managing the vitreous in posterior capsular rupture (PCR) is a challenge for the cataract surgeon. Despite adequate vitreous management, IOL stability is often not perfect. Surgeons always aim to remove vitreous from the anterior chamber in a manner that will achieve stable IOL fixation after PCR. This film highlights the value of performing a symmetric anterior vitreous face removal, creating a symmetric scaffold for stable IOL fixation. We use case scenarios, animations, and experiments to demonstrate the importance of removing prolapsed anterior vitreous symmetrically behind the IOL optic for better IOL stability. We also compared the limbal approach with the pars plana approach, and we found the latter to be better in this setting. Clearing prolapsed anterior vitreous symmetrically behind the posterior capsule can help to achieve more symmetric IOL placement. *Senior Producer: Abhay Raghukant Vasavada, MBBS, FRCS.*

Beware the Wolf in Sheep's Clothing: Posterior Capsule Rupture Due to Silicone Irrigation/Aspiration Tips (V10)

Since the introduction of reusable silicone irrigation and aspiration (I&A) tips in 2002, the incidence of posterior capsule rupture (PCR) due to I&A has been exceptionally rare when these tips are used. This video reviews a series of cases of PCR due to reusable silicone I&A tips that occurred in our surgical center over a 3-month period. Intraoperative management of PCR is reviewed, and a root cause analysis of these complications was performed. Improper handling and care of the tips was initially identified as the cause. However, despite following the manufacturers recommendations for care and handling, additional cases of PCR caused by these tips continued to occur. Scanning electron microscopy of the I&A tips revealed large jagged burrs in the metal tubing underlying the outer silicone sleeves. Burrs were noted not only in tips that were involved in PCRs but also in new unused tips. Burrs caused PCRs either by eroding through the silicone sleeves or through aspiration of the posterior capsule through the aspiration port. Exposure of the posterior capsule to these sharp burrs was the cause for PCR. *Senior Producer: John C. Hart, MD, FACS.*

CORNEA/EXTERNAL DISEASE ... And a Tooth for an Eye: The Osteo-Odonto-Keratoprosthesis Procedure Explained (V16)

Although a rather old surgical technique, osteo-odonto-keratoprosthesis (OOKP) is often still the sole and last treatment option for visual rehabilitation in patients with severe corneal blindness in whom conventional corneal transplants will not be successful. The results can be surprisingly good, with patients who had not seen for years and after successful treatment see even 20/25 or better and become independent again. So far, no educational video existed for this complicated procedure. The video explains and illustrates in detail the surgical steps of the 2-stage OOKP procedure in patients operated on at the University Hospital Basel in Switzerland. *Senior Producer: David Goldblum, MD.*



REFRACTIVE SURGERY Presbyopic Allogenic Refractive Lenticule (V45)

Presbyopic allogenic refractive lenticule is a new technique to treat presbyopia using the small incision lenticule extraction. The use of an allogenic corneal inlay is a novel means of treating presbyopia. This small femtosecond-carved lenticule acts as a shape change inlay by increasing the central radius of curvature resulting in a hyperprolate corneal shape. This technique has proven to be very useful in improving near vision while retaining good distance visual acuity in the operated eye. Initial studies have been very encouraging. In addition, unlike synthetic implants, there is unhindered passage of oxygen and nutrients and greater biocompatibility allowing good integration into the cornea while avoid-

ing any of the potential problems related to synthetic material. *Senior Producer: Soosan Jacob, FRCS.*

VISION REHABILITATION Posttraumatic Anisocoria With Transparent Lens: A New Surgical Approach (V61)

Anisocoria is a condition in which the patient's pupils are of an unequal size, and it can have a variety of causes. This video presents a new surgical technique, making use of instruments that ophthalmologists know well, in treating a broken iris sphincter secondary to blunt trauma in a 50-year-old woman. This new surgery reduces iris dilation, allowing the iris to function normally, and avoids secondary damage to the crystalline lens. *Senior Producer: Fernando Gonzalez Del Valle, MD.*

IRIS Registry-Compatible EHRs: Do a Quick Comparison

Leading EHR vendors are working to integrate their products with the IRIS Registry.

To help you choose between electronic health record (EHR) systems, the Academy Medical Information Technology Committee published in *Ophthalmology* journal “Special Requirements for Electronic Health Record Systems in Ophthalmology.”

The 2011 article included a list of 23 EHR features deemed essential or desirable for ophthalmology. Many systems now offer all of the features or say they will soon. To help you compare systems, the Academy staff asked EHR vendors which of the 23 features they offer (pages

22-23) and also requested general information about their systems (below).

Vendor selection. EHR integration with the IRIS Registry is increasingly important to the efficient and profitable practice. This table features the top vendors that have integrated (or are working to integrate) their client practices with the Academy’s IRIS Registry and who replied to our call for information. Please stop by the booths of the

vendors below to learn more about their products.

MU Stage 3. When you talk with EHR vendors during the AAO 2016 Exhibition, be sure that the version of any product you are interested in purchasing meets the requirements for meaningful use (MU). Learn the latest about MU at any of these 5 instruction courses: Meaningful Use EHR Incentives? Ask Us! (261); Change Management: Improv-

COMPANY NAME	Compulink Business Systems	Doctorsoft	Epic	EyeMD EMR	First Insight Corporation	ifa united i-tech	
Booth number	1435	4401	NA	557	1271	4050	
PRODUCT NAME AND VERSION	Compulink Advantage (v11)	Doctorsoft EHR (v2.1)	EpicCare (Epic 2014)	EyeMD EMR (v1.2)	MaximEyes EHR (v2.0.2.0)	ifa (v7)	
GENERAL INFORMATION							
Modules available (ASC for ambulatory surgery center, EP for electronic prescribing, O for optical, PMS for practice management system)	ASC, EP, O, PMS	EP, PMS	ASC, EP, PMS	EP, O	EP, O, PMS	ASC, EP, O	
Does your product accommodate cloud-based setups, client-server systems, or both?	Both	Cloud	Client-server	Both	Cloud	Client-server	
Does your EHR meet the 2015 Edition Health IT Certification Criteria?	N	Y	NR	P (early 2017)	P (2017)	Y	
Does your contract guarantee your software will meet future meaningful use criteria (Stage 3)?	Y	Y	NR	Y	Y	Y	
How long have you been in the ophthalmology EHR market? (in years)	31	5	24	8	22	31	
How many academic ophthalmology EHR practice installations have you completed?	NR	0	NR	8	0 (P 2018)	3	
How many private practice ophthalmology EHR practice installations have you completed?	880	55	NR	452	223	96	
How many total ophthalmologists are represented by those installations listed above?	2,600	143	NR	1,245	350	575	
How many practices were fully integrated with the IRIS Registry as of Aug. 5, 2016?	242	29	36	257	18	37	
Do you charge practices a fee for IRIS Registry integration?	N	N	NR	N	N	Y	
Do you license Academy patient education content for integration at client's request? (Current as of June 13, 2016)	N	Y	N	Y	N	Y	
Is 24-hour support available?	Y	Y	Y	Y	N	Y	
What are your standard support hours during the week?	M-F 4:30am-5pm, Sat 5am-noon (PT)	M-F 7:30am-6pm (PT)	24/7	M-F 8:30am-5:30pm (ET)	M-F 5am-5pm, Sat 6am-noon (PT)	24/7	

Y = Yes, our current product includes this feature; N = No, we do not include this feature in current products and have no immediate plan to include; P = We plan to include this feature (date). NA = Not applicable; NR = No response. * Additional charges may apply. Data current as of Aug. 5, 2016.

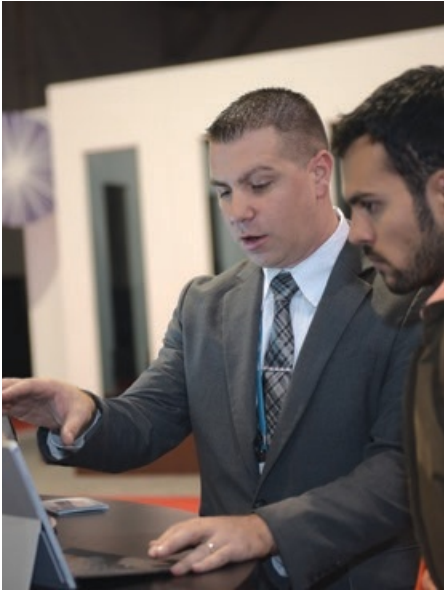
ing EHR Efficiency and Meaningful Use Success (402); Patient Portals and the Patient Service Strategy (519); The World of Audits: Strategies for Managing Audits for Fraud and Abuse, Coding, HIPAA, Meaningful Use, and Quality (472); and Meaningful Use FAQs (631). Details are available at aao.org/programsearch.

MIPS. On April 27, the Centers for Medicare & Medicaid Services released its proposed rule outlining the new value-based payment system required under the Medicare Access and CHIP Reauthorization Act (MACRA). The proposed rule consolidates the Physician Quality Reporting System, MU, and other federal reporting programs into one: the Merit-Based Incentive Payment System (MIPS). MACRA will have a significant impact on Academy members. The Academy is committed to helping members succeed

in this new environment and expects that the IRIS Registry will continue to help members meet federal quality-reporting requirements, which is why it is critical for your EHR vendor to cooperate with the IRIS Registry.

Interoperability. Sponsored by the Academy with help from Carl Zeiss Meditec, The Electronic Office (Booth 121) shows how EHR and digital imaging systems can easily communicate and how they can exchange data and images. This data exchange helps with the consistent handling of patient identifiers across different systems, from patient registration to appointment scheduling and beyond.

Academy patient education materials. Note that some companies license Academy patient education content to integrate within their systems. If your EHR vendor is one of these Academy



At The Electronic Office (Booth 121), learn how EHR and diagnostic, imaging, and other devices can easily communicate.

partners, contact your EHR representative to request integration of Academy patient education into your module. If your EHR provider isn't yet a partner, urge them to become one.

EyeNet Supplement. Look for the October *EyeNet* supplement in your AAO

2016 meeting bag. It is titled "Improve Your Use of EHRs," and it has advice on using an EHR to improve your practice systems and bottom line. It also shows how to use the IRIS Registry's new analytics module and its measures dashboard to help evaluate your clinical outcomes and compare your performance to national benchmarks. Plus, it includes a guide to EHR sessions at AAO 2016.

DISCLAIMER: All information and claims are those of the vendors and have not been verified, nor does the appearance of the product constitute an endorsement of the company or product by the American Academy of Ophthalmology, *EyeNet Magazine*, or *Academy News*.

Oscar Einzig

	iMedicWare	Integrity Digital Solutions	KeyMedical Software	ManagementPlus	MDIntelleSys	MDoffice	Medflow	Modernizing Medicine	Nextech Systems	NextGen Healthcare	SRSsoft
	3574	3570	2100	1950	NA	1650	1635	4017	107	3862	747
	iDOC (v6.3.7)	Integrity EMR For Eyes	KeyChart (v5.1)	Management-Plus (v6.0)	IntelleChart (v6.6.3)	MDoffice (v10.3)	Medflow 2.0 (v10.1) EHR	EMA Ophthalmology (v4.0.0.8)	Nextech (v12.3)	NextGen Ambulatory EHR	SRS EHR (v9)
	ASC, EP, O, PMS	EP	ASC, EP, O, PMS	ASC, EP, O, PMS	ASC, EP, O, PMS	ASC, EP, O, PMS	EP, O, PMS	EP, PMS	ASC, EP, O, PMS	ASC, EP, O, PMS	EP, PMS
	Both	Cloud	Cloud	Both	Cloud	Both	Both	Cloud	Both	Both	Both
	Y	Y	NR	Y	P (2017)	Y	2014 Edition	P	P (2017)	Y	P (2016-2017)
	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	Y
	10	6	14	21	13	12	17	5	14	21	18
	3	3	0	0	3	2	0	2	0	40	3
	300	150	65	150	450	320	570	303	175	NR	120
	1,100	600	150	607	1,307	960	2,850	1,013	780	4,000	653
	58	95	28	80	292	109	285	131	107	322	77
	N	N	NR	N	N	N	N	Y*	N	NR	N
	Y	N	N	Y	N	Y	Y	N	N	N	N
	Y	Y	Y	N	Y	Y	Y	N	Y	Y	Y
	24/7	M-F 7am-7pm (CT)	M-F 8am-8pm (ET)	M-F 6am-5:30pm (MT)	24/7	M-F 8am-8pm (ET)	M-F 7am-9pm, Sat 8am-6pm (ET)*	M-F 8am-8pm, Sat/Sun 8am-8pm (ET)	M-F 7am-8pm (ET)	24/7	24/7

23 Special Features for Electronic Health Record (EHR) Systems in Ophthalmology

COMPANY NAME		Compulink Business Systems	Doctorsoft	Epic	EyeMD EMR	First Insight Corporation	ifa united i-tech	
Booth number		1435	4401	NA	557	1271	4050	
PRODUCT NAME AND VERSION	Essential (E), Desirable (D)	Compulink Advantage (v11)	Doctorsoft EHR (v2.1)	EpicCare (Epic 2014)	EyeMD EMR (v1.2)	MaximEyes EHR (v2.0.2.0)	ifa (v7)	
CLINICAL DOCUMENTATION								
Enable entry and storage of all ophthalmology-specific data required to support AAO <i>Preferred Practice Patterns</i>	E	Y	Y	Y	Y	Y	Y	
Organize ophthalmology-specific elements separately (e.g., past ocular history, ocular medications)	E	Y	Y	Y	Y	Y	Y	
Conform or map to vendor-neutral standard terminologies (e.g., SNOMED CT, ICD) to represent problem lists	E	Y	Y	Y	Y	Y	Y	
Conform or map to RxNorm to represent medications	E	Y	Y	Y	Y	Y	Y	
Conform or map to vendor-neutral standard terminologies (e.g., SNOMED CT) to represent diagnoses and procedures	E	Y	Y	Y	Y	Y	Y	
Conform or map to vendor-neutral standard terminologies (e.g., SNOMED CT) to represent allergies and clinical findings	D	Y	Y	Y	Y	Y	Y	
Enable physicians and technicians to keep multiple records open simultaneously and securely in different rooms, with easy re-authentication	E	Y	Y	Y	Y	Y	Y	
Provide tools for incorporating color drawing, including ocular templates	E	Y	Y	Y	Y	Y	Y	
Analyze clinical workflow before and after EHR implementation	E	Y	Y	Y	Y	Y	Y	
Exchange full set of ophthalmic clinical data with EHRs from other vendors	D	Y	Y	Y	Y	Y	Y	
Link clinical documentation to billing and charge capture and integrate with practice management	D	Y	Y	Y	Y	Y	Y	
Allow physician to review patient information easily before entering room	D	Y	Y	Y	Y	Y	Y	
OPHTHALMIC VITAL SIGNS AND LABORATORY STUDIES								
Record visual acuity and refractive discrete elements in accordance with DICOM Supplement 130	E	Y	P (Q4 2017)	Y	Y	Y	Y	
Record IOP as a discrete data element	E	Y	Y	Y	Y	Y	Y	
Display and graph visual acuity and IOP over time	E	Y	Y	Y	Y	Y	Y	
MEDICAL AND SURGICAL MANAGEMENT								
Electronically associate all preoperative, operative, and postoperative documents	E	Y	Y	Y	Y	Y	Y	
Support documentation of office-based and OR procedures	E	Y	Y	Y	Y	Y	Y	
Allow physician to generate operative report at time of surgery	D	Y	Y	Y	Y	Y	Y	
OPHTHALMIC MEASUREMENT AND IMAGING DEVICES								
Conform to vendor-neutral standards (e.g., DICOM) for receipt and representation of data from all ophthalmic instruments and devices	E	Y	Y	Y	Y	Y	Y	
Conform to vendor-neutral standards and profiles for ordering ophthalmic imaging and measurement studies (e.g., DICOM Modality Worklist and IHE Eye Care Workflow)	E	Y	P (Q4 2017)	Y	Y	Y	Y	
Document completion and interpretation of ophthalmic imaging and measurement studies	E	Y	Y	Y	Y	Y	Y	
Request, retrieve, display, and communicate all imaging and measurement data generated by ophthalmic instruments in a standard vendor-neutral format (e.g., DICOM)	E	Y	P (Q4 2017)	Y	Y	Y	Y	
Manage all ophthalmic imaging data in vendor-neutral format (e.g., DICOM), or provide tight integration with external PACS in vendor-neutral format	D	Y	P (Q4 2017)	Y	Y	Y	Y	

The MIT committee has classified items as either essential (E) for current systems or as desirable (D) for current systems and essential for future systems (see introduction, previous pages). **DICOM** = Digital Imaging and Communications in Medicine, **PACS** = Picture Archiving and Communication System. **Y** = Yes, our current product version includes this feature; **N** = No, we do not include this feature in current products and have no immediate plan to include; **P** = We plan to include this feature (date); **NR** = No response. **Data current as of June 17, 2016.**

	iMedicWare	Integrity Digital Solutions	KeyMedical Software	Management-Plus	MDIntelleSys	MDoffice	Medflow [†]	Modernizing Medicine	Nextech Systems [†]	NextGen Healthcare [†]	SRSsoft
	3574	3570	2100	1950	NA	1650	1635	4017	107	3862	747
	iDOC (v6.3.7)	Integrity EMR For Eyes	KeyChart (v5.1)	Management-Plus (v6.0)	IntelleChart (v6.6.3)	MDoffice (v10.3)	Medflow 2.0 (v10.1) EHR	EMA Ophthalmology (v4.0.0.8)	Nextech (v12.3)	NextGen Ambulatory EHR	SRS EHR (v9)
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
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New Thinking in Ophthalmology

10 Honorary Lecturers Preview Their Presentations

The Opening Session and many Academy symposia are capped by an honorary lecture. These informative presentations by leaders in their fields are easy to fit into your schedule, as they are usually from 15 to 35 minutes long. Preview the highlights of 10 lectures, below, and 11 more in the Sunday Academy News.

FRIDAY, Oct. 14

RETINA

The Charles L. Schepens, MD, Lecture: Management Options for Vitreomacular Traction: Use an Individualized Approach, presented by Harry W. Flynn Jr., MD.

When: Friday, 9:44-10:50 a.m., during Retina Subspecialty Day 2016.

Where: North, Hall B.

"In the 2016 Charles Schepens Lecture, I will explore the various management options for vitreoretinal traction (VMT) disorders. Today's options include pars plana vitrectomy,



pneumatic vitreolysis, enzymatic vitreolysis, and observation. I will present updates on each of these treatments and will review newer techniques and drugs that may offer better nonsurgical options. The final management decision should be individualized for each patient depending on the risk/benefit/cost ratio of each option. Analysis of outcomes data from ongoing clinical trials and future research will add to our ability to make the best decisions for our VMT patients."

Retina Subspecialty Day 2016: Winds of Innovations (Friday, 8:00 a.m.-5:31 p.m., and Saturday, 8:00 a.m.-5:10 p.m.) is organized in conjunction with the American Society of Retina Specialists, the Macula Society, the Retina Society, and Club Jules Gonin.

SATURDAY, Oct. 15

GLAUCOMA

The American Glaucoma Society Subspecialty Day Lecture: Primary Open-Angle Glaucoma Redefined, presented by Louis R. Pasquale, MD, FARVO.

When: Saturday, 11:45 a.m.-12:15 p.m., during Glaucoma Subspecialty Day 2016.

Where: Grand Ballroom S100ab.

"Primary open-angle glaucoma (POAG) is a seemingly idiopathic, intraocular pressure-related optic neuropathy that is the leading type of glaucoma in the Western world. I will highlight the reverse engineering cycle of discovery

aimed at taking the 'P' out of POAG, as this disease has several secondary causes. In the future, research efforts that reveal the underlying mechanisms of



POAG will lead to precision medicine strategies to detect and manage it. In the meantime, I will provide practical advice regarding ways to translate the emerging evidence regarding the disease

mechanisms into the current care of POAG patients."

Glaucoma Subspecialty Day 2016: Innovations in Glaucoma Care: Revolution and Evolution (Saturday, 8:00 a.m.-5:15 p.m.) is organized in conjunction with the American Glaucoma Society.

SUNDAY, Oct. 16

REFRACTIVE CATARACT

Jackson Memorial Lecture: Hiding in Plain Sight: The Enigmatic Cornea and IOL Calculations, presented by Douglas D. Koch, MD.

When: Sunday, 9:33-9:58 a.m., during Sym59, the Opening Session.

Where: North, Hall B.

"Despite the cornea's deceptively accessible location, clinicians encounter ongoing difficulties in capturing the corneal optical data required to optimize IOL selection. These issues fall into 3 categories: spherical equivalent power, astigmatism, and higher-order aberrations.



Corneas outside the 'normal' category obviously pose the greater challenge. I will discuss our progress and the problems yet to be solved—and their potential solutions."

The Opening Session (8:30-10:00 a.m.)

PEDIATRIC OPHTHALMOLOGY

Marshall M. Parks Lecture: Ocular Motor Misbehavior in Children: Where Neuro-Ophthalmology Meets Strabismus, presented by Michael C. Brodsky, MD.

When: Sunday, 11:38-11:58 a.m., during Sym06, Pediatric Neuro-Ophthalmology: Kids Aren't Little Adults.

Where: Grand Ballroom S100c.

"This lecture will focus on paradigm shifts that have occurred in our understanding of the efferent visual system in the field of pediatric neuro-ophthalmology. I will discuss neurological discoveries pertaining



to efferent ocular motor disorders, such as the paradoxical pupillary phenomenon, tonic upgaze, congenital fibrosis syndrome, and Joubert syndrome, and will use these discoveries to explain the constellation of unique eye movements that characterize each condition."

Pediatric Neuro-Ophthalmology: Kids Aren't Little Adults (10:30 a.m.-noon) is cosponsored by the American Association for Pediatric Ophthalmology and Strabismus.

CORNEA

Castroviejo Lecture: Surgical Treatment of Presbyopia: The Journey From Corneal Refractive Surgery to Smart Intraocular Lenses, presented by Dimitri T. Azar, MD.

When: Sunday, 12:10-12:30 p.m., during Sym08, Case-Based Corneal Conundrums.

Where: Grand Ballroom S100ab.

"This lecture will describe recent surgical efforts to treat presbyopia. The first milestone on this journey is monovision, which remains the main surgical approach for presbyopic patients with myopic refractive errors. Another milestone is the development of Fresnel



and multifocal corneal surgery, as well as wavefront- and pupillometry-guided corneal refractive surgery. Comparison of LASIK monovision to other corneal refractive procedures for the treatment of hyperopia and presbyopia will be discussed, as will treatment of presbyopia during cataract surgery. The most recent milestone is the development of smart accommodating intraocular lenses by Google/Verily. The lecture concludes with novel technologies to overcome the major impediments to attaining the holy grail of continual accommodation following cataract surgery."

Case-Based Corneal Conundrums (10:30 a.m.-12:30 p.m.) is cosponsored by the Cornea Society and Sektion Kornea of the German Ophthalmological Society.

OPHTHALMOLOGY AND THE ARTS

Michael F. Marmor, MD, Lecture: The Alchemy of Color in 19th Century Art, presented by Francesca Casadio, PhD.

When: Sunday, 12:50-1:15 p.m., during Sym11, Michael F. Marmor, MD, Lecture in Ophthalmology and the Arts.

Where: Room S406a.

"Beauty is in the eye of the beholder; just like color perception. But what if the colors we see today are not the ones art-

ists intended us to see?

"The boom in the chemical industries caused an explosion of new colors on the Impressionist palette, but the apparently unlimited chromatic possibilities opened up by these new materials came at a cost: We now know that many of the colors used by 19th century artists have changed over time. Today, as a museum scientist (or art detective), I rely on sophisticated techniques of analysis to expose the chemistries that have caused significant color changes in many of our beloved Impressionist and post-Impressionist paintings. Did you know that Van Gogh's Bedroom originally had purple walls? This lecture will present several examples drawn from the examination of paintings from Renoir to Van Gogh, Monet to Matisse, Gauguin to Munch, including many works in the collection of the Art Institute of Chicago and from around the world."

Michael F. Marmor, MD, Lecture in Ophthalmology and the Arts (Sunday, 12:45-1:45 p.m.)



NEW! RETINA

Arnall Patz Lecture: The Retina Specialist: Do We Practice Evidence-Based Medicine? presented by Paul Sternberg Jr., MD.

When: Sunday, 1:35-2:00 p.m., during Sym60, Arnall Patz Lecture.

Where: Grand Ballroom S100ab.

"Along with escalating costs and inequality in access, major variation in accepted clinical practice is considered the third major issue facing health care in this country. Considerable amounts of data across medicine demonstrate that a large percentage of clinicians are slow to adopt many clinical care guidelines, often despite overwhelming evidence. In fact, the probability that physicians will follow practice guidelines is about 50%. The reasons are multiple: lack of knowledge, conflicting studies, problems with the research. Very few papers have looked at the performance of ophthalmologists relative to other specialists; however, existing literature certainly does not suggest that we do any better!

"As retina specialists, we have been active in performing meaningful randomized clinical trials to guide our treatment for a wide variety of conditions from ROP to PVR. As a result, we have strong



evidence to guide our treatment of neovascular AMD and macular edema from BRVO or CRVO—and studies suggest that our practices are consistent with these guidelines. However, there are also a number of good examples where we may be making clinical decisions that are not evidence based: our selection of agents for the initial treatment of neovascular AMD, the benefit and timing of switching agents for neovascular AMD, or even our use of steroids to reduce the risk of PVR.

“The Academy Preferred Practice Patterns and the Cochrane Database are excellent resources to help guide our clinical decision making. When high-level evidence exists, we do pretty well but could do better. When low-level evidence exists, we must rely on our clinical judgment. When there is little to no evidence, it is critical that we are guided by the age-old principle ‘do no harm.’”

Arnall Patz Lecture (1:30-2:00 p.m.) is cosponsored by the Macula Society.

OCULOPLASTICS

Wendell L. Hughes Lecture: *Advances in Military Ocular and Combat Casualty Care: Translating Lessons Learned in War to Peacetime Practice*, presented by Col. Robert A. Mazzoli, MD.

When: Sunday, 3:03-3:28 p.m., during

Sym14, Antibiotic Resistance and Its Impact on Oculofacial Surgery.



Where: Room S406a.

“Despite historically high rates of eye injuries and devastatingly complex systemic traumas, current U.S. combat casualties have an unprecedented

survival rate of approximately 95%, a result of deliberate systems-level improvements in prevention, communication, evacuation, and treatment. Predictably, hard-learned lessons are translated from the battlefield to improve civil care.

“Ocular casualty care has similarly benefited, as military ophthalmologists applied their own lessons for systems improvement.

“Drawing comparisons to prior conflicts, this talk will discuss selected changes to the U.S. combat casualty care system, focusing on ocular casualty care. Lessons learned are easily adaptable to peacetime practice. Given the increasing worldwide incidence of civil mass casualty incidents with military-style injuries, adoption of these lessons would benefit many communities.”

Antibiotic Resistance and Its Impact on Oculofacial Surgery (2:00-3:30 p.m.) is cosponsored by the American Society of Ophthalmic Plastic & Reconstructive Surgery.

CORNEA

Whitney G. Sampson Lecture: *Myth-Busting in Refractive Surgery: Corneal Inlays for Presbyopia, and More*, presented by Julian D. Stevens, DO.

When: Sunday, 3:04-3:28 p.m., during *Sym15, Myth-Busting in Refractive and Cataract Surgery.*

Where: Room E450.

“Corneal inlays are coming of age after more than 6 decades of development. Early pioneers, such as José Ignacio Barraquer and Peter Choyce, had the vision, but it has taken all this time to develop it to the point of widespread clinical use. There are now a number of inlays being developed, and some that are already approved in the United States, as well as worldwide. This lecture is a journey through the development of inlays to the current state, and it will look at the mechanism of action of the various devices. It deals with the intended benefits and the current issues. Not only are inlays being used for presbyopia but also they are being developed as a therapeutic modality in the future.”



Myth-Busting in Refractive and Cataract Surgery (2:00-3:30 p.m.) is cosponsored by the Contact Lens Association of Ophthalmologists.

OCULOPLASTICS/PROSTHETICS

Ruedemann Lecture: *Past, Present, and Future*, presented by James V. Strauss, BCO, FASO.

When: Sunday, 3:08-3:28 p.m., during *Sym13, Congenital Anomalies: The Management of Anophthalmia, Microphthalmia, and Other Congenital Disorders.*

Where: Room E350.

“In the past, it was virtually unheard of for ophthalmic plastic surgeons and ocularists to share ideas and concerns. The surgeon selected enucleation or evisceration and then chose an implant with little thought of how it would affect the ocularist’s ability to make a suitable prosthesis.

“Today, the lucky ocularist is one who has a closer relationship with the ophthalmic plastic surgeon. When they put their heads together prior to surgery, this gives their patient the best result. And the future will bring new techniques and ideas created by both surgeons and ocularists.”



Congenital Anomalies: The Management of Anophthalmia, Microphthalmia, and Other Congenital Disorders (2:00-3:30 p.m.) is cosponsored by the American Society of Ocularists.

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Academy Tour Program Chicago Edition

This year, the Academy has partnered with local tour company, Chicago Detours, for a program of walking and bus tours that explore interior architecture, historic bars, jazz and blues, and Chicago's vibrant neighborhoods. Check out these offerings for adventures you'll remember for years to come. New this year: Spouses and guests no longer need to register for AAO 2016 in order to purchase tour tickets.

To purchase tickets, visit the Chicago Detours booth next to the Restaurant Reservations and New Orleans 2017 booths on South, Level 2.5 next to the Grand Concourse, or visit www.chicago-detours.com/aa0.

10 Big Ideas That Make Chicago Its Own Kind of Town

Perfect for both Chicago newbies and locals alike, this 45-minute, thought-provoking talk explores what distinguishes Chicago as a city, from its architecture and infrastructure to its people. Bring your questions about fun things to do in Chicago. **When:** Friday, 9:30-10:15 a.m. **Where:** Chicago Detours booth next to the Restaurant Reservations and New Orleans 2017 booths on South, Level 2.5.

Loop Interior Architectural Walking Tour

Step inside magnificent lobbies, a church in a skyscraper, and the underground Pedway on this tour. This is a great choice for both first-time visitors and those already familiar with Chicago. **When:** Friday, 3:00-5:00 p.m.; Saturday, 11:00 a.m.-1:00 p.m., 1:30-3:30 p.m.; and Sunday, 1:30-3:30 p.m. **Where:** Chase Tower, 10 South Dearborn Street.

Best Architectural Walking Tour Since Sliced Bread

Learn about architectural styles through their connections with technology and culture. Highlights include Chicago's underground layers, the Michigan Avenue Bridge, the gold-topped Carbide & Carbon Building, Mies van der Rohe's Illinois Center, the Diamond Building, and Jeanne Gang's Aqua Tower. **When:** Saturday, 10:00-11:30 a.m. **Where:** 343 N. Michigan Ave.

Jazz, Blues, and Beyond

Connect with the Windy City's jazz and blues culture through its historic sites on this daytime bus tour. This memorable experience includes a blues harmonica lesson from a musician. **When:** Sunday, 11:00 a.m.-1:30 p.m. **Where:** South Building, McCormick Place, Gate 3.

Hyde Park and Frank Lloyd Wright Bus Tour With Walk

Visit Frank Lloyd Wright's acclaimed Robie House as well as some of his lesser-known homes. You'll also view the landscaped grounds of the 1893 World's Columbian Exposition and roam the ivy-covered campus of the University of Chicago. **When:** Monday, 9:15 a.m.-12:15 p.m. **Where:** South Building, McCormick Place, Gate 3.

Chicago Highlights Detour 101

Discover Chicago's bold character through its beautiful landmarks and world-famous architecture. This tour includes a visit to the Skydeck on the 103rd floor of the Willis Tower. **When:** Friday, 11:00 a.m.-3:00 p.m. **Where:** South Building, McCormick Place, Gate 3.

Chicago River and Navy Pier 5K Running Tour

Go for a leisurely 5K running tour, which starts and ends at the world-famous Cloud Gate sculpture, popularly known as the Bean. Your tour guide will lead you by Chicago's celebrated landmarks and the beauty of Lake Michigan. **When:** Sunday, 9:30-11:00 a.m. **Where:** Bean sculpture in Millennium Park.

Food, Flowers and Shopping in Lincoln Park Bus Excursion

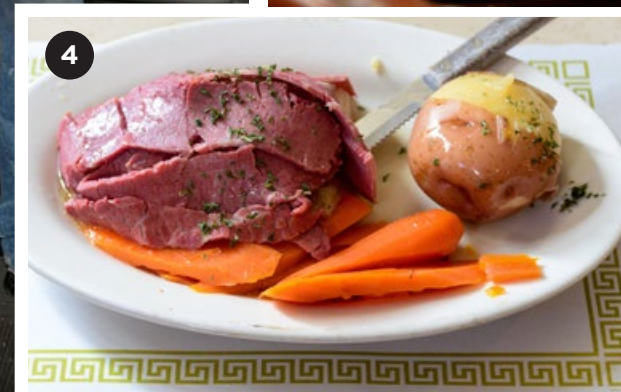
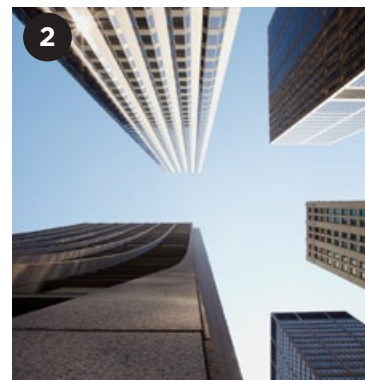
Check out the stunning flora of the historic Lincoln Park Conservatory. The tour also visits historic sites in the area, as well as the local farmers' market and boutique shops, which you can peruse independently. **When:** Saturday, 10:30 a.m.-2:30 p.m. **Where:** South Building, McCormick Place, Gate 3.

Museum of Science and Industry With Bus Transport

Visit one of the world's largest science museums in the south side of the city. You'll interact with hands-on exhibits, like the baby chick hatchery, tour the "Yesterday's Main Street" with Chicago Detours Executive Director, and set foot on a German WWII submarine. **When:** Tuesday, 9:15 a.m.-12:45 p.m. **Where:** South Building, McCormick Place, Gate 3.

1893 World's Fair Tour With Food and Bars

Dive into one of the best-known events in Chicago's history on this walking tour. You'll visit downtown buildings constructed for fairgoers, ride one of the last elevators downtown with a human operator, and taste food connected to stories from the 1893 World's Fair.



LEARN ABOUT CHICAGO—FROM ARCHITECTURE AND HISTORY TO MUSIC AND FOOD. (1) Learn to play blues harmonica from a musician during the daytime or evening jazz and blues bus tours. (2) Look at architecture from new perspectives, both literally and figuratively, on several of the Chicago Detours tours for AAO 2016. (3) Discover why the 1893 World's Fair is so fascinating on a downtown walking tour that ends with a cocktail inside a 19th-century former private club. (4) Sample local fare like Irish corned beef and cabbage on an off-the-beaten path historic pub crawl in Chicago's oldest neighborhood.

When: Friday, 1:00-4:00 p.m.; Saturday, 4:30-7:30 p.m.; Tuesday, 9:15 a.m.-12:45 p.m. **Where:** Friday and Saturday at the Congress Plaza Hotel bar at 520 S. Michigan Ave., Tuesday at South Building, McCormick Place, Gate 3.

Downtown Interiors 5K Walk

Pass through beautiful architectural spaces while getting exercise on this walk. This creative route takes you inside connecting corridors, lobbies, and the Pedway passages inside downtown buildings. **When:** Monday, 1:30-3:30 p.m. **Where:** Southeast entrance of the Thompson Center, 100 W. Randolph.

Historic Chicago Bar Walking Tour

Drink, eat, and learn about Chicago's entertainment history including Prohibition, jazz, theater, vices, and social clubs. Experience intriguing architecture on this pub crawl with an educational twist. You'll check out Tribune Tower, the well-known Billy Goat Tavern, and a famous 19th-century mansion. **When:** Friday-Tuesday, 5:45-8:15 p.m. **Where:** Argo Tea inside Tribune Tower, 435 N. Michigan Ave.

Big Shoulders Historic Bar and Food Bus Tour

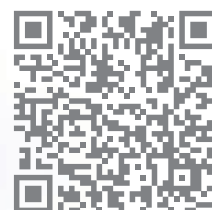
Connect with Chicago's working class roots in the city's oldest neighborhood. You'll have drinks at historic bars, sample the distinctive local fare, and view the former Stock Yards, once the largest industrial complex in the world. **When:** Sunday, 5:30-8:30 p.m. **Where:** South Building, McCormick Place, Gate 3.

Jazz With Live Blues Evening Bus Tour

Sip a drink in the speakeasy ambience of Chicago's oldest jazz club, see a live band at a historic blues club, and even have a blues harmonica lesson. All guests receive a harmonica as a gift. **When:** Monday, 7:30-10:30 p.m. **Where:** South Building, McCormick Place, Gate 3.

Brewery With BBQ Dinner Bus Tour

Head to Chicago's northwest side for a casual barbeque dinner and a tour of the 60-barrel brewhouse of Chicago's famous Revolution Brewing, the largest craft brewery in Illinois. **When:** Friday, 6:30-10:00 p.m. **Where:** South Building, McCormick Place, Gate 3.



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Xiidra improved patient-reported symptoms of eye dryness and improved signs of inferior corneal staining. So help your patients get to know Xiidra.

Check it out at Xiidra-ECP.com

Four randomized, double-masked, 12-week trials evaluated the efficacy and safety of Xiidra versus vehicle as assessed by improvement in the signs (measured by Inferior Corneal Staining Score) and/or symptoms (measured by Eye Dryness Score) of Dry Eye Disease (N=2133).

The safety of lifitegrast was evaluated in 5 clinical studies. 1401 patients received at least one dose of lifitegrast (1287 of which received Xiidra). The most common adverse reactions (5-25%) were instillation site irritation, dysgeusia, and reduced visual acuity.

MEET YOU

The only prescription eye drop FDA-approved to treat both the signs and symptoms of Dry Eye Disease

Indication

Xiidra™ (lifitegrast ophthalmic solution) 5% is indicated for the treatment of signs and symptoms of dry eye disease (DED).

Important Safety Information

In clinical trials, the most common adverse reactions reported in 5-25% of patients were instillation site irritation, dysgeusia and reduced visual acuity.

Other adverse reactions reported in 1% to 5% of the patients were blurred vision, conjunctival hyperemia, eye irritation, headache, increased lacrimation, eye discharge, eye discomfort, eye pruritus and sinusitis.

To avoid the potential for eye injury or contamination of the solution, patients should not touch the tip of the single-use container to their eye or to any surface.

Contact lenses should be removed prior to the administration of Xiidra and may be reinserted 15 minutes following administration.

Safety and efficacy in pediatric patients below the age of 17 years have not been established.

For additional safety information, see accompanying Brief Summary of Safety Information on the following page and Full Prescribing Information on Xiidra-ECP.com.



BRIEF SUMMARY:

Consult the Full Prescribing Information for complete product information.

INDICATIONS AND USAGE

Xiidra™ (lifitegrast ophthalmic solution) 5% is indicated for the treatment of the signs and symptoms of dry eye disease (DED).

DOSAGE AND ADMINISTRATION

Instill one drop of Xiidra twice daily (approximately 12 hours apart) into each eye using a single use container. Discard the single use container immediately after using in each eye. Contact lenses should be removed prior to the administration of Xiidra and may be reinserted 15 minutes following administration.

ADVERSE REACTIONS

Clinical Trials Experience

Because clinical studies are conducted under widely varying conditions, adverse reaction rates observed in clinical studies of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice. In five clinical studies of dry eye disease conducted with lifitegrast ophthalmic solution, 1401 patients received at least 1 dose of lifitegrast (1287 of which received lifitegrast 5%). The majority of patients (84%) had ≤ 3 months of treatment exposure. 170 patients were exposed to lifitegrast for approximately 12 months. The majority of the treated patients were female (77%). The most common adverse reactions reported in 5-25 % of patients were instillation site irritation, dysgeusia and reduced visual acuity. Other adverse reactions reported in 1% to 5% of the patients were blurred vision, conjunctival hyperemia, eye irritation, headache, increased lacrimation, eye discharge, eye discomfort, eye pruritus and sinusitis.

USE IN SPECIFIC POPULATIONS

Pregnancy

There are no available data on Xiidra use in pregnant women to inform any drug associated risks. Intravenous (IV) administration of lifitegrast to pregnant rats, from pre-mating through gestation day 17, did not produce teratogenicity at clinically relevant systemic exposures. Intravenous administration of lifitegrast to pregnant rabbits during organogenesis produced an increased incidence of omphalocele at the lowest dose tested, 3 mg/kg/day (400-fold the human plasma exposure at the recommended human ophthalmic dose [RHOD], based on the area under the curve [AUC] level). Since human systemic exposure to lifitegrast following ocular administration of Xiidra at the RHOD is low, the applicability of animal findings to the risk of Xiidra use in humans during pregnancy is unclear.

Animal Data

Lifitegrast administered daily by intravenous (IV) injection to rats, from pre-mating through gestation day 17, caused an increase in mean preimplantation loss and an increased incidence of several minor skeletal anomalies at 30 mg /kg /day, representing 5,400-fold the human plasma exposure at the RHOD of Xiidra, based on AUC. No teratogenicity was observed in the rat at 10 mg /kg /day (460-fold the human plasma exposure at the RHOD, based on AUC). In the rabbit, an increased incidence of omphalocele was observed at the lowest dose tested, 3 mg /kg /day (400-fold the human plasma exposure at the RHOD, based on AUC), when administered by IV injection daily from gestation days 7 through 19. A fetal No Observed Adverse Effect Level (NOAEL) was not identified in the rabbit.

Lactation

There are no data on the presence of lifitegrast in human milk, the effects on the breastfed infant, or the effects on milk production. However, systemic exposure to lifitegrast from ocular administration is low. The developmental and health benefits of breastfeeding should be considered, along with the mother's clinical need for Xiidra and any potential adverse effects on the breastfed child from Xiidra.

Pediatric Use

Safety and efficacy in pediatric patients below the age of 17 years have not been established.

Geriatric Use

No overall differences in safety or effectiveness have been observed between elderly and younger adult patients.

NONCLINICAL TOXICOLOGY

Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenesis: Animal studies have not been conducted to determine the carcinogenic potential of lifitegrast.

Mutagenesis: Lifitegrast was not mutagenic in the *in vitro* Ames assay. Lifitegrast was not clastogenic in the *in vivo* mouse micronucleus assay. In an *in vitro* chromosomal aberration assay using mammalian cells (Chinese hamster ovary cells), lifitegrast was positive at the highest concentration tested, without metabolic activation.

Impairment of fertility: Lifitegrast administered at intravenous (IV) doses of up to 30 mg/kg/day (5400-fold the human plasma exposure at the recommended human ophthalmic dose (RHOD) of lifitegrast ophthalmic solution, 5%) had no effect on fertility and reproductive performance in male and female treated rats.



Manufactured for: Shire US Inc., 300 Shire Way, Lexington, MA 02421.

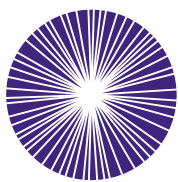
For more information, go to www.Xiidra.com or call 1-800-828-2088.

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US Patents: 8367701; 9353088; 7314938; 7745460; 7790743; 7928122; 9216174; 8168655; 8084047; 8592450; 9085553 and pending patent applications.

Last Modified: 07/2016 S13681



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EyeNet Corporate Lunches

EyeNet® Magazine helps you make the most of your learning time at AAO 2016 by bringing you free corporate educational program lunches* onsite at McCormick Place.

These conveniently located industry-developed lunches ensure that you maximize your education in Chicago during the break between sessions.

Room E353b, Lakeside

McCormick Place

Check-in and Lunch Pickup

12:15-12:30 p.m. Lunches are provided on a first-come basis.

Program

12:30-1:30 p.m.

Programs

Saturday, Oct. 15 Diabetic Eye Disease: Clinical Challenges and Practical Tips for Multidisciplinary Disease Management

Speakers: Mandeep Brar, MD (endocrinologist), W. Lloyd Clark, MD, John W. Kitchens, MD

Supported by Regeneron Pharmaceuticals

Sunday, Oct. 16 A Novel Therapy for DME Patients Requiring Persistent Treatment

Speakers: Nathan M. Radcliffe, MD, Christopher D. Riemann, MD, Veeral S. Sheth, MD, MBA, FACS

Supported by Alimera Sciences

Monday, Oct. 17 Cataract Surgery: Life Is Beautiful When the Pupil Behaves

Speakers: Johnny L. Gayton, MD, Richard L. Lindstrom, MD, Robert H. Osher, MD, Keith A. Walter, MD, Robert J. Weinstock, MD, Elizabeth Yeu, MD

Supported by Omeros Corporation

Check aao.org/eyenet/corporate-lunches for updated program information.

* These programs are non-CME and are developed independently by industry. They are not affiliated with the official program of AAO 2016 or Subspecialty Day. By attending a lunch, you may be subject to reporting under the Physician Payment Sunshine Act.



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