



2017

43RD ANNUAL MEETING

**NANOS**

April 1 - April 6, 2017

Washington Marriott Wardman Park • Washington, DC

# PROGRAM



NORTH AMERICAN  
NEURO-OPHTHALMOLOGY SOCIETY



## Saturday, April 1

2:00 pm - 8:00 pm	Registration/Help Desk	Thurgood Marshall Foyer
8:00 am - 12:00 pm	NANOS Board Meeting	Hoover
6:00 pm - 7:30 pm	Opening Reception (All are Welcome)	Marriott Foyer

## Sunday, April 2

6:00 am - 6:45 am	Yoga Class	Washington Room 1
6:30 am - 5:30 pm	Registration/Help Desk	Thurgood Marshall Foyer
6:30 am - 7:45 am	Breakfast	Exhibit Hall C
6:30 am - 3:00 pm	Exhibits	Exhibit Hall C
7:45 am - 5:00 pm	<b>FRANK B. WALSH SESSION [6 CME]</b> <i>Co-Chairs: John Jing-Wei Chen, MD, PhD and Jacqueline A. Leavitt, MD</i> <i>Neuroradiologist: Jonathan Morris, MD</i> <i>Neuropathologist: Caterina Giannini, MD, PhD</i>	Thurgood Marshall Ballroom

This symposium 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.

7:45 am - 8:00 am	Introduction	Thurgood Marshall Ballroom
8:00 am - 10:00 am	<b>Frank B. Walsh Session I</b> <i>Moderators: Sophia M. Chung, MD &amp; Collin McClelland, MD</i>	Thurgood Marshall Ballroom
8:00 am - 8:20 am		
8:20 am - 8:40 am		
8:40 am - 9:00 am		
9:00 am - 9:20 am		
9:20 am - 9:40 am		
9:40 am - 10:00 am		
10:00 am - 10:30 am	Coffee Break	Exhibit Hall C
10:30 am - 12:30 pm	<b>Frank B. Walsh Session II</b> <i>Moderators: Michael C. Brodsky, MD &amp; Yanjun (Judy) Chen, MD, PhD</i>	Thurgood Marshall Ballroom
10:30 am - 10:50 am		
10:50 am - 11:10 am		
11:10 am - 11:30 am		
11:30 am - 11:50 am		
10:50 am - 11:10 am		

11:10 am - 11:30 am

12:30 pm - 1:00 pm	Lunch	Exhibit Hall C
1:00 pm - 3:00 pm	Poster Session I: Clinical Highlights in Neuro-Ophthalmology	Exhibit Hall C
	<b>Authors will be standing by their posters during the following times:</b> <b>Odd-Numbered Posters:</b> 1:15 pm - 2:00 pm <b>Even-Numbered Posters:</b> 2:00 pm - 2:45 pm	
3:00 pm - 5:00 pm	<b>Frank B. Walsh Session III</b> <i>Moderators: James A. Garrity, MD &amp; Heather E. Moss, MD, PhD</i>	<b>Thurgood Marshall Ballroom</b>
3:00 pm - 3:20 pm		
3:20 pm - 3:40 pm		
3:40 pm - 4:00 pm		
4:00 pm - 4:20 pm		
4:20 pm - 4:40 pm		
4:40 pm - 5:00 pm		
5:15 pm - 5:45 pm	<b>Frank B. Walsh Committee Meeting</b>	<b>Harding</b>
5:15 pm - 5:45 pm	<b>Fellowship Director's Meeting</b>	<b>Coolidge</b>
5:30 pm - 6:30 pm	<b>Members-in-Training Program and Reception</b> (All Students, Residents and Fellows-in-Training are encouraged to attend)	<b>Marriott Foyer</b>
5:45 pm - 6:15 pm	<b>Fellowship Committee Meeting</b>	<b>Coolidge</b>
Evening	<b>Dinner on your own</b>	

## Monday, April 3

6:00 am - 6:45 am	Yoga Class	Washington Room 1
6:30 am - 5:30 pm	Registration/Help Desk	Thurgood Marshall Foyer
6:30 am - 7:30 am	Breakfast	Exhibit Hall C
6:30 am - 10:00 pm	Exhibits	Exhibit Hall C
7:00 am - 7:30 am	NOVEL Editorial Board/Curriculum Committee Meeting	Hoover
7:30 am - 9:30 am	<b>Journal Club [2 CME]</b> <i>Moderators: Y. Joyce Liao, MD, PhD and Matthew J. Thurtell, MBBS, FRACP</i>	<b>Thurgood Marshall Ballroom</b>

The Journal Club symposium will cover updates on medical conditions of importance to neuro-ophthalmic practice, with review of recent important literature relating to masquerade retinopathies, pediatric optic neuritis, and myasthenia gravis.

Upon completion of this course, participants should be able to: 1) Describe the features, investigation, and management of retinopathies that can masquerade as optic neuropathy; 2) Discuss the investigation and management of pediatric optic neuritis; and 3) Discuss recent updates in the investigation and management of myasthenia gravis.

7:30 am - 7:55 am	<b>Masquerade Retinopathies (AZOOR, MEWDS, AIBSES, ARRON, AIR, Paraneoplastic, CAR, MAR, and PON), Y. Joyce Liao, MD, PhD</b>
7:55 am - 8:00 am	<b>Q &amp; A</b>



8:00 am - 8:25 am	<b>Clinical Trials of Neuro-ophthalmic Interest, Neil R. Miller, MD</b>
8:25 am - 8:30 am	<b>Q &amp; A</b>
8:30 am - 8:55 am	<b>Pediatric Optic Neuritis, Grant T. Liu, MD</b>
8:55 am - 9:00 am	<b>Q &amp; A</b>
9:00 am - 9:25 am	<b>Myasthenia Gravis, Matthew J. Thurtell, MBBS, MSc, FRACP</b>
9:25 am - 9:30 am	<b>Q &amp; A</b>

**9:30 am - 10:00 am**                      **Coffee Break**                      **Exhibit Hall C**

**10:00 am - 12:00 pm**                      **Hot Topics in OCT [2 CME]**                      **Thurgood Marshall Ballroom**  
*Moderators: Eric R. Eggenberger, DO and Victoria S. Pelak, MD*

Optical Coherence Tomography (or OCT) is quickly advancing our understanding of disease pathology and becoming an important research tool for both discovery and outcomes. The use of OCT for the diagnosis of conditions that previously required more invasive techniques is quickly evolving.

Upon completion of this course, participants should be able to: 1) Employ OCT imaging to diagnose optic nerve head drusen; 2) Describe the imaging technique and potential applications of OCT angiography; 3) Describe current utility of OCT in tracking progression and effectiveness of treatment in multiple sclerosis; and 4) Explain current findings and potential utility of OCT in assessment of neurodegeneration in Alzheimer's disease and Parkinson's disease.

10:00 am - 10:15 am	<b>OCT and Optic Nerve Head Drusen, Fiona Costello, MD, FRCPS</b>
10:15 am - 10:20 am	<b>Q &amp; A</b>
10:20 am - 10:35 am	<b>OCT Angiography, Guy V. Jirawuthiworavong, MD, MA</b>
10:35 am - 10:40 am	<b>Q &amp; A</b>
10:40 am - 10:55 am	<b>OCT and Multiple Sclerosis, Elliot M. Frohman, MD, PhD</b>
10:55 am - 11:00 am	<b>Q &amp; A</b>
11:00 am - 11:15 am	<b>OCT and Neurodegeneration of Alzheimer's Disease and Parkinson's Disease, Victoria S. Pelak, MD</b>
11:15 am - 11:20 am	<b>Q &amp; A</b>
11:20 am - 11:35 am	<b>Future of OCT in Neuro-Ophthalmology, Robert C. Sergott, MD</b>
11:35 am - 12:00 pm	<b>Q &amp; A</b>

**1:30 pm - 3:00 pm**                      **Applications of Advanced Retinal Vascular Imaging in Neuro-Ophthalmology [1.5 CME]**                      **Thurgood Marshall Ballroom**  
*Moderator: Hong Jiang, MD, PhD*

The recent advances of ophthalmic imaging techniques, such as the Optic Coherence Tomography Angiography (OCTA) and the retinal function imager (RFI), enable vascular changes in the posterior segment of the eye to be qualitatively and quantitatively analyzed. This symposium will provide an overview of these fast growing, state of the art imaging techniques and their applications to the field of neuro-ophthalmology with clinical study outcomes.

Upon completion of this course, participants should be able to: 1) Recognize the vascular link between the eye and brain; 2) Describe currently available advanced ophthalmic imaging modalities for retinal vascular imaging and their applications in Neuro-Ophthalmology; and 3) Discuss possible changes of retinal microvasculature in optic neuropathy and central nervous system disorders, such as cerebral vascular diseases, multiple sclerosis and dementia.

1:30 pm - 1:50 pm	<b>Update of Retinal Vascular Imaging Quantitative Analysis, Jianhua Wang, MD, PhD</b>
1:50 pm - 2:10 pm	<b>The Application of OCTA in Optic Neuropathy, Marie-Benedicte Rougier, MD, PhD</b>

2:10 pm - 2:30 pm	<b>Retinal Vascular Changes as a Biomarker for Cerebral Vascular Disease,</b> <i>Heather Moss, MD, PhD</i>
2:30 pm - 2:50 pm	<b>Retinal Microvascular Impairment in Multiple Sclerosis and Dementia,</b> <i>Hong Jiang, MD, PhD</i>
2:50 pm - 3:00 pm	<b>Q&amp;A</b>

**2:30 pm - 4:30 pm                      Forum for New and Future Neuro-Ophthalmologists                      Washington Rooms 3-6**

All are welcome to attend. This gathering, however, is especially for students, residents, fellows and Neuro-Ophthalmologists in the early years of their career. There will be small group discussions that provide an opportunity to ask questions, or listen to the questions and advice of others. Attendees can rotate between tables during the session. The first hour of discussions will be led by members of the Young Neuro-Ophthalmology (YONO) Committee who are recently out of fellowship, and is geared towards trainees, residents, and fellows. The second hour will be led by senior Neuro-Ophthalmologists, and is geared towards those in their first years of practice. Attendees can come for one or both hour-long sessions.

2:30 pm - 3:30 pm	<b>Session I: What Do You Want to Know About Becoming a Neuro-Ophthalmologist.</b>
3:30 pm - 4:30 pm	<b>Session II: What Do You Want to Know About Your First Few Years of Practice?</b>

**3:15 pm - 4:45 pm                      Radiation Oncology for the Neuro-Ophthalmologist [1.5 CME]**  
*Facilitator: Scott L. Stafford, MD*                      **Thurgood Marshall Ballroom**

This symposium is designed to introduce the basics of radiation oncology to the audience and will start with an introduction on the physical characteristics of photons and protons that are generated for medicinal use. Then, a case oriented approach to the tumors/conditions seen by Neuro-Ophthalmologists will be conducted including technique, toxicity, and outcomes.

Upon completion of this course, participants should be able to: 1) Describe the differences between protons and photons; 2) Define the role of radiation in orbital and optic nerve tumors; and 3) Evaluate the complexity of radiation as it applies to treating tumors of the orbit.

**5:00 pm - 7:00 pm                      Scientific Platform Presentations: Session I [2 CME]**                      **Thurgood Marshall Ballroom**  
*Moderators: Matthew J. Thurtell, MBBS, FRACP & Michael S. Vaphiades, DO*

## Tuesday, April 4

6:00 am - 6:45 am	<b>Yoga Class</b>	<b>Washington Room 1</b>
6:30 am - 5:30 pm	<b>Registration/Help Desk</b>	<b>Thurgood Marshall Foyer</b>
6:30 am - 7:30 am	<b>Breakfast</b>	<b>Exhibit Hall C</b>
6:30 am - 10:00 am	<b>Exhibits</b>	<b>Exhibit Hall C</b>
6:30 am - 7:30 am	<b>JNO Editorial Board Meeting</b>	<b>Hoover</b>
<b>7:30 am - 12:00 pm</b>	<b>Scientific Platform Presentations: Session II [3.75 CME]</b> <b>Thurgood Marshall Ballroom</b> <i>Moderators (before the break): Y. Joyce Liao, MD, PhD &amp; Steven A. Newman, MD</i> <i>Moderators (after the break): Laura Balcer, MD, MSCE &amp; Ruth Huna-Baron, MD</i>	
<b>9:15 am - 9:30 am</b>	<b>Update: The Journal of Neuro-Ophthalmology</b> <b>Thurgood Marshall Ballroom</b> <i>Lanning Kline, MD, Editor-in-Chief &amp; Jason Roberts, PhD, Managing Editor</i>	
<b>9:30 am - 10:00 am</b>	<b>Coffee Break</b>	<b>Exhibit Hall C</b>
<b>12:00 pm - 6:00 pm</b>	<b>Free Afternoon</b>	<b>24<sup>th</sup> Street Entrance</b>

12:30 pm – 4:30pm	Optional Excursions: Capitol Tour, Segway Tour & Mount Vernon	
6:00 pm - 9:30 pm	Poster Session II: Scientific Advancements in Neuro-Ophthalmology	Exhibit Hall C

*Dinner buffet is included. Guests are welcome. Event is complimentary for attendees but guests must purchase tickets. Tickets are available for purchase for \$50 per person.*

**Authors will be standing by their posters during the following hours:**

**Odd-Numbered Posters:** 6:45 pm - 7:30 pm

**Even-Numbered Posters:** 7:30 pm - 8:15 pm

9:00 pm - 10:00 pm	Abstract Committee Meeting	Hoover
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## Wednesday, April 5

6:30 am - 5:30 pm	Registration/Help Desk	Thurgood Marshall Foyer
6:30 am - 7:30 am	Breakfast	Exhibit Hall C
7:00 am - 7:30 am	Annual NANOS Business Meeting	Thurgood Marshall Ballroom
7:30 am - 11:15 am	<b>Afferent and Efferent Rehabilitative Strategies in Neuro-Ophthalmology [3.5 CME]</b> <i>Moderators: Sashank Prasad, MD and Paul H. Phillips, MD</i>	Thurgood Marshall Ballroom

After diagnosis and treatment, rehabilitation quickly becomes one of the most important aspects of the management of a patient with neuro-ophthalmic disease. There have been many important recent advances in rehabilitative methods for both afferent and efferent visual dysfunction. In this symposium, these methods will be reviewed, with an emphasis on both underlying neuroscientific principles and practical strategies.

Upon completion of this course, participants should be able to: 1) Examine recent data assessing the value of visual field stimulation to attempt to reduce a homonymous visual field deficit; 2) Recognize conceptual issues impacting the use of prisms and augmented vision to treat patients with visual field deficits; 3) Describe rehabilitation strategies for patients with visual loss from optic neuropathy; and 4) Appraise methods to treat convergence insufficiency.

7:30 am - 7:35 am	<b>Introduction and Overview, Paul H. Phillips, MD</b>	
7:35 am - 7:40 am	<b>Case Presentation: Homonymous Hemianopia, Sashank Prasad, MD</b>	
7:40 am - 8:00 am	<b>Update on Visual Field Expansion with Rehabilitative Training, Krystel Huxlin, PhD</b>	
8:00 am - 8:20 am	<b>Fitting Peripheral Prisms for Hemianopia, Eli Peli, MSc, OD</b>	
8:20 am - 8:40 am	<b>Driving Considerations in Teens with Optic Neuropathies, Judith E. Goldstein, OD</b>	
8:40 am - 9:00 am	<b>Q &amp; A</b>	
9:00 am - 9:15 am	<b>Coffee Break</b>	Thurgood Marshall Foyer
9:15 am - 9:35 am	<b>The Roles and Effects of Diplopia and Visual Confusion in the Treatment of Visual Field Loss, Eli Peli, MSc, OD</b>	
9:35 am - 9:55 am	<b>Rehabilitation Strategies for Optic Neuropathies in Adults (AION),</b>	

9:55 am - 10:00 am	<i>Judith E. Goldstein, OD</i>
10:00 am - 10:20 am	<b>Case Presentation: Convergence Insufficiency</b> , <i>Paul H. Phillips, MD</i>
10:20 am - 10:40 am	<b>Convergence Insufficiency: Review of Treatment Trials (Office versus Home Based Treatment)</b> , <i>Susan Cotter, OD, MS</i>
10:40 am - 11:15 am	<b>Convergence Insufficiency: Practical Pearls for Diagnosis and Treatment</b> , <i>Susan Cotter, OD, MS</i> <b>Q &amp; A</b>

<b>11:15 am - 11:20 am</b>	<b>NOVEL Update</b>	<b>Thurgood Marshall Ballroom</b>
<b>11:20 am - 12:00 pm</b>	<b>Jacobson Lecture: Going with the Flow [.75 CME]</b> <i>Presenter: Randy Kardon, MD, PhD</i>	<b>Thurgood Marshall Ballroom</b>

A perspective will be provided on newly discovered aspects of ocular blood flow and how it relates to causes of vision loss seen by Neuro-Ophthalmologists.

Upon completion of this course, participants should be able to: 1) Describe disorders in which choroidal blood flow can be decreased; 2) Describe disorders in which retinal blood flow can be decreased; and 3) Recognize the relationship between retinal blood flow and metabolic activity of retinal neurons.

<b>12:15 pm - 1:30 pm</b>	<b>Research Committee Meeting Luncheon</b>	<b>Stones Throw</b>
<b>1:30 pm - 2:30 pm</b>	<b>Women in Neuro-Ophthalmology (WIN) Forum</b>	<b>Exhibit Hall C</b>

Join your colleagues for a networking event and participate in small group discussions on topics that are relevant to women in Neuro-Ophthalmology.

<b>1:30 pm - 3:00 pm</b>	<b>My baby can't see! [1.5 CME]</b> <i>Moderator: Gena Heidary, MD, PhD</i> <i>Panelists: Mark Borchert, MD, Grant T. Liu, MD, Paul H. Phillips, MD, &amp; Stacy Pineles, MD</i>	<b>Thurgood Marshall Ballroom</b>
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The purpose of this optional symposium, presented by members of the Consortium of Pediatric Neuro-ophthalmologists (CPNO), is to review the assessment of vision during infancy, highlight important symptoms and signs of common neuro-ophthalmic conditions that cause visual dysfunction during infancy, and provide a framework for the diagnostic work up and management of these disease processes.

The workshop will begin with a brief overview of visual development during infancy to frame the discussion. After this overview, four topics including nystagmus in infants, congenital optic nerve anomalies, inherited retinal dystrophies/degenerations, and cortical/central visual impairment will be covered with an illustrative case presentation and a didactic talk.

The nystagmus in infants section will provide insight into the characteristic clinical features of infantile nystagmus syndrome, spasmus nutans, and latent nystagmus with a focus on diagnostic tools useful in clarifying the underlying etiology of nystagmus. The congenital optic nerve anomalies section will focus on novel insights into optic nerve hypoplasia. The retinal dystrophy/degeneration section will review the clinical presentation of an inherited retinal dystrophy/degeneration with a discussion on diagnostic evaluation in that setting. The cortical/central visual impairment section will review the clinical manifestations of this condition. In addition data on the use of novel DTI-related imaging techniques to evaluate the neuro-anatomy of individuals affected with cortical/central visual impairment and recommendations for visual rehabilitation and management of these children will be highlighted.

Upon completion of this course, participants should be able to: 1) Develop an understanding of important milestones in visual development during the first year of life; 2) Review the clinical presentation of nystagmus during infancy and its

diagnostic evaluation; and 3) Promote awareness of cortical visual impairment: its clinical features, epidemiology, and management.

1:30 pm - 1:35 pm	<b>Consortium for Pediatric Neuro-ophthalmologists brief overview, Grant Liu, MD</b>
1:35 pm - 1:40 pm	<b>Case 1, Grant Liu, MD</b>
1:40 pm - 1:55 pm	<b>Case 1, discussant Paul Phillips, MD</b>
1:55 pm - 2:00 pm	<b>Case 2, Grant Liu, MD</b>
2:00 pm - 2:15 pm	<b>Case 2, Discussant: Mark Borchert, MD</b>
2:15 pm - 2:20 pm	<b>Case 3, Grant Liu, MD</b>
2:20 pm - 2:30 pm	<b>Case 3, Discussant: Stacy Pineles, MD</b>
2:30 pm - 2:35 pm	<b>Case 4, Grant Liu, MD</b>
2:35 pm - 2:50 pm	<b>Case 4, Discussant: Gena Heidary, MD, PhD</b>

<b>3:00 pm - 3:30 pm</b>	<b>Consortium of Pediatric Neuro-Ophthalmologists Meeting (CPNO)</b> <i>Facilitator: Mark Borchert, MD</i>	<b>Thurgood Marshall Ballroom</b>
<b>3:15 pm - 5:15 pm</b>	<b>Coding: A Day in the Life of a Neuro-Ophthalmologist [2 CME]</b> Washington Rooms 3-6 (\$50 registration fee required) <i>Moderator: Mark Moster, MD and John Pula, MD</i> <i>Presenter: Jenny Edgar, CPC, CPCO, OCS</i> <i>Coding Specialist, American Academy of Ophthalmology</i>	

For many practices, not only is correct claim submission a goal, making sure documentation meets medical necessity is a must, as audits are on the rise. This two hour course will walk through real-life Neuro-Ophthalmology cases focusing on how time is a factor for exams, plus how modifiers and bundling edits may impact services being submitted. The group will review testing service requirements providing what is necessary for both minor and major surgical procedures.

Upon completion of this course, the participant should be able to: 1) Recognize when to report and E/M vs Eye visit code; 2) Link CPT to ICD-10 to avoid claim denials; 3) Identify appropriate use of the Advance Beneficiary Notice; 4) Apply payer rules to testing services; and 5) Successfully avoid penalties under the MIPS program.

3:15 pm - 5:00 pm	<b>Coding for neuro-ophthalmology with interactive case studies,</b> <i>Jennifer Edgar, CPC, CPCO, OCS</i>
5:00 pm - 5:15 pm	<b>Q&amp;A</b>

<b>4:00 pm - 5:00 pm</b>	<b>International Relations Committee Meeting</b>	<b>Hoover</b>
<b>6:30 pm - 11:00 pm</b>	<b>Annual NANOS Reception and Banquet</b>	<b>Thurgood Marshall Ballroom</b>

## Thursday, April 6

<b>6:30 am - 12:30 pm</b>	<b>Registration/Help Desk</b>	<b>Thurgood Marshall Foyer</b>
<b>6:30 am - 7:30 am</b>	<b>Breakfast</b>	<b>Exhibit Hall C</b>

<b>7:30 am - 9:30 pm</b>	<b>Neuro-Ophthalmologic Side Effects of More Recently Used Medications in Treating Cancer, Rheumatologic Disorders, and Multiple Sclerosis [2 CME]</b> <i>Moderators: Rod Foroozan, MD and Judith E. A. Warner, MD</i>
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This symposium includes a brief case-based overview of neuro-ophthalmic complications limited to new or more recently used systemic medications (including an update from a NANOS platform symposium of 2010 which discussed side effects of chemotherapeutic agents). Participants will recognize relevant potential side effects of systemic



medications they may encounter in clinical practice, directed to ophthalmic and neuro-ophthalmic issues. The symposium will focus on medications developed more recently in the treatment of epilepsy, cancer, rheumatologic disorders, and multiple sclerosis.

Upon completion of this course, participants will be able to: 1) Learn the frequency of visual deficits in patients with refractory epilepsy; 2) List the newer agents used to treat multiple sclerosis, cancer, and rheumatologic disease; and 3) Link the side effects of each agent to the expected neuro-ophthalmic finding.

7:30 am - 7:50 am	<b>Introduction and Lessons from Vigabatrin, Rod Foroozan, MD</b>
7:50 am - 7:55 am	<b>Q &amp; A</b>
7:55 am - 8:25 am	<b>Side Effects of New Cancer Drugs, M. Tariq Bhatti, MD</b>
8:25 am - 8:35 am	<b>Q &amp; A</b>
8:35 am - 8:55 am	<b>Side Effects of New Immuno-Modulators, Ore-ofe Oluwaseun Adesina, MD</b>
8:55 am - 9:00 am	<b>Q &amp; A</b>
9:00 am - 9:20 am	<b>Side Effects of Drugs Used for Multiple Sclerosis, Heather E. Moss, MD, PhD</b>
9:20 am - 9:25 am	<b>Q &amp; A</b>
9:25 am - 9:30 am	<b>Closing Remarks, Rod Foroozan, MD and Judith E. A. Warner, MD</b>

<b>9:30 am - 10:00 am</b>	<b>Coffee Break</b>	<b>Thurgood Marshall Foyer</b>
<b>10:00 am - 12:00 pm</b>	<b>Eye Movement Challenge: The Advanced Level [2 CME]</b> <i>Moderators: Jason S. Barton, MD, PhD, FRCPC and William A. Fletcher, MD, FRCPC</i> <i>Panelists: David S. Zee, MD, Caroline Tilikete, MD, PhD, and Michael C. Brodsky, MD</i>	<b>Thurgood Marshall Ballroom</b>

This symposium will use a case-based format rather than didactic lectures. There will be two 50-minute sessions, each comprising several brief case presentations of unusual eye movements. For each case, a panelist will present a short history and video, followed by questions for the audience. The other panelists may comment briefly on the salient clinical features. The presenting panelist will conclude with the diagnosis and a brief summary of the condition. At the end of each session there will be a 10-minute question period.

Upon completion of this course, participants should be able to: 1) Recognize and diagnose uncommon ocular motor disorders; 2) Localize uncommon oculomotor disorders; and 3) Describe the pathophysiology of uncommon oculomotor disorders.

## SOCIAL FUNCTIONS

### SATURDAY, APRIL 1

#### Opening Reception – Marriott Foyer

**6:00 pm - 7:30 pm**

Please join us for the Opening Reception at the Washington Marriott Wardman Park. All are welcome to attend the opening reception, which features complimentary cocktails and hors d'Oeuvres.

### SUNDAY, APRIL 2

#### Members-in-Training Program and Reception – Marriott Foyer

**5:30 pm - 6:30 pm**

New to Neuro-Ophthalmology? All students, residents and fellows-in-training are encouraged to attend!

### TUESDAY, APRIL 4

## Afternoon Excursions (20 person minimum per excursion required)

12:30 pm – 4:30 pm

All excursions depart from the Marriott entrance near Harry's Pub at 12:30 pm and include transportation, a boxed lunch, and admission (if applicable). Excursions return to the hotel at 4:30 pm.



### VIP TOUR OF THE UNITED STATES CAPITOL BUILDING - \$198/person

No building in the country exudes such an aura of power and drama as The United States Capitol! Guests will be able to enjoy a once in a lifetime opportunity when touring the building with a former member of Congress. Once inside guests will travel the ornately painted Brumidi Corridors until they reach Statuary Hall, which served as the House of Representatives' Chamber until 1857. Following Statuary Hall, guests will pass through the Rotunda for a closer look at its magnificent architecture and stunning murals depicting early America and its growth as a democracy. When congress is not in session, guests will have the rare opportunity to visit the House of Representatives chamber and sit in the Member's chairs on the "floor" of the House as they listen to more fascinating facts from the former member and our master tour guide.

**Recommended Attire:** Casual attire. Comfortable walking shoes.

**Prohibited Items:** Food, drinks, water bottles (even empty ones), liquids, aerosols, hand lotion, perfumes, Mace, lighters, matches, pocketknives, scissors, large bags/backpacks and nail files



### TOUR OF MOUNT VERNON ~ GEORGE WASHINGTON'S ESTATE - \$105/person

Mount Vernon was the plantation home of George Washington, first President of the United States and his wife, Martha Dandridge Custis Washington. The historic estate includes not only the Mount Vernon Mansion, George and Martha's home, but also a host of colonial era buildings, beautiful gardens, a working distillery and gristmill, and museum and interactive education center. Guests will tour the mansion and the surrounding service buildings, the interactive education center, and the Washington family museum, where personal effects of George and Martha are on display. Located 15 miles south of Washington, DC along the scenic Potomac River, Mount Vernon is a true national treasure guests will enjoy exploring.

**Recommended Attire:** Casual attire. Comfortable walking shoes that may get dirty. Umbrella or rain jacket. Sunglasses.



### SEGWAYS IN THE CITY - \$170/person

The Segway is the first of its kind—a self-balancing, personal transportation device that's designed to operate in any pedestrian environment. Your private tour will begin with luxury mini coach transportation to your tour start location. Upon arrival, guests will receive a thirty minute training session on the operation and safety of the Segway and will have ample time for practice. Then it's all aboard and off to the Smithsonian Castle along the National Mall, the U.S. Capitol Building, Washington Monument and World War II Memorial. The Vietnam Veterans Memorial (including the Three Servicemen and Nurses Memorial), the Lincoln Memorial, and the Korean War Memorial are also visited throughout the tour. Guests will enjoy this unique perspective along the National Mall!

**Recommended Attire:** Comfortable/athletic attire. Closed-toe, athletic sneakers or walking shoes. Sunglasses.

## WEDNESDAY, APRIL 5

### Annual NANOS Banquet and Reception

6:30 pm – 11:00 pm

Join colleagues for a fun, casual evening of socializing, dining and dancing at the NANOS Annual Banquet and Reception

which will be held in the Thurgood Marshall Ballroom at the Washington Marriott Wardman Park. Event is complimentary for attendees, but guests must purchase tickets for \$100 per person.



2018

44TH ANNUAL MEETING  
**NANOS**  
Hilton Waikoloa Village-Waikoloa Village,  
Hawaii, The Big Island

SAVE THE DATES

**March 3-8,  
2018**

Don't Miss It!