41st Annual NANOS MEETING PROGRAM

February 21-26, 2015
Hotel del Coronado | San Diego, CA
### 41st Annual NANOS Meeting Schedule-at-a-Glance

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>SATURDAY, FEBRUARY 21</td>
<td>10:00 a.m. – 4:00 p.m.</td>
<td>San Diego Zoo Safari Park Excursion</td>
<td>Depart from Hotel del Coronado Lobby</td>
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<tr>
<td></td>
<td>2:00 p.m. – 8:00 p.m.</td>
<td>Registration</td>
<td>Ballroom Foyer</td>
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<td></td>
<td>6:00 p.m. – 7:30 p.m.</td>
<td>Opening Reception (all are welcome)</td>
<td>Sun Deck</td>
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<tr>
<td>SUNDAY, FEBRUARY 22</td>
<td>6:00 a.m. – 6:45 a.m.</td>
<td>Yoga Class</td>
<td>Spreckels Complex</td>
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<td></td>
<td>6:30 a.m. – 5:30 p.m.</td>
<td>Registration</td>
<td>Ballroom Foyer</td>
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<tr>
<td></td>
<td>6:30 a.m. – 7:45 a.m.</td>
<td>Breakfast</td>
<td>Crown Room</td>
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<tr>
<td></td>
<td>6:30 a.m. – 3:30 p.m.</td>
<td>Exhibits</td>
<td>Crown Room</td>
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<tr>
<td></td>
<td>7:45 a.m. – 5:00 p.m.</td>
<td>FRANK B. WALSH SESSION [7.25 CME]</td>
<td>Ballroom</td>
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<td></td>
<td>11:50 a.m. – 1:10 p.m.</td>
<td>Lunch (Included)</td>
<td>Crown Room</td>
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<tr>
<td></td>
<td>12:15 p.m. – 1:15 p.m.</td>
<td>Carrier Relations Committee Meeting</td>
<td>Garden Room</td>
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<td></td>
<td>12:15 p.m. – 1:15 p.m.</td>
<td>Membership Retention and Recruitment Meeting</td>
<td>Executive Room</td>
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<td></td>
<td>12:15 p.m. – 1:15 p.m.</td>
<td>Patient Advocacy Groups Liaison Committee Meeting</td>
<td>Tudor Room</td>
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<td></td>
<td>5:15 p.m. – 5:45 p.m.</td>
<td>Frank B. Walsh Committee Meeting</td>
<td>Executive Room</td>
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<td>5:15 p.m. – 5:45 p.m.</td>
<td>Fellowship Director’s Meeting</td>
<td>Hanover Room</td>
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<td></td>
<td>5:45 p.m. – 6:15 p.m.</td>
<td>Fellowship Committee Meeting</td>
<td>Hanover Room</td>
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<tr>
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<td>5:30 p.m. – 6:30 p.m.</td>
<td>Members-in-Training Program and Reception</td>
<td>Garden Room</td>
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<tr>
<td></td>
<td>Evening</td>
<td>Diner on your own</td>
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<tr>
<td>MONDAY, FEBRUARY 23</td>
<td>6:00 a.m. – 6:45 a.m.</td>
<td>Yoga Class</td>
<td>Spreckels Complex</td>
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<tr>
<td></td>
<td>6:30 a.m. – 12:30 p.m.</td>
<td>Registration</td>
<td>Ballroom Foyer</td>
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<tr>
<td></td>
<td>6:30 a.m. – 7:30 a.m.</td>
<td>Breakfast</td>
<td>Crown Room</td>
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<tr>
<td></td>
<td>6:30 a.m. – 12:15 p.m.</td>
<td>Exhibits</td>
<td>Crown Room</td>
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<td></td>
<td>7:00 a.m. – 7:30 a.m.</td>
<td>NOVEL Editorial Board/Curriculum Committee Meeting</td>
<td>Garden Room</td>
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<td>7:00 a.m. – 7:30 a.m.</td>
<td>Finance Committee Meeting</td>
<td>Executive Room</td>
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<td>7:30 a.m. – 9:30 a.m.</td>
<td>Journal Club [2.0 CME]</td>
<td>Ballroom</td>
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<td></td>
<td>9:30 a.m. – 10:00 a.m.</td>
<td>Coffee Break</td>
<td>Crown Room</td>
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<td></td>
<td>10:00 a.m. – 12:00 p.m.</td>
<td>Hot Topics: To Boldly Go Where No Neuro-Ophthalmologist has Gone</td>
<td>Ballroom</td>
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<td></td>
<td>12:15 p.m. – 12:45 p.m.</td>
<td>Archives Committee Meeting</td>
<td>Executive Room</td>
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<td>12:15 p.m. – 1:30 p.m.</td>
<td>Women in Neuro-Ophthalmology (WIN) Meeting</td>
<td>Coronet Room</td>
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<td></td>
<td>1:30 p.m. – 3:30 p.m.</td>
<td>Optional Symposium; International Neuro-Ophthalmology [2 CME]</td>
<td>Ballroom</td>
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<td>2:00 p.m. – 4:30 p.m.</td>
<td>Consortium of Pediatric Neuro-Ophthalmologists Meeting (CPNO)</td>
<td>Garden Room</td>
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<tr>
<td></td>
<td>2:30 p.m. – 4:30 p.m.</td>
<td>Optional Symposium; Hands on Workshop Utilizing the Prism Cover Test and Prism Therapeutics for the Diplopia Patient [2 CME]</td>
<td>Carousel 3</td>
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<tr>
<td></td>
<td>3:00 p.m. – 5:00 p.m.</td>
<td>Young Neuro-Ophthalmologist (YONO) Forum</td>
<td>Hanover Room</td>
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<td></td>
<td>5:00 p.m. – 7:00 p.m.</td>
<td>SCIENTIFIC PLATFORM PRESENTATIONS: SESSION I [2 CME]</td>
<td>Ballroom</td>
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<tr>
<td>TUESDAY, FEBRUARY 24</td>
<td>6:00 a.m. – 6:45 a.m.</td>
<td>Yoga Class</td>
<td>Spreckels Complex</td>
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<td></td>
<td>6:30 a.m. – 12:30 p.m.</td>
<td>Registration</td>
<td>Ballroom Foyer</td>
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<td></td>
<td>6:30 a.m. – 7:30 a.m.</td>
<td>Breakfast</td>
<td>Crown Room</td>
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<tr>
<td></td>
<td>6:30 a.m. – 7:30 a.m.</td>
<td>JNO Editorial Board Meeting</td>
<td>Hanover Room</td>
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<td></td>
<td>6:30 a.m. – 12:15 p.m.</td>
<td>Exhibits</td>
<td>Crown Room</td>
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<td>7:00 a.m. – 7:30 a.m.</td>
<td>YONO Committee Meeting</td>
<td>Garden Room</td>
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<td>7:00 a.m. – 7:30 a.m.</td>
<td>CME Committee Meeting</td>
<td>Executive Room</td>
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<td></td>
<td>7:30 a.m. – 11:00 a.m.</td>
<td>SCIENTIFIC PLATFORM PRESENTATIONS: SESSION II [7.75 CME]</td>
<td>Ballroom</td>
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<td>9:15 a.m. – 9:30 a.m.</td>
<td>Update: The Journal of Neuro-Ophthalmology</td>
<td>Ballroom</td>
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<td>9:30 a.m. – 10:00 a.m.</td>
<td>Coffee Break</td>
<td>Crown Room</td>
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<td></td>
<td>12:15 p.m. – 4:15 p.m.</td>
<td>The USS Midway Tour</td>
<td>Depart from Orange Avenue Lawn</td>
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<td></td>
<td>12:15 p.m. – 4:15 p.m.</td>
<td>San Diego Zoo Excursion</td>
<td>Depart from Orange Avenue Lawn</td>
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<td></td>
<td>12:15 p.m. – 5:15 p.m.</td>
<td>Balboa Park/Museum Excursion</td>
<td>Depart from Orange Avenue Lawn</td>
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<td></td>
<td>12:15 p.m. – 5:00 p.m.</td>
<td>NANOS Board Meeting</td>
<td>Windsor Room</td>
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<td>6:00 p.m. – 9:30 p.m.</td>
<td>Poster Session</td>
<td>Grande Ballroom</td>
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<tr>
<td>WEDNESDAY, FEBRUARY 25</td>
<td>6:30 a.m. – 12:30 p.m.</td>
<td>Registration</td>
<td>Ballroom Foyer</td>
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<tr>
<td></td>
<td>6:30 a.m. – 7:30 a.m.</td>
<td>Breakfast</td>
<td>Crown Room</td>
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<tr>
<td></td>
<td>7:00 a.m. – 7:30 a.m.</td>
<td>Annual NANOS Business Meeting (all encouraged to attend)</td>
<td>Ballroom</td>
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<td></td>
<td>7:30 a.m. – 9:30 a.m.</td>
<td>Sizzling Hot Topic: The IHIT: What Have We Learned? [2 CME]</td>
<td>Ballroom</td>
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<td>9:30 a.m. – 9:45 a.m.</td>
<td>Coffee Break</td>
<td>Crown Room</td>
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<tr>
<td></td>
<td>9:45 a.m. – 11:00 a.m.</td>
<td>Mechanical Causes of Strabismus [1.25 CME]</td>
<td>Ballroom</td>
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<td>11:00 a.m. – 11:10 a.m.</td>
<td>NOVEL Update</td>
<td>Ballroom</td>
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<td>11:10 a.m. – 12:00 p.m.</td>
<td>Jacobson Lecture: Neuroendocrine Tumors in Neuro-Ophthalmology [1 CME]</td>
<td>Ballroom</td>
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<td>12:15 p.m. – 1:30 p.m.</td>
<td>Research Committee Meeting Luncheon</td>
<td>Garden Room</td>
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<td>1:30 p.m. – 3:30 p.m.</td>
<td>Optional Symposium; IHIT - Weight Loss and Management [2 CME]</td>
<td>Ballroom</td>
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<tr>
<td></td>
<td>3:30 p.m. – 5:30 p.m.</td>
<td>Optional Symposium; Eye Movement and Vestibular Skills Transfer Session [3 CME]</td>
<td>Carousel Room</td>
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<td>4:30 p.m. – 5:30 p.m.</td>
<td>Abstract Committee Meeting</td>
<td>Garden Room</td>
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<td>4:30 p.m. – 5:30 p.m.</td>
<td>International Relations Committee Meeting</td>
<td>Tudor Room</td>
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<td>4:30 p.m. – 5:30 p.m.</td>
<td>Productivity/Compensation Committee Meeting</td>
<td>Hanover Room</td>
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<td>5:30 p.m. – 6:30 p.m.</td>
<td>Bylaws Committee</td>
<td>Garden Room</td>
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<td>5:30 p.m. – 6:30 p.m.</td>
<td>Patient Information Committee Meeting</td>
<td>Tudor Room</td>
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<td>5:30 p.m. – 6:30 p.m.</td>
<td>Publications Committee Meeting</td>
<td>Hanover Room</td>
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<td></td>
<td>6:45 p.m. – 10:00 p.m.</td>
<td>Annual NANOS Reception and Banquet</td>
<td>Windsor Lawn</td>
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<tr>
<td>THURSDAY, FEBRUARY 26</td>
<td>6:30 a.m. – 12:30 p.m.</td>
<td>Registration</td>
<td>Ballroom Foyer</td>
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<tr>
<td></td>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Breakfast</td>
<td>Crown Room</td>
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<td>8:05 a.m. – 12:32 p.m.</td>
<td>Glaucoma: The Other Optic Neuropathy [4 CME]</td>
<td>Ballroom</td>
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<td></td>
<td>9:44 a.m. – 10:14 a.m.</td>
<td>Break</td>
<td>Crown Room</td>
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</table>
Dear Conference Registrants:

Welcome to the 41st Annual NANOS Meeting at the Hotel del Coronado in San Diego, California!

Please join us for the Opening Reception on Saturday, February 21, from 6:00 – 7:30 pm, on the Hotel del Coronado’s Sun Deck. The reception will feature complimentary cocktails and hors d’oeuvres.

The 2015 NANOS Syllabus (both USB and print format based on what you requested at the time of registration) will be distributed immediately following the Walsh Session on Sunday.

Breakfast for registrants only will be provided daily.

The CME meeting evaluation forms will be online only again this year. Further instructions are located on page 12. Please bring your computer if you want to complete the evaluation during the sessions. Complimentary Internet will be provided.

We hit record poster submissions again this year. Therefore, if you are a poster presenter, we encourage you to put up your poster starting at 12:00 pm on Sunday, February 22 in the Grande Ballroom. If you can’t be at the meeting that early, please ask someone to put up the poster for you. We want to maximize the viewing! The poster session will take place on Tuesday, February 24 from 6:00 – 9:30 pm. The event is complimentary for attendees but guests must purchase tickets. These will be available from the NANOS registration desk for $50 per person.

Be sure to attend the Business Meeting on Wednesday, February 25, at 7:00 am in the Ballroom. We will be reviewing society business and voting on new members; your input is needed.

Join us for the Annual Reception and Banquet on Wednesday, February 25, which will be held on the Hotel del Coronado Windsor Lawn from 6:45 – 10:00 pm. Guests and children are welcome. This event is complimentary for attendees, but guest/spouse tickets are $100.

Finally, NANOS is partnering with the American Glaucoma Society (AGS) for a joint session on Thursday, February 26. NANOS will be hosting the morning session and AGS will be hosting the afternoon session. The morning session will focus on Glaucoma: Tearing Down the Wall. Some of the key features of the afternoon session are interactive sessions on current and hot topics, and multiple poster sessions, all with relevance to neuro-ophthalmologists. The registration for the AGS afternoon session is FREE for NANOS Members. We strongly encourage all NANOS members to consider attending all day!

I hope you enjoy the NANOS meeting and your stay at the Hotel del Coronado!

Nancy J. Newman, MD
NANOS President
Saturday, February 21

10:00 a.m. – 4:00 p.m.  San Diego Zoo Safari Park Excursion  Depart from Hotel del Coronado Lobby
2:00 p.m. – 8:00 p.m.    Registration
6:00 p.m. – 7:30 p.m.    Opening Reception (all are welcome)

Sunday, February 22

6:00 a.m. – 6:45 a.m.    Yoga Class  Spreckels Complex
6:30 a.m. – 5:30 p.m.    Registration  Ballroom Foyer
6:30 a.m. – 7:45 a.m.    Breakfast
6:30 a.m. – 3:30 p.m.    Exhibits  Crown Room
7:45 a.m. – 5:00 p.m.    FRANK B. WALSH SESSION [7.25 CME]  Ballroom
Co-Chairs: Benjamin J. Frishberg, MD & Howard R. Krauss, MD
Neuroradiologist: John Rhee, MD
Neuropathologist: Yuki Takasumi, MD
Additional Experts:
Neurosurgeon: Daniel Kelly, MD
Otorhinolaryngology/Head & Neck Surgeon: Chester Griffiths, MD, FACS

This session is designed to present a wide variety of Neuro-ophthalmic cases to an audience of physicians with varying neuroscience backgrounds who have a common intellectual interest in the broad range of conditions that impact the human visual pathways and ocular motor systems.

The format is a clinicopathologic conference. Clinical cases will be presented by Neuro-Ophthalmologists with comments by a neuroradiologist, neuropathologist and other selected experts. Necropsy, surgical pathology, and neuroimaging will help illuminate clinical points. Cases will be discussed from clinical, anatomic, radiologic and pathologic aspects with emphasis on diagnosis, pathophysiology and management. Audience participation is encouraged.

Upon completion of this course, participants should be able to: 1) Recognize the varied presentations of Neuro-Ophthalmic disease; 2) Correlate the anatomic localization and histopathologic appearance with the clinical presentations; 3) Effectively use radiologic procedures in diagnosis; 4) Recognize both the value and limitations of neuropathology; and 5) Discuss newly described diseases and their connection to Neuro-Ophthalmology.

11:50 a.m. – 1:10 p.m.  Lunch (Included)  Crown Room
12:15 p.m. – 1:15 p.m.  Carrier Relations Committee Meeting  Garden Room
12:15 p.m. – 1:15 p.m.  Membership Retention and Recruitment Meeting  Executive Room
12:15 p.m. – 1:15 p.m.  Patient Advocacy Groups Liaison Committee Meeting  Tudor Room
5:15 p.m. – 5:45 p.m.    Frank B. Walsh Committee Meeting  Executive Room
5:15 p.m. – 5:45 p.m.    Fellowship Director’s Meeting  Hanover Room
5:45 p.m. – 6:15 p.m.    Fellowship Committee Meeting  Hanover Room
5:30 p.m. – 6:30 p.m.    Members-in-Training Program and Reception  Garden Room
(All Students, Residents and Fellows are encouraged to attend)

Evening  Dinner on your own
Clinicians are obliged to keep themselves up to date with what is happening in their various fields of practice. Granted the enormous progress being made in all areas of medicine, keeping abreast of relevant clinical trials and other new developments can be very challenging. This symposium is designed to assist practicing Neuro-Ophthalmologists by providing reviews of recent developments in four different areas: new therapies for multiple sclerosis, the relationship between phosphodiesterase-5 (PDE-5) inhibitors and non-arteritic anterior ischemic optic neuropathy (NAION), the neuro-ophthalmological relevance of bariatric surgery, and obstructive sleep apnea (OSA). Each expert will present a critical review followed by a summary of take-home points, leaving time available for audience comments, questions and discussion.

Upon completion of this course, attendees will have the evidence base to allow them to define: 1) The roles and relative positioning of the many new agents which have appeared (and some which are soon to appear) to treat multiple sclerosis; 2) The relationship between PDE-5 inhibitors and NAION; 3) Who should be referred for bariatric surgery and what complications may arise; and 4) The potential relevance of obstructive sleep apnea to Neuro-Ophthalmic conditions including idiopathic intracranial hypertension and NAION, how to detect OSA, and what to do if it is suspected.

The course is designed to address the following desirable physician attributes: Medical knowledge, practice-based learning and improvement, and patient care.

7:30 a.m. – 7:50 a.m.  
**New Therapies for Multiple Sclerosis, Beyond the ABCs**, Ari J. Green, MD  
Q & A

7:50 a.m. – 8:00 a.m.  
**The Relationship Between PDE-5 Inhibitors and NAION**, Howard D. Pomeranz, MD, PhD  
Q & A

8:00 a.m. – 8:20 a.m.  
**Bariatric Surgery and the Neuro-Ophthalmologist**, Heather Moss, MD, PhD  
Q & A

8:20 a.m. – 8:30 a.m.  
**Obstructive Sleep Apnea and Neuro-Ophthalmic Conditions**, Clare Fraser, MD  
Q & A

9:00 a.m. – 9:20 a.m.  
**Journal Club [2.0 CME]**  
*Moderators: Rudrani Banik, MD & Christian Lueck, PhD, FRACP, FRCP(UK)*

9:30 a.m. – 10:00 a.m.  
Coffee Break  
Crown Room
10:00 a.m. – 12:00 p.m.  Hot Topics: To Boldly Go Where No Neuro-Ophthalmologist has Gone Before [2 CME]  Ballroom
Moderators: Marc Dinkin, MD & Rod Foroozan, MD

With every new observation and new technology comes the question: Should Neuro-Ophthalmologists change their understanding of a disease or their practice patterns or stick with the tried and true teachings of old? The purpose of this Hot Topics session is to address some of the more controversial questions of Neuro-Ophthalmology practice: Is there really a distinct syndrome of chronic relapsing inflammatory optic neuropathy? Is ocular fundus photography the wave of the future or are Neuro-Ophthalmologists better off teaching emergency room physicians old-fashioned direct ophthalmoscopy? Can Neuro-Ophthalmologists use the results of pharmacologic testing and examination findings to focus their imaging protocol for patients with Horner syndrome or should they maximize sensitivity with a “kitchen sink” approach? And finally, does the discovery of optic disc edema in astronauts undergoing long-duration space flight reflect a localized increase in retrolaminar pressure due to microgravity, and if so, can this knowledge inform the management of earth-bound patients with papilledema?

Upon completion of this course, participants should be able to: 1) Approach the diagnosis and treatment of the clinical entity of chronic relapsing inflammatory optic neuropathy (CRION); 2) Describe the data supporting the use of ocular fundus photography in the diagnosis and management of neuro-ophtalmological disorders in the emergency room and other clinical settings; 3) Outline an approach to imaging of patients with Horner syndrome; and 4) Recognize the changes affecting the optic nerve in the settings of high altitude and long-duration space flight.

This course is designed to procure the following desirable physician attributes: Employ evidence-based practice, work in interdisciplinary teams, and medical knowledge.

10:00 a.m. – 10:20 a.m. Autoimmune Optic Neuropathies (Sorting it All Out), Leonard A. Levin, MD, PhD
10:20 a.m. – 10:30 a.m. Q&A
10:30 a.m. – 10:50 a.m. Non-Mydriatic Fundus Photography, Beau Bruce, MD, PhD
10:50 a.m. – 11:00 a.m. Q&A
11:00 a.m. – 11:20 a.m. Imaging of Horner Syndrome, Grant Liu, MD
11:20 a.m. – 11:30 a.m. Q&A
11:30 a.m. – 12:00 p.m. Neuro-Ophthalmology of Outer Space, Andrew G. Lee, MD

12:15 p.m. – 12:45 p.m. Archives Committee Meeting  Executive Room

12:15 p.m. – 1:30 p.m. Women in Neuro-Ophthalmology (WIN) Meeting  Coronet Room
An optional lunch selection will be available for purchase. All are welcome to attend even without the purchase of a lunch.

1:30 p.m. – 3:30 p.m. Optional Symposium: International Neuro-Ophthalmology [2 CME]  Ballroom
Moderators: Christian Lueck, PhD, FRACP, FRCP(UK) and Klara Landau, MD, FEBO

In recent years, about 20% of the attendees at NANOS meetings live and practise in parts of the world outside North America. “International” neuro-ophthalmology differs from “North American” neuro-ophthalmology in several ways. For example, the patterns and prevalence of the various diseases vary with geographic location, and there is enormous variability in local facilities for clinical service delivery and research.
This symposium is designed to showcase international aspects of neuro-ophthalmology. It will focus on several different areas including the different profiles of neuro-ophthalmic disease in other parts of the world and the variable levels of service provision and education, particularly in the developing world. The symposium will provide the opportunity to foster international collaboration and increase the involvement of NANOS members at an international level.

Upon completion of this course, participants should be able to: 1) Recognize differences in prevalence of neuro-ophthalmic diseases between different countries; 2) Describe differences in service provision in different regions of the world; and 3) Determine how to foster international neuro-ophthalmologic collaboration.

1:30 p.m. – 2:00 p.m.  
**Neuro-Ophthalmology in South East Asia**, John Crompton, MBBS, FRANZCO, FRACS

2:00 p.m. – 2:12 p.m.  
**Neuro-Ophthalmology in Europe (France)**, Caroline Tilikete, MD, PhD

2:12 p.m. – 2:24 p.m.  
**Neuro-Ophthalmology in Africa (East Africa)**, Mike Burdon MB, BS, FRCOPH, MRCP

2:24 p.m. – 2:36 p.m.  
**Neuro-Ophthalmology in the Middle East (Israel)**, Ruth Huna-Baron, MD

2:36 p.m. – 2:48 p.m.  
**Neuro-Ophthalmology in South America (Brazil)**, Mário Monteiro MD, PhD

2:48 p.m. – 3:00 p.m.  
**Neuro-Ophthalmology in Asia (Japan)**, Satoshi Kashii, MD, PhD

3:00 p.m. – 3:10 p.m.  
The History of the International Neuro-Ophthalmology Society, Klara Landau, MD

3:10 p.m. – 3:30 p.m.  
Q & A

2:00 p.m. – 4:30 p.m.  
**Consortium of Pediatric Neuro-Ophthalmologists Meeting (CPNO)**  
Facilitator: Grant Liu, MD

The Consortium of Pediatric Neuro-Ophthalmologists (CPNO) was created to promote and advance pediatric neuro-ophthalmology by performing multi-center studies, providing a forum for research and clinical topics, and creating a sense of community to those specializing in pediatric neuro-ophthalmology. The meeting is open to anyone interested in children with neuro-ophthalmic problems. During this session multi-center research studies will be discussed, and cases relevant to these projects will be presented.

2:30 p.m. – 2:35 p.m.  
**Introduction of the Faculty and Review of Symposia Learning Objectives**, Mitchell B. Strominger, MD

2:35 p.m. – 2:45 p.m.  
**The Prism Cover Test**, Shelley Klein, CO

2:45 p.m. – 2:55 p.m.  
**Prescribing incorporated or Fresnel Prisms**, Mitchell B. Strominger, MD
Monday, February 23 (continued)

2:55 p.m. – 3:00 p.m.  Brief Case Presentations: Divergence Insufficiency, Convergence Insufficiency, 4th Nerve Palsy, 6th Nerve Palsy, Thyroid Orbitopathy, and Post Cataract Extraction Vertical Diplopia, Mitchell B. Strominger, MD

3:00 p.m. – 4:30 p.m.  Break-Out Stations with Hands-On Case Demonstrations, Mitchell B. Strominger, MD, Shelley Klein, CO, Paul H. Phillips, MD, David Granet, MD, Shira L. Robbins, MD, and Erika Castro, CO

3:00 p.m. – 5:00 p.m.  Young Neuro-Ophthalmologist (YONO) Forum  Hanover Room

While all are welcome to attend, this forum is specifically designed for residents, fellows and Neuro-Ophthalmologists in the early years of their career. The YONO Committee has incorporated last year’s positive, constructive feedback and present a re-vamped format. The revised forum will have multiple rotating roundtable discussions in small groups facilitated by YONOs, who have just walked in your footsteps, to mid-career folks, who can shed light on the next steps ahead.

3:00 p.m. – 4:00 p.m.  All you ever wanted to know about becoming a Neuro-Ophthalmologist: For Trainees, Residents, and Fellows

Table 1: Finding A Job/Negotiating Contracts (Neuro Based), Janet Rucker, MD
Table 2: Expertise On Private Practice And Academic Models, Madhu Agarwal, MD
Table 3: Ophthalmology Perspective On N-O, Julie Falardeau, MD
Table 4: Neurology Perspective On N-O, Greg Van Stavern, MD

4:00 p.m. – 5:00 p.m.  So now I have a job, where do I go from here? For junior attendees in private practice or academics in their first 5 years out of training

Tables 1 & 2: Academic Advancement/Career Navigation, Kathleen B. Digre, MD & Mark L. Moster, MD
Table 3: Navigating Your Practice, Keeping Up On Your Academics/Administrative Skills, Preston C. Calvert, MD
Table 4: Dollars And Sense: Billing And Coding For Neuro-Ophthalmology, Matthew Kay, MD
Table 5: Private Practice/Academic Neuro-Ophthalmology Perspective, JNO/Publishing Advice, Lanning Kline, MD

5:00 p.m. – 7:00 p.m.  SCIENTIFIC PLATFORM PRESENTATIONS: SESSION I [2 CME]  Ballroom

Tuesday, February 24

6:00 a.m. – 6:45 a.m.  Yoga Class  Spreckels Complex
6:30 a.m. – 12:30 p.m.  Registration  Ballroom Foyer
6:30 a.m. – 7:30 a.m.  Breakfast  Crown Room
6:30 a.m. – 12:15 p.m.  Exhibits  Crown Room
6:30 a.m. – 7:30 a.m.  JNO Editorial Board Meeting  Hanover Room
7:00 a.m. – 7:30 a.m.  YONO Committee Meeting  Garden Room
7:00 a.m. – 7:30 a.m.  CME Committee Meeting  Executive Room

7:30 a.m. – 12:00 p.m.  SCIENTIFIC PLATFORM PRESENTATIONS: SESSION II [3.75 CME]  Ballroom
9:15 a.m. – 9:30 a.m.  Update: The Journal of Neuro-Ophthalmology  Lanning Kline, MD, Editor-in-Chief & Jason Roberts, PhD, Managing Editor
### Tuesday, February 24 (continued)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
<th>Location</th>
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<tr>
<td>9:30 a.m. – 10:00 a.m.</td>
<td>Coffee Break</td>
<td>Crown Room</td>
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<tr>
<td>12:15 p.m. – 4:15 p.m.</td>
<td>The USS Midway Tour</td>
<td>Depart from Orange Avenue Lawn</td>
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<tr>
<td>12:15 p.m. – 4:15 p.m.</td>
<td>San Diego Zoo Excursion</td>
<td>Depart from Orange Avenue Lawn</td>
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<tr>
<td>12:15 p.m. – 5:15 p.m.</td>
<td>Balboa Park/Museums Excursion</td>
<td>Depart from Orange Avenue Lawn</td>
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<td>12:15 p.m. – 5:00 p.m.</td>
<td>NANOS Board Meeting</td>
<td>Windsor Room</td>
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<td>6:00 p.m. – 9:30 p.m.</td>
<td>POSTER SESSION</td>
<td>Grande Ballroom</td>
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**NOTE:**
- Guests are welcome. Event is complimentary for attendees but guests must purchase tickets. Tickets are available for purchase for $50 per person.

### Wednesday, February 25

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<tr>
<th>Time</th>
<th>Event Description</th>
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<tr>
<td>6:30 a.m. – 12:30 p.m.</td>
<td>Registration</td>
<td>Ballroom Foyer</td>
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<tr>
<td>6:30 a.m. – 7:30 a.m.</td>
<td>Breakfast</td>
<td>Crown Room</td>
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<tr>
<td>7:00 a.m. – 7:30 a.m.</td>
<td>Annual NANOS Business Meeting (all encouraged to attend)</td>
<td>Ballroom</td>
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<tr>
<td>7:30 a.m. – 9:30 a.m.</td>
<td>Sizzling Hot Topic: The IIHTT: What Have We Learned? [2 CME]</td>
<td>Ballroom</td>
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**Moderators:** Michael Wall, MD & Kathleen B. Digre, MD

This symposium is designed to give NANOS members detailed results and discussion of the IIHTT. The primary and secondary study outcomes including adverse events and treatment failures will be discussed. The 6 month outcome of changes in the OCT and quality of life measures will be presented along with the effects of weight loss in the context of all of the findings.

Upon completion of this course, participants should be able to: 1) Discuss the four main outcomes of the IIHTT (visual field MD, papilledema grade, QoL and CSF pressure; 2) Describe when acetazolamide-plus-diet should be considered as a treatment; 3) Describe 3 side effects to be aware of in recommending acetazolamide therapy; 4) Describe key OCT findings in IIH; 5) Recommend weight loss to patients with IIH and understand its importance in treatment of IIH; and 6) List 3 aspects of quality of life that will need to be addressed in patients with IIH.

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<tr>
<th>Time</th>
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<tr>
<td>7:30 a.m. – 8:00 a.m.</td>
<td>What Have We Learned from the Idiopathic Intracranial Hypertension Treatment Trial, Michael Wall, MD</td>
<td>Ballroom</td>
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<td>8:00 a.m. – 8:10 a.m.</td>
<td>Q&amp;A</td>
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<td>8:10 a.m. – 8:20 a.m.</td>
<td>Quality of Life in IIHTT Subjects 6 Months after Diagnosis and Treatment, Kathleen B. Digre, MD</td>
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<td>8:20 a.m. – 8:25 a.m.</td>
<td>Q&amp;A</td>
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<tr>
<td>8:25 a.m. – 8:35 a.m.</td>
<td>Treatment of Failures in the Idiopathic Intracranial Hypertension Treatment Trial, Julie Falardeau, MD</td>
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<td>8:35 a.m. – 8:40 a.m.</td>
<td>Q&amp;A</td>
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<td>8:40 a.m. – 8:50 a.m.</td>
<td>Safety and Tolerability of Acetazolamide: The IIHTT Experience, Martin ten Hove, MD, M.Eng, FRCSC</td>
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<td>8:50 a.m. – 8:55 a.m.</td>
<td>Q&amp;A</td>
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<td>8:55 a.m. – 9:05 a.m.</td>
<td>Change in Body Weight after a 6-Month Telephone Weight Loss Intervention in Normal Weight, Overweight, and Obese Subjects with the Idiopathic Intracranial Hypertension, Betty Kovacs, MS, RD</td>
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<tr>
<td>9:05 a.m. – 9:10 a.m.</td>
<td>Q&amp;A</td>
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<td>9:10 a.m. – 9:30 a.m.</td>
<td>Panel Discussion</td>
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This symposium will present a case initiated discussion of a variety of topics covering the entire spectrum of mechanical, non-neurogenic strabismus in adults and children. Speakers will discuss various broad etiologic categories of mechanical strabismus, focusing on recent literature, state-of-the-art diagnostic techniques, favorite methods of distinguishing mechanical and neurogenic strabismus, anecdotal experience, and treatment options. Topics will be introduced by a short clinical case illustrating the overlap of mechanical and neurogenic strabismus with careful emphasis on differential diagnosis.

Upon completion of this course, participants will have an increased understanding of mechanical causes of strabismus and describe how to differentiate mechanical from neurological causes of strabismus. Specifically, they will describe: 1) Emerging concepts in the pathogenesis of “divergence insufficiency” esotropia as a form of mechanical strabismus; 2) How various ocular surgeries can be complicated by post-operative restrictive strabismus; 3) Pathological processes of the eye muscles that can cause vertical and horizontal restrictive strabismus; 4) The presentation of various congenital processes that cause mechanical strabismus in children and adults; and 5) How strabismus from orbital and peri-orbital disease presents and differs from neurologic causes of strabismus.

The recently published idiopathic intracranial hypertension treatment trial (IIHTT) recommends weight loss along with acetazolamide to treat idiopathic intracranial hypertension. While most Neuro-Ophthalmologists advise weight loss to patients who are overweight or obese, most are unsure of what to recommend for achieving this. Successful weight loss and maintenance requires diet, physical activity, and behavior modification, along with a strong support system. Most diets fail to provide this and doctors are not trained to address all of these, so patients are unsuccessful with long-term maintenance. In this session we will review the basic principles of weight loss including the physiology, the roles of diet, exercise, and behavior modification. We will differentiate between the facts vs fiction of weight loss and maintenance.
We will also review evidence-based weight loss strategies and programs with the goal that each Neuro-Ophthalmologist has a practical action plan that fits their type of clinic population.

Upon completion of this course, participants should be able to: 1) Describe basic principles of weight loss—the myths and realities behind them; 2) Address what the IIHTT taught us about weight loss and what works for women and men with IIH; 3) Be able to list reputable weight loss strategies and programs and find these resources; and 4) Have a practical action plan on how to approach weight loss in their practice setting (private practice, academic, multi-specialty); and 5) Discuss weight loss strategies in children.

2:30 p.m. – 5:30 p.m.  Optional Symposium: Eye Movement and Vestibular Skills Transfer Session [3 CME]

Moderators: Janet Rucker, MD and David Newman-Toker, MD, PhD
Carousel Room

Dizziness and visual symptoms resulting from abnormal eye movements are common chief complaints in a Neuro-Ophthalmology practice and etiologies range from benign to ominous. The examination skill set required for optimal localization and accurate diagnosis demands familiarity with pattern recognition, special techniques for elicitation of exam signs, and identification of subtle abnormalities. Further, the ideal exam skill set for such symptoms encompasses overlapping areas of neuro-ophthalmologic and neuro-otologic expertise. This skills transfer session will provide a hands-on learning opportunity, supplemented with video examples of pathology, during participant rotation through stations for each of the following skills: vestibular ocular reflex assessment, positional testing of posterior and horizontal semicircular canals, provocative testing techniques for nystagmus elicitation, gaze testing of dynamic eye movements such as saccades and smooth pursuit, and interpretation of nystagmus patterns.

Upon completion of this course, participants should be able to: 1) Competently perform core neuro-vestibular examination skills; 2) Distinguish peripheral vestibular disorders from brainstem and cerebellar disease based on examination findings; and 3) Correctly identify nystagmus patterns.

2:30 p.m. – 2:55 p.m.  Introduction to the Vestibular Exam (with ARS), David Newman-Toker, MD

2:55 p.m. – 4:50 p.m.  Hands-on Training Sessions (6 station rotations, 15 minutes each / 2 minutes to rotate with additional time to revisit stations after formal rotations)

VOR Testing, David Newman-Toker, MD, PhD and John Pula, MD

Positional Testing of Posterior Semicircular Canals, Eric R. Eggenberger, DO and Preston C. Calvert, MD

Positional Testing of Horizontal Semicircular Canals, Luis Mejico, MD and Kevin Kerber, MD

Provocative Testing (nystagmus elicitation), Jorge C. Kattah, MD and Catherine Cho, MD

Gaze Testing (ocular alignment, saccades, smooth ocular pursuit, and smooth eye-head tracking), Janet Rucker, MD and Matthew Thurtell, MD

Nystagmus Interpretation, Marc Dinkin, MD and Mark J. Morrow, MD

4:50 p.m. – 5:30 p.m.  Unknown Case Presentation and Summary, Jorge C. Kattah, MD

4:30 p.m. – 5:30 p.m.  Abstract Committee Meeting
Garden Room

4:30 p.m. – 5:30 p.m.  International Relations Committee Meeting
Tudor Room

4:30 p.m. – 5:30 p.m.  Productivity/Compensation Committee Meeting
Hanover Room

5:30 p.m. – 6:30 p.m.  Bylaws Committee Meeting
Garden Room

5:30 p.m. – 6:30 p.m.  Patient Information Committee Meeting
Tudor Room

5:30 p.m. – 6:30 p.m.  Publications Committee Meeting
Hanover Room

6:45 p.m. – 10:00 p.m.  Annual NANOS Reception and Banquet
Windsor Lawn

Event is casual.
This symposium is a combined program of AGS (American Glaucoma Society) and NANOS aiming to clarify the relationship between glaucoma and other optic neuropathies.

The structure of the symposium is divided into 3 sections: 1) Establishing whether there is a difference between high tension glaucoma and normal tension glaucoma. This section will explore the contribution of intraocular pressure to glaucoma as well other factors that might be contributory; 2) Differentiating glaucoma from other optic neuropathies and deciding whom to image with MRI; and 3) Looking at glaucoma as a neurodegenerative disorder and reviewing issues of neuroprotection and neuroregeneration.

Upon completion of this course, participants should be able to: 1) Identify important contributions to glaucomatous damage other than intraocular pressure; 2) Identify which glaucoma patients should be evaluated for other causes of optic neuropathy; and 3) Identify areas of research ripe for collaboration between glaucoma and neuro-ophthalmologic researchers.
11:15 a.m. – 12:32 p.m. The Neurology of Glaucoma

11:15 a.m. – 11:23 a.m. Glaucoma as a Neurological Disease, Helen V. Danesh-Meyer, MD, PhD, FRANZCO

11:23 a.m. – 11:31 a.m. The Brain in Glaecomatous Optic Neuropathy: Evidence for Trophic-Factor Mediated Self-Repair, David J. Calkins, PhD

11:31 a.m. – 11:39 a.m. What are the Common Neurodegenerative Pathways Relevant to Glaucoma? Stuart J. McKinnon, MD, PhD

11:39 a.m. – 11:47 a.m. Neuro-Protection in Glaucoma: Where are We Going? Leonard A. Levin, MD, PhD

11:47 a.m. – 11:55 a.m. Neuro-Regeneration for Glaucoma and other Optic Neuropathies, Jeffrey Goldberg, MD, PhD

11:55 a.m. – 12:03 p.m. Mitochondrial Disease and Glaucoma, Alfredo A. Sadun, MD, PhD

12:03 p.m. – 12:19 p.m. Debate: Non-IOP Lowering Therapies will be the Future of Glaucoma Management. Pro: Harry Quigley, MD; Con: Christopher A. Girkin, MD, MSPH, FACS

12:19 p.m. – 12:32 p.m. Q & A

2:00 p.m. – 5:30 p.m. AGS/NANOS Afternoon Session

AGS will lead the afternoon collaboration with NANOS. The scientific session will feature the following topics: 1) The Pathogenesis of Optic Neuropathy: Glaucoma vs. The Rest and; 2) Optic Nerve Imaging: New Parameters and Techniques, a platform presentation session, poster viewing and an afternoon break.

**Please note that the CME credits for this session will be provided through AGS.

ACCREDITATION: This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through sponsorship of the North American Neuro-Ophthalmology Society. NANOS is accredited by the ACCME to provide continuing medical education (CME) for physicians. The North American Neuro-Ophthalmology Society NANOS designates this live activity for a maximum of 32.25 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

2015 NANOS Annual Meeting Evaluation

The NANOS 2015 Annual Meeting Evaluation will be online only. The evaluation can be completed during the meeting or before Monday, March 16. An official CME form will be emailed to you three weeks after the meeting.

Total Annual Meeting Credits: 32.25 Credit(s)™

To Access the NANOS 2015 Annual Meeting Evaluation, you can use the following link or scan the QR code to the left.


To Download a QR Code Reader:
1. Open your App Store and download a ‘QR Code Reader’
2. Open the QR barcode app on your smartphone, and choose "scan from camera" or "scan QR code" from the main menu
### NANOS 2015 SPEAKERS AND MODERATORS

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation and Location</th>
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<tbody>
<tr>
<td>Laura Balcer, MD, MSCE</td>
<td>New York University School of Medicine, New York, NY</td>
</tr>
<tr>
<td>John Crompton, MBBS,</td>
<td>Royal Adelaide Hospital, Adelaide, Australia</td>
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<tr>
<td>Jeffrey Goldberg, MD, PhD</td>
<td>Shiley Eye Center, University of California San Diego, San Diego, CA</td>
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<tr>
<td>Kevin Kerber, MD</td>
<td>University of Michigan Hospital, Ann Arbor, MI</td>
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<tr>
<td>Rudrani Banik, MD</td>
<td>New York Eye and Ear Infirmary of Mount Sinai, New York, NY.</td>
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<tr>
<td>Helen V. Danesh-Meyer, MD</td>
<td>University of Auckland, Auckland, New Zealand</td>
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<tr>
<td>Lynn Gordon, MD, PhD</td>
<td>University of California Jules, Stein Eye Institute, Los Angeles, CA</td>
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<td>Shelley Klein, CO</td>
<td>Tufts Medical Center, Boston, MA</td>
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<tr>
<td>Valérie Biousse, MD</td>
<td>Emory University School of Medicine, Atlanta, GA</td>
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<tr>
<td>Joseph L. Demer, MD, PhD</td>
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<td>David B. Granet, MD</td>
<td>Shiley Eye Center, University of California San Diego, La Jolla, CA</td>
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<td>Betty Kovacs, MS, RD</td>
<td>Mount Sinai St. Luke's Hospital, New York, NY</td>
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<tr>
<td>Laura Bonelli, MD</td>
<td>University of California Jules, Stein Eye Institute, Los Angeles, CA</td>
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<tr>
<td>Kathleen B. Digre, MD</td>
<td>John Moran Eye Center, University of Utah, Salt Lake City, UT</td>
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<td>Ari J. Green, MD</td>
<td>University of California, San Francisco, CA</td>
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<td>Howard R. Krauss, MD</td>
<td>Pacific Eye &amp; Ear and Pacific Neuroscience Institute, Los Angeles, CA</td>
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<td>Beau Bruce, MD, PhD</td>
<td>Emory University, Atlanta, GA</td>
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<td>Marc Dinkin, MD</td>
<td>Weill Cornell Medical College, New York Presbyterian Hospital, New York, NY</td>
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<tr>
<td>Eric R. Eggenberger, DO</td>
<td>Michigan State University, East Lansing, MI</td>
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<td>Gena Heidary, MD, PhD</td>
<td>Boston Children's Hospital, Boston, MA</td>
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<tr>
<td>Andrew G. Lee, MD</td>
<td>Houston Methodist Hospital, Houston, TX</td>
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<tr>
<td>Mike Burdon MB, BS,</td>
<td>Selby Oak Hospital, Solihull, UK</td>
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<td>Mike Burdon MB, BS, FRCOPH, MRCP</td>
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<td>Julie Falardeau, MD</td>
<td>Oregon Health Science University, Casey Eye Institute, Portland, OR</td>
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<td>Gena Heidary, MD, PhD</td>
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<td>rod Foroozan, MD</td>
<td>Baylor College of Medicine, Houston, TX</td>
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<tr>
<td>Ruth Huna-Baron, MD</td>
<td>Sheba Medical Center, Ramat-Gan, Israel</td>
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<tr>
<td>Richard Lee, MD, PhD</td>
<td>University of Miami Miller School of Medicine, Bascom Palmer Eye Institute, Miami, FL</td>
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<td>Preston C. Calvert, MD</td>
<td>Calvert Dynamics, LLC, Potomac, MD</td>
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<td>Courtneuy Francis, MD</td>
<td>University of Washington, Seattle, WA</td>
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<tr>
<td>Paul L. Kaufman, MD</td>
<td>University of Wisconsin - Madison School of Medicine and Public Health, Madison, WI</td>
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<tr>
<td>Leonard A. Levin, MD, PhD</td>
<td>McGill University and University of Wisconsin, Montreal, Canada</td>
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<tr>
<td>Erika Castro, CO</td>
<td>University of California San Diego Dept. of Ophthalmology, San Diego, CA</td>
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<tr>
<td>Clare Fraser, MD</td>
<td>Sydney Eye Hospital, Save Sight Institute University of Sydney, Sydney, Australia</td>
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<tr>
<td>Satoshi Kashii, MD, PhD</td>
<td>Aichishukutoku University, Nagakute, Japan</td>
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<tr>
<td>Richard Lee, MD, PhD</td>
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<tr>
<td>Catherine Cho, MD</td>
<td>Mount Sinai Hospital, New York, NY</td>
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<tr>
<td>Benjamin J. Frishberg, MD</td>
<td>The Neurology Center, Oceanside, CA</td>
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<tr>
<td>Jorge C. Kattah, MD</td>
<td>University of Illinois, OSF, Saint Francis Hospital, Peoria, IL</td>
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<td>Grant Liu, MD</td>
<td>University of Pennsylvania, Philadelphia, PA</td>
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<td>Anne L. Coleman, MD, PhD</td>
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<tr>
<td>Chris Girkin, MD MSPH, FACS</td>
<td>University of Alabama, Birmingham, Birmingham, AL</td>
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<tr>
<td>Shana McCormack, MD</td>
<td>Children's Hospital of Philadelphia, Philadelphia, PA</td>
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NANOS 2015 SPEAKERS AND MODERATORS

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Iowa City, IA

Robert N. Weinreb, MD
Shiley Eye Center, University of California San Diego
San Diego, CA

Janey Wigg, MD, PhD
Harvard Medical School, Massachusetts Eye and Ear Infirmary
Boston, MA

M. Roy Wilson, MD, MS
Wayne State University
Detroit, MI

Martin B. Wax, MD
Dept. Ophthalmology and Visual Sciences Rutgers, New Jersey Medical School
Newark, NJ
**GROUND TRANSPORTATION**

Travel time between the airport and the hotel is approximately 20 minutes. To arrange for private car transportation, please contact LaCosta Limousine at 1-888-299-5466. Approximate taxi fare from the San Diego International Airport to the Hotel del Coronado is $30 each way.

View the NANOS website for additional transportation options, directions from the airport, and further details.

**SOCIAL FUNCTIONS**

**SATURDAY, FEBRUARY 21**

San Diego Zoo Safari Park- $110  
10:00 a.m. – 4:00 p.m.

*Price includes admission and transportation. Departure location will be from the Orange Avenue lawn which is located to the left of the Hotel del Coronado front entrance.

With over 2,000 acres of wildlife preserve including upwards of 4,000 rare and endangered animals housed in habitats replicating their native homelands, the San Diego Zoo Safari Park offers education and entertainment. Nairobi Village is home to two dynamic interactive exhibits: the Hidden Jungle, where you can mingle with exotic butterflies and tropical hummingbirds, and Lorikeet Landing, a walk-through aviary for feeding nectar to rainbow lorikeets. Nairobi Village also features an expansive gorilla grotto for a large troop of lowland gorillas and the Animal Care Center, which encompasses a baby animal nursery, exhibits for koalas and small primates, and a petting corral with exotic deer, antelope, and goats.

The Africa Tram Safari is an experience aboard an open air tram that runs on bio diesel. Complete with an interactive island research station, primate island, giraffe feeding station, and safari surprises, it brings people closer to the animals in a way not even an African safari can replicate! The Journey into Africa tour is designed to give you a glimpse of the amazing diversity found there.

**Opening Reception**  
6:00 p.m. – 7:30 p.m.  
Please join us for the Opening Reception on the Sun Deck at Hotel del Coronado. All are welcome to attend the opening reception, which features complimentary cocktails and several food stations.

**SUNDAY, FEBRUARY 22**

**Members-in-Training Program and Reception**  
5:30 p.m. – 6:30 p.m.  
New to Neuro-Ophthalmology? All students, residents and fellows are encouraged to attend!
MONDAY, FEBRUARY 23

WIN Luncheon

Join your colleagues for the Women in Neuro-Ophthalmology (WIN) Luncheon & Meeting. However, all are welcome to attend even without the purchase of a lunch.

WIN Lunch Option: California Citrus Salad with Orange Balsamic Vinaigrette  
Vegetable and Cheese Ravioli, Wild Mushrooms and Asparagus Cream, Asiago cheese Sauce  
Fresh Rolls and Butter  
Seasonal Fruit Panna Cotta  
Coffee, Decaffeinated Coffee, Specialty 7 Herbal Teas, Ice Tea

Young Neuro-Ophthalmologist Forum

While all are welcome to attend, this forum is specifically designed for residents, fellows and Neuro-Ophthalmologists in the early years of their career. The YONO Committee has incorporated last year’s positive, constructive feedback and present a re-vamped format. The revised forum will have multiple rotating roundtable discussions in small groups facilitated by YONOs, who have just walked in your footsteps, to mid-career folks, who can shed light on the next steps ahead.

3:00 p.m. – 4:00 p.m. **All you ever wanted to know about becoming a Neuro-Ophthalmologist:** For trainees, residents, and fellows

4:00 p.m. – 5:00 p.m. **So now I have a job, where do I go from here?** For junior attendees in private practice or academics in their first 5 years out of training

TUESDAY, FEBRUARY 24

*The USS Midway Tour, San Diego Zoo, and Balboa Park/Museum pricing includes admission, transportation, and a boxed lunch. All excursions will depart from the Orange Avenue lawn which is located to the left of the Hotel del Coronado front entrance.

USS Midway Tour - $75

Guests will have a once-in-a-lifetime opportunity as they step onto a genuine Naval Aircraft Carrier for a fascinating tour of the USS Midway. A coveted opportunity, the privilege of actually boarding one of these impressively immense ships is truly unique. Over ten football fields in length, the USS Midway was built as the largest seagoing vessel in the world—the first ship too big to cross the Panama Canal. Her patriotically inspiring history in service stands as a testament to United States military achievement. Guests will have the opportunity to explore the USS Midway, on a self-guided audio tour featuring 60 exhibits including 24 restored aircraft. The Midway docents, many of whom are Midway veterans, will provide interactive, storytelling at many of the areas on the ship. Wear comfortable shoes, suitable for stairs and ladders; a light jacket is recommended on the Flight Deck.
San Diego Zoo - $100  
12:15 p.m. – 4:15 p.m.

The San Diego Zoo is renowned all over the world for its expansive collection of the rarest animals on earth housed in an intimate setting of exotic botanical foliage. The visit will include a narrated bus safari, taking you into the lush, sweeping canyons and countless animal enclosures. Take a plunge into the arctic as you get a glimpse of the Polar Bears dancing in the cold ice-filled waters. Otherwise, take a stroll through Tiger River, a misty path where along the way you’ll encounter hundreds of reptiles and mammals and possibly come within a clawing distance of a Sumatran Tiger. See the spectacular Gorilla Tropics, one of the most popular exhibits. Guests can board a thrilling ride on the skyfari aerial tram and enjoy a panoramic, bird’s eye perspective. Apart from wildlife, the park houses an extensive and highly acclaimed collection of plants, orchids, palms, coral trees, and more.

Balboa Park/Museums - $110  
12:15 p.m. – 5:15 p.m.

Balboa Park is San Diego’s premier colonial landmark. Stretching over 1,400 acres nestled in the hills of downtown, this urban park houses 85 cultural and recreational organizations, including seventeen museums. Balboa Park is a cultural Mecca, the largest concentration of museums and cultural institutions outside The Mall in Washington, D.C. A day pass with admission to your choice of any (4) museums – each guest can customize their day and select the museums they personally wish to visit. The museums include: Natural History Museum, Reuben H. Fleet Science Center, Mingei International Art Museum, Museum of Photographic Arts, Air & Space Museum, Centro Cultural de la Raza; World Beat Center, Hall of Champions Sports Museum, Model Railroad Museum, Automotive Museum, and the Veteran’s Memorial Center Museum.

TUESDAY, FEBRUARY 24

Poster Session  
6:00 p.m. – 9:30 p.m.

This year’s Poster Session will include a reception and dinner. Event is complimentary for attendees, but guests must purchase tickets. Tickets are available for purchase for $50 per person. The buffet will open at 6:00 p.m. Authors will present their posters between 6:45 p.m. and 8:15 p.m. Odd numbered posters: 6:45 p.m. – 7:30 p.m., Even numbered posters: 7:30 p.m. – 8:15 p.m.

WEDNESDAY, FEBRUARY 25

Annual NANOS Reception and Banquet  
6:45 p.m. – 10:00 p.m.

The Annual Meeting Banquet will take place on the Windsor Lawn and beach front of the Hotel del Coronado. Join your colleagues for a fun, casual evening of socializing, dining and beach side bonfires at the NANOS Annual Reception and Banquet. Guests and children are welcome. Event is complimentary for attendees but guests must purchase tickets. Tickets are available for purchase for $100 per person. Beach appropriate shoes are highly recommended.

GUEST MEETING LOUNGE AREA  
Available 9:00 a.m. – 11:00 a.m.

Sunday February 21-Wednesday, February 25

Relax and enjoy the company of other guests in the ‘Garden Patio’ located in the center of the Hotel del Coronado.
NANOS would like to thank the following Supporters for their generous contribution:

- **Merz Neurosciences**
  - $10,000

- **TEVA Neurosciences**
  - $10,000

To access the NANOS Mobile App:
1. Visit your smartphone’s app store and search for MA eProgram
2. Download and open the mobile app.
3. Scan the QR code below OR enter the following login information:
   - Username: nanos
   - Password: nanos

**Features:**
- Full Program Schedule
- Faculty Listing
- Exhibitor and Support Guide
- Program Search function
- Abstracts
- Help Information (CME, presenter instructions, etc.)

**NANOS REGISTRATION/HELP DESK HOURS:**

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: Ballroom Foyer</td>
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<tr>
<td>Saturday:</td>
<td>2:00 p.m. – 8:00 p.m.</td>
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<tr>
<td>Sunday:</td>
<td>6:30 a.m. – 5:30 p.m.</td>
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<tr>
<td>Monday–Thursday</td>
<td>6:30 a.m. – 12:30 p.m.</td>
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</tbody>
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**DIETARY NEEDS:**

**KOSHER:** *The Place Catering* offers private Kosher meal options that can be delivered directly to the Hotel del Coronado. See information below to learn more about their services and to place your orders.

*The Place Catering*
P: (858) 549-7000
E: theplace@sandiegokosher.com
W: [http://www.sandiegokosher.com/#services](http://www.sandiegokosher.com/#services)

**SPECIAL REQUIREMENTS:** NANOS fully complies with the legal requirements of the Americans with Disabilities Act and the rules and regulations thereof.

**WIFI Instructions:**

1. Select the wireless network “HOTELDEL-MEETING”
2. Start your Internet browser and go to a public website
3. Enter the following access code: nanos2015
4. Accept “Terms of Service”

Complimentary WIFI coverage will be available in all Meeting Rooms at the Hotel del Coronado.
NANOS would like to thank the following Exhibitors:

EXHIBITOR HOURS:
This year’s Exhibit Hall is located in the Crown Room. The Exhibit Hall will be open during the days and times listed below. All of your breakfasts and breaks will be held in the Exhibit Hall, so be sure to take advantage and visit the exhibitors.

Sunday, February 22, 6:30 a.m. – 3:30 p.m.
Monday and Tuesday, February 23-24, 6:30 a.m. – 12:15 p.m.

Diagnosys, LLC—Booth 11
Phone: (978) 845-1600
Fax: (978) 458-1775
Email: support@diagnosysllc.com
www.diagnosysllc.com

Heidelberg Engineering Company Description—Booth 6
1808 Aston Avenue Suite 130
Carisbad, CA 92008
Phone: (800) 931-2230
Fax: (760) 536-7100
Email: salesUSA@HeidelbergEngineering.com
www.HeidelbergEngineering.com

Heidelberg Engineering is a pioneer in diagnostic imaging. SPECTRALIS® Multi-Modality Diagnostic Imaging with confocal scanning laser ophthalmoscopy, optical coherence tomography, angiography, and autofluorescence imaging capabilities, adds new dimensions to assessing axonal loss and tracking neurodegeneration in the retina. Our goal is to help researchers better understand how retinal structure and function may relate to systemic neurodegenerative diseases.

i2eye Diagnostics Limited—Booth 7
9 Edinburgh Bioquarter
Edinburgh EH16 3UX, United Kingdom
Phone: (608) 632-0914
Email: steve.elfrink@i2eyediagnostics.com
www.i2eyediagnostics.com

i2eye is at the forefront of objective visual testing. The company is pioneering technology for assessing vision in patients who, for reason of physical or mental impairment, are unable to participate in conventional testing. At NANOS the company will be showcasing its SVOP eye-tracker perimeter and its video assisted Vector technology.

LHON Project at UMDF—Booth 16
8085 Saltsburg Road, Suite 201
Pittsburgh, PA 15237
Phone: (760) 518-3184
Email: LHONpoince@aol.com
www.LHON.ORG

The LHON Project at UMDF is building a global LHON patient community. We offer an annual conference, monthly teleconferences, and individual support/education. We guide affected individuals and their families to neuro-ophthalmologists, genetic counselors and disability services. We engage the patient community to conduct fundraising in support of LHON research.

RETILAB-Roland Consult—Booth 9
1570 St. Paul Avenue
Gumee, IL
Phone: (815)-239-6420
Fax: (815) 385-3720
Email: kevin.m@retilab.com
www.retilab.com

RETILAB’s Electro-Diagnostic Systems accurately map RNFL, pathway and neurological dysfunction – locally, layer by layer and with pinpoint specificity – providing valuable information about the location and nature of sub-clinical and pathological changes in visual & neurocognitive health. Each multi-modality RETILAB system can be tailored to specialty requirements. Learn More at Booth 9.

This year’s Exhibit Hall is located in the Crown Room. The Exhibit Hall will be open during the days and times listed below. All of your breakfasts and breaks will be held in the Exhibit Hall, so be sure to take advantage and visit the exhibitors.

Powerful enough to do any known test in ophthalmic electrophysiology, yet simple enough to use in any setting, our equipment is designed to smoothly transition new diagnostic protocols from the research lab to the clinic. Building on this connection to research, our new clinical products bring you the most powerful, up-to-date diagnostic protocols available.

From pharmaceuticals to medical supplies and instruments, Eye Care and Cure provides everything you need for your practice. This year at NANOS we will be featuring the Extra-Ocular Motility Monitor (EOMM), a dynamic system for quick, accurate and reproducible evaluations and measurements in patients with double vision and adult-onset strabismus.

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10810 Nesbitt Ave South
Bloomington, MN 55437
Phone: (952) 496-0432
Fax: (952) 403-7900
Email: info@fresnelprism.com
www.Fresnel-prism.com

Fresnel Prism & Lens Co. offers invaluable and affordable products used by Neuro-Ophthalmologists in patient evaluation and treatment. 3M Press-On Prisms, Fresnel Prism Trial Sets, Bangerter Occlusion Foils & Occlusion Patches are just a few. New items: Prism Adapter and Nomo-graph Kit. Yes, Low Tech but they work!

Haag-Streit USA—Booth 10
3535 Kings Mills Road
Mason, OH 45040
Phone: (513) 336-7255
Fax: (513) 336-7260
Email: clizzard@haag-streit-usa.com
www.haag-streit-usa.com

Haag-Streit USA provides a wide array of LED slit lamps with video and digital capture; the new Lenstar LS 900 optical biometer; EyeCap Imaging System; the new Octopus 900 peripherals; Reliance chairs and instrument stands; Clement Clarke hand-held slit lamps and tonometers.
M&S Technologies, Inc. — Booth 3
5715 West Howard Street
Niles, IL 60714
Phone: (847) 763-0500
Fax: (847) 763-9170
Email: pmcguire@mstech-eyes.com
www.mstech-eyes.com

M&S Technologies is a software development company dedicated to bringing you the very best products in the industry. Our Smart System computerized vision testing systems bring accuracy, science and ease of use that is truly unmatched. The tests, algorithms and protocols have all been peer reviewed and tested by key professionals and scientists in the industry. We believe in treating our customers in the same manner that we would expect to be treated; we truly are not satisfied until you are.

Merz Neurosciences — Booth 12
4215 Tudor Lane
Greensboro, NC 27410
Phone: (336) 856-2003
Fax: (336) 856-0107
Email: info@merz.com
www.merzusa.com

Merz Neurosciences is a specialty healthcare company that develops and commercializes innovative treatment solutions in aesthetics, dermatology and neurology in the U.S. and Canada. Our ambition is to become a recognized leader in the treatment of movement disorders, and in aesthetics and dermatology.

Novartis Pharmaceuticals — Booth 5
1 Health Plaza
East Hanover, NJ 07936
Phone: (888) NOW-NOVA
www.novartis.com

Novartis Pharmaceuticals is dedicated to discovering, developing, manufacturing and marketing prescription drugs that help meet our customers’ medical needs and improve their quality of life.

OtoSim, Inc. - Booth 2
101 College Street, Suite 300
Toronto, Canada
Phone: (647) 255-1321
Fax: (416) 673-665
Email: chris@otosim.com
www.otosim.com

OtoSim Inc offers Otoscopy and Ophthalmoscopy training & simulation systems. Through hands-on simulation devices, databases of clinical scenarios, and enhanced interactivity between the instructor and student(s), OtoSim training systems enable trainees to quickly & effectively develop confidence in their practical otoscopy and ophthalmoscopy skills to excel in the clinical environment.

Richmond Products — Booth 13
4400 Silver Avenue SE
Albuquerque, NM 87108
Phone: (505) 275-2406
Fax: (810) 885-8319
Email: sales@richmondproducts.com
www.richmondproducts.com

Focusing on Neuro and Pediatric Ophthalmology, Richmond Products is an innovator in the manufacture of eye examination products. Products address Ocular Motility, Visual Field, Contrast Sensitivity, Disease Detection, and Binocular Vision.

TEVA Neurosciences — Booth 11
11100 Nail Avenue
Overland Park, KS 66211
Phone: (913) 777-3328
Fax: (215) 795-4195
Email: scott.bischoff@tevapharm.com
www.tevausa.com

Teva Pharmaceuticals, Inc. is committed to increasing access to high-quality healthcare by developing, producing and marketing affordable generic drugs as well as innovative and specialty pharmaceuticals and active pharmaceutical ingredients. Teva’s specialty medicine businesses focus on the therapeutic areas of CNS including pain, respiratory, oncology, and women’s health.

Voxeleron, LLC — Booth 15
4695 Chabot Drive, Suite 200
Pleasanton, CA 94588
Phone: (925) 558-2755
Email: contact@voxeleron.com
www.voxeleron.com

Voxeleron develops world-class medical image analysis software, specializing in optical coherence tomography (OCT) applications. Our product portfolio includes InSight OCT for animal imaging and Orion™, device-independent software for human retinal imaging. We are committed to advancing the capabilities of OCT analysis, accelerating the pace of discovery in clinical research.

Wolters Kluwer — Booth 1
2001 Market Street
Philadelphia, PA 19103
Phone: (215) 521-8200
Email: customerservice@lww.com
www.lww.com

Wolters Kluwer is a leading publisher of medical, health, and science publications, including Journal of Neuro-Ophthalmology. We offer an extensive selection of medical books, journals and electronic media for physicians, nurses, specialized clinicians and students. Please visit our booth to browse our comprehensive product line.

**Back Again This Year! 2015 NANOS Exhibitor Raffle**

Don’t forget to get your raffle card stamped as you visit with the exhibitors. Once your raffle card is complete, drop it off at the Registration Desk by **12:00 pm on Wednesday** and you will be eligible for prize drawings including: **iPad, GoPro, or Gift Cards**
Almost a billion people suffer from neurologic conditions worldwide.

They are what motivates us.

What makes us different makes a difference.

For over 100 years, we’ve committed ourselves to not only designing products that have a meaningful impact on the lives of patients, but thinking beyond our products by developing programs and initiatives that hold the patient’s needs at their center.

We are proud of how we think differently, act differently, and collaborate differently. We have a unique culture of ownership and ambition that allows innovation and creativity to bloom.

To learn more, visit us at www.MerzUSA.com.

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FUTURE NANOS MEETINGS:

2016
42ND ANNUAL MEETING
NANOS
February 27 - March 3, 2016
JW Starr Pass Marriott • Tucson, AZ

2017
43RD ANNUAL MEETING
NANOS
April 1 - April 6, 2017
Washington Marriott Wardman Park • Washington, DC

2018
44TH ANNUAL MEETING
NANOS
February 24 - March 1, 2018
Hilton Waikoloa Village • Waikoloa Village, Hawaii, The Big Island

See You There!

www.nanosweb.org