



NORTH AMERICAN NEURO-OPHTHALMOLOGY SOCIETY

PROGRAM OVERVIEW



48TH

ANNUAL MEETING

NANOS 2022

February 12-17 • JW Marriott Austin • Austin, TX



Visit www.nanosweb.org for more information

NANOS 48th Annual Meeting Program

Saturday, February 12th

8:00 am – 12:00 pm	NANOS Board of Directors Meeting	Brazos
2:00 pm – 7:30 pm	Registration/Help Desk	Lone Star Foyer
4:00 pm – 5:00 pm	Neuro-Radiology Symposium [1.0] <i>Manraj K.S. Heran, MD, FRCPC</i>	Lone Star DEFGH

This neuroradiology session is designed to provide participants with education and information regarding (1) the imaging appearance and evaluation of orbital vascular anomalies, and (2) discuss management strategies for a range of low- and high-flow malformations involving the orbit and cavernous sinus region.

Upon completion of this session, participants should be able to: (1) diagnose the common vascular anomalies affecting the orbit, as well as identify their key imaging features and (2) become familiar with the types of medications and image-guided interventional techniques used for treatment of these conditions.

6:00 pm – 9:30 pm	Welcome Reception and Line Dancing Lesson (with support from Viridian Therapeutics, Inc.)	Lone Star ABC
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All are welcome! Reconnect with your NANOS colleagues during the reception from 6:00 – 7:30 pm and then join us for a lesson in line dancing led by professionals. Heavy hors d'oeuvres provided at the reception.

Sunday, February 13th

6:30 am – 7:30 am	Breakfast	Griffin Hall
6:30 am – 5:30 pm	Registration/Help Desk	Lone Star Foyer
7:30 am – 9:30 am	Frank B. Walsh (I) [2.0]	Lone Star DEFGH

Host: University of British Columbia

Chair: Jason Barton, MD, PhD, FRCPC

Committee Members: Jean Y. Chuo, MD, Kristopher Kowal, MD, Anastasia Neufeld, MD, FRCSC, DABO, Claire Sheldon, MD, PhD, Sara Ann Simpson, MD, FRCPC, and Salina Teja, MD, FRCSC

Expert Panel:

Neuroradiologist: Manraj K.S. Heran, MD, FRCPC

Neuropathologist: Veronica Hirsch-Reinshagen, MD, PhD, FRCPC

This session is designed to present complex neuro-ophthalmic cases 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. Neuroimaging, laboratory and surgical pathology data will help illustrate clinical point. Cases will be discussed from clinical, anatomic, radiologic and pathologic aspects with emphasis on diagnosis, pathophysiology and management.

Upon completion of this session, 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) use radiologic procedures in diagnosis effectively, (4) recognize both the value and limitations of neuropathology, and (5) discuss newly described diseases and their connection.

Moderators: Kristopher Kowal, MD, Anastasia Neufeld, MD, FRCSC, DABO, Dane Breker, MD, and Sophia Chung, MD

7:30 am – 7:45 am	Welcome/Introduction	
7:45 am – 8:05 am	Hydrocephalus Appetizer, TED Entrée, Side of Bipolar Disease. Would You Like a Meatball With That? <i>Eric Caskey, MD</i>	
8:05 am – 8:25 am	Not Another IgG4 Case! <i>Anne R. Kao, MD</i>	
8:25 am – 8:45 am	Some Heads Are Harder Than Others, <i>Steven A. Newman, MD</i>	
8:45 am – 9:05 am	Is the Treatment Working? Yes, the Patient Is Getting Worse! <i>Walid Bouthour, MD</i>	
9:05 am – 9:25 am	WD-40: A Multi-Use Product, <i>Georgia Kaidonis, MD, PhD</i>	
9:25 am – 9:30 am	Wrap Up	
9:30 am – 10:00 am	Coffee Break	Griffin Hall
10:00 am – 11:45 am	Frank B. Walsh (II) [1.75]	Lone Star DEFGH
	<i>Moderators: Claire Sheldon, MD, PhD, Salina Teja, MD, FRCSC, Lynn K. Gordon, MD, PhD and Sangeeta Khanna, MD</i>	
10:00 am – 10:20 am	Just a Flu? <i>Lily "Tali" Okrent Smolar, MD</i>	
10:20 am – 10:40 am	All in the Family, <i>Homer Chiang, MD</i>	
10:40 am – 11:00 am	Waiting for That 'Bing' Moment to Get the Diagnosis, <i>Jenny L. Hepschke, MBBS, BSc(Med), DM</i>	
11:00 am – 11:20 am	Thinking Outside of the Lines, <i>Carleigh N. Bruce, MD</i>	
11:20 am – 11:40 am	Double Crossed, <i>Jeffrey Gluckstein, MD</i>	
11:40 am – 11:45 am	Morning Wrap-Up	
11:45 am – 12:30 pm	Lunch	Griffin Hall
12:00 pm – 1:00 pm	Fellowship Directors Committee Meeting	Brazos
12:30 pm – 2:30 pm	Meet the Poster Author: Descriptive Studies	Griffin Hall
12:30 pm – 1:30 pm	Odd Numbered Posters	
1:30 pm – 2:30 pm	Even Numbered Posters	
2:30 pm – 3:00 pm	Business Meeting	Lone Star DEFGH
3:00 pm – 5:15 pm	Frank B. Walsh (III) [2.25]	Lone Star DEFGH
	<i>Jean Y. Chuo, MD, Sara Ann Simpson, MD, FRCPC, and Peter Quiros, MD</i>	
3:00 pm – 3:20 pm	The Inconspicuous Cysts, <i>Lily Zhang, MD</i>	
3:20 pm – 3:40 pm	The Nidus of the Neuropathy, <i>Heather M. McDonald, BSc, MD</i>	
3:40 pm – 4:00 pm	A Nod to the Nodule, <i>Natalie Brossard, MD, MSc</i>	
4:00 pm – 4:20 pm	Pseudo-Pseudotumor Cerebri? <i>Etienne Benard-Seguin, MD, BSc</i>	
4:20 pm – 4:40 pm	An Apple a Day... <i>Joseph W. Fong, MD</i>	
4:40 pm – 5:00 pm	The Grey Area of White Matter, <i>Parker Bohm, MD</i>	
5:00 pm – 5:15 pm	Closing Remarks	

5:30 pm – 6:00 pm	Walsh Committee Meeting	Brazos
5:45 pm – 6:45 pm	Members-in-Training Reception	Lone Star ABC

(This reception is for Students, Residents, Fellows-in-Training, NANOS Board of Directors members, Fellowship Directors, Student Clerkship, and Neurology and Ophthalmology Residency Directors.)

Back this year! All fellowship directors with availability and applicants or potential applicants looking for a fellowship are invited to participate in fellowship “speed dating.” If you have a vacancy during these fellowship periods, please stop by.

6:00 pm – 6:15 pm	2022 – 2023 Fellowship Period
6:15 pm – 6:35 pm	2023 – 2024 Fellowship Period
6:35 pm – 6:45 pm	2024 – 2025 Fellowship Period

Monday, February 14th

6:00 am – 6:45 am	Yoga	301/302
6:30 am – 7:30 am	Breakfast with Exhibitors	Griffin Hall
6:30 am – 7:30 am	Breakfast with the Novices	Griffin Hall

Join us in the reserved YONO area at breakfast for table discussions led by senior members and/or YONOs to discuss topics relevant to aspiring or current YONOs.

6:30 am – 7:30 am	Choosing Neurology vs Ophthalmology and Building a Successful Application , <i>Melinda Y. Chang, MD and Stacy V. Smith, MD</i>
6:30 am – 7:30 am	Surgical Neuro-Ophthalmology , <i>Lauren Ditta, MD and Howard R. Krauss, MD, SM, BEEB</i>
6:30 am – 7:30 am	Clinical Neuro-Ophthalmology - Combining With Other Neuro Subspecialties , <i>Fiona Costello, MD and Kathleen Digre, MD</i>

6:30 am – 5:00 pm	Registration/Help Desk	Lone Star Foyer
6:30 am – 7:30 am	NOVEL/Editorial Board/Curriculum Committee Meeting	Brazos
7:30 am – 9:30 am	State of the Art in Neuro-Ophthalmic Disease [2.0] <i>Moderators: M. Tariq Bhatti, MD and Nailyn Rasool, MD</i>	Lone Star DEFGH

In the past several years, significant progress has been made in the understanding of the pathogenesis, clinical manifestations, and management of a variety of neuro-ophthalmic diseases. The goal of this session is to provide a review on the current status and new developments of five important disease processes: neurotrophic keratopathy, cerebrospinal fluid dynamics, multiple sclerosis, glaucoma and orbital inflammatory disease. Neurotrophic keratopathy can be vision threatening and, in some patients, calcitrant to standard therapy. The indications and surgical technique of corneal neurotization will be discussed. The exact etiopathogenesis of idiopathic intracranial hypertension remains unclear. However, recent research has suggested that the central nervous system lymphatic and glymphatic systems may

contribute to the development of elevated intracranial pressure. This complex issue will be presented with a focus on the current literature. The therapeutic armamentarium of multiple sclerosis continues to grow at an extraordinary and accelerated pace. New immunomodulating therapies will be reviewed, which provide physicians and patients alike with an unprecedented number of options. Glaucoma remains an enigma not only in terms of the cause but treatment. The diagnostic challenge of glaucomatous optic neuropathy mimicking other types of optic neuropathies will be discussed with an emphasis on clinical manifestations and a targeted evaluation. A wide variety of inflammatory conditions can affect the orbit. The diagnostic evaluation and treatment modalities of orbital inflammatory disease will be summarized.

Upon completion of this symposium, learners should be able to: (1) define the indications for corneal neurotization, (2) explain the role of the lymphatic and glymphatic system in cerebrospinal fluid dynamics, (3) identify new and important advancements in multiple sclerosis therapeutics, (4) differentiate glaucomatous from non-glaucomatous optic neuropathies, and (5) recognize the variety of different etiologies resulting in orbital inflammation.

7:30 am – 7:35 am	Introduction	
7:35 am – 7:55 am	Preserving and Re-innervating the Corneal Surface , <i>Kimberly Cockerham, MD</i>	
7:55 am – 8:15 am	CNS Lymphatics and Glymphatics and the Eye , <i>Esriel H. Killer, MD</i>	
8:15 am – 8:35 am	Advances in MS Therapy , <i>Bart K. Chwalisz, MD</i>	
8:35 am – 8:55 am	Glaucoma and the Neuro-Ophthalmologist: A Case-Based Approach , <i>Helen Danesh-Meyer, MD, PhD</i>	
8:55 am – 9:15 am	Inflammatory Orbital Disorders , <i>Nailyn Rasool, MD</i>	
9:15 am – 9:30 am	Q&A	
9:30 am – 10:00 am	Coffee with Exhibitors	Griffin Hall
10:00 am – 12:00 pm	Hot Topics! [2.0] <i>Moderators: Chantal Boisvert, OD, MD and Alex Fraser, MD</i>	Lone Star DEFGH

This symposium is designed to provide the audience with a practical, evidence-based discussion on how to manage important and emerging clinical scenarios, which are of specific and contemporary interest to the neuro-ophthalmic community. "Hot topics" will be presented by established experts and thought leaders for the respective conditions.

Upon completion of this symposium, learners should be able to: (1) recognize when a neuro-ophthalmic problem is related to COVID-19, (2) summarize the treatment of MOG-related disorders, (3) state when a myasthenia gravis patient should be referred for thymectomy and (4) recognize the utility of multimodal OCT in the diagnosis of optic disc drusen (ODD) and exclusion of mimics.

10:00 am – 10:20 am	Patient-Reported Outcome Measures in Neuro-Ophthalmic Clinical Research , <i>Lindsey De Lott, MD, MS</i>
10:20 am – 10:40 am	COVID-19: Where Are We? <i>Cristiano Oliveira, MD</i>
10:40 am – 11:00 am	Treatment of MOG-Related Disorders , <i>John J. Chen, MD, PhD</i>
11:00 am – 11:20 am	Myasthenia Gravis: Time for Thymectomy? <i>Judith Warner, MD</i>
11:20 am – 11:40 am	Mining for ODD Using Multimodal OCT , <i>Steffen Hamann, MD, PhD</i>

11:40 am – 12:00 pm	Q&A	
12:00 pm – 12:10 pm	NOVEL Update , <i>Kathleen Digre, MD</i>	Lone Star DEFGH
12:10 pm – 1:30 pm	Lunch Break	
12:20 pm – 1:20 pm	Real-World Experience With a Treatment for Thyroid Eye Disease (TED)* , <i>Madhura A. Tamhankar, MD</i>	Lone Star ABC
	*This lunch symposium is organized by Horizon Therapeutics plc.	

Learn about key clinical data and explore case studies of chronic TED and compressive optic neuropathy (CON) patients. This presentation is intended for U.S.-based healthcare professionals.

1:30 pm – 3:15 pm	Fostering Leadership and Mentorship in Neuro-Ophthalmology: Evolving Concepts from Medical School to Retirement [1.75]	Lone Star DEFGH
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The importance of leadership through mentorship impacts every aspect of one’s neuro-ophthalmology career. This symposium will focus on fostering mentorship cultures and leadership opportunities by: introducing the concepts of mentorship from a 360-degree perspective; discussing approaches to recruitment of trainees into our discipline; highlighting diverse early career paths; exploring continued leadership roles outside the clinical sphere; and reflecting on later career contributions. Come for stories, discussion, and advice for all career stages. Attendance welcomed by all!

Upon completion of this symposium, learners should be able to: (1) identify the common perceived barriers to hosting medical students in a neuro-ophthalmology clinic, (2) describe ways to minimize barriers to hosting medical students in a neuro-ophthalmology clinic, (3) enumerate different neuro-ophthalmologist practice models, and (4) describe revenue-generating activities outside the clinic that can be gratifying for the neuro-ophthalmologist.

1:30 pm – 1:35 pm	Introduction , <i>Kimberly Winges, MD</i>	
1:35 pm – 2:05 pm	How to Foster a Mentorship Culture <i>Moderators: Kimberly Winges, MD and Nailyn Rasool, MD</i> <i>Panelists: Sangeeta Khanna, MD, Susan Mollan, FRCOphth and Barbara Yates, MD</i>	
2:05 pm – 2:30 pm	How to Encourage Future Generations of Neuro-Ophthalmology Leaders Through the Medical Student and Resident Pipeline <i>Moderators: Kevin Lai, MD, and Collin McClelland, MD</i> <i>Panelists: Courtney E. Francis, MD, Nancy J. Newman, MD and Peter Quiros, MD</i>	
2:30 pm – 3:10 pm	Seeking New Opportunities to Train and Lead Throughout One’s Career <i>Moderators: Madhura Tamhankar, MD and Barbara Yates, MD</i> <i>Panelists: Gena Heidary, MD, PhD, Melissa W. Ko, FAAN, CPE, Nailyn Rasool, MD, and Valerie Purvin, MD</i>	
3:10 pm – 3:15 pm	Closing , <i>Kevin Lai, MD</i>	
3:30 pm – 4:45 pm	Challenging Cases for Surgical Neuro-Ophthalmologists [1.25]	Lone Star DEFGH

*Moderators: Ore-ofe Adesina, MD and Courtney E. Francis, MD
 Panelists: Lauren Ditta, MD, Valerie Elmaleh, MD, Howard R. Krauss, MD, SM, BEEE, Vivek Patel, MD, Roger Turbin, MD, FACS and Nicholas Volpe, MD*

This symposium has been created to highlight the surgical aspects of our field and to educate neuro-ophthalmologists and trainees through the presentation and discussion of complex surgical neuro-ophthalmic case scenarios.

Upon completion of this symposium, learners should be able to: (1) recognize when surgical intervention can or should be applied to the management of neuro-ophthalmic patients, (2) compare and contrast surgical options for patients with neuro-ophthalmic diagnoses amenable to surgical intervention, and (3) identify gaps in understanding of surgical interventions for neuro-ophthalmic patients and utilize the skills gained to apply to patient care.

5:00 pm – 7:00 pm	Scientific Platform Session I [2.0] <i>Moderators: Beau Bruce, MD, PhD and Caroline Froment, MD, PhD</i>	Lone Star DEFGH
5:00 pm – 5:15 pm	Modulation of the Neuro-Glia-Vascular Niche by Plasma From Patients With Nonarteritic Anterior Ischemic Optic Neuropathy, Yaping Joyce Liao, MD, PhD	
5:15 pm – 5:30 pm	Portable Vacuum Goggles Significantly Increase Optic Nerve Blood Flow in Human Glaucoma and NAION Eyes, Randy Kardon, MD, PhD	
5:30 pm – 5:45 pm	Do Retinal Microvascular Changes Improve TIA Risk Stratification Scores? ABCD2 vs. ABCDEye, Beau Bruce, MD, PhD	
5:45 pm – 6:00 pm	Magnitude and Evolution of Optic Nerve Head and Peripapillary Hyperemic Response Depends on Flicker Duration, Moe Aung, MD, PhD	
6:00 pm – 6:15 pm	Retinal Vessel Dynamics as a Surrogate Marker for Intracranial Pressure in Idiopathic Intracranial Hypertension, Elisabeth Wibroe, MD	
6:15 pm – 6:30 pm	Deep Learning Can Accurately Distinguish Between True Papilledema and Optic Disc Drusen on Fundus Photographs, Kanchalika Sathianvichitr, MD	
6:30 pm – 6:45 pm	A Prospective, Clinic-Based Evaluation of a Trained Deep-Learning System Reveals High Accuracy for Papilledema Detection, Raymond Najjar, PhD	
6:45 pm – 7:00 pm	Proton Nuclear Magnetic Resonance Spectroscopy Metabolomic Analysis in Idiopathic Intracranial Hypertension Identifies Insights Into Pathogenesis, Andreas Yiangou, MRCP	

Tuesday, February 15th

6:00 am – 6:45 am	Yoga	301/302
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6:30 am – 7:30 am	Breakfast with Exhibitors	Griffin Hall
6:30 am – 7:30 am	Breakfast with the Novices	Griffin Hall

Join us in the reserved YONO area at breakfast for table discussions led by senior members and/or YONOs to discuss topics relevant to aspiring or current YONOs.

6:30 am – 7:30 am	Negotiating/Interviewing for Jobs , <i>Kimberly Gokoffski, MD, PhD and Vivek Patel, MD</i>
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6:30 am – 7:30 am	Academic/Private Practice/Hybrid Models of Neuro-Ophthalmic Practice , <i>Patricia Johnston McNussen, MD and Valerie Purvin, MD</i>
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6:30 am – 12:00 pm	Registration/Help Desk	Lone Star Foyer
6:30 am – 7:30 am	JNO Editorial Board Meeting	Brazos
7:30 am – 9:30 am	Scientific Platform Session II [2.0] <i>Moderators: Melinda Y. Chang, MD and Marc Dinkin, MD</i>	Lone Star DEFGH

7:30 am – 7:45 am	Impact of Glucose on Mitochondrial Function in a Brain Slice Model of Headache Mechanisms , <i>Olivia Grech, MRes</i>
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7:45 am – 8:00 am	How Much Weight Loss is Required to Reduce Intracranial Pressure in Idiopathic Intracranial Hypertension? <i>Susan Mollan, MB ChB, FRCOphth</i>
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8:00 am – 8:15 am	A Randomized Controlled, Trial of the GLP-1 Receptor Agonist Exenatide in Idiopathic Intracranial Hypertension , <i>James Mitchell, MB, BS, MRCP</i>
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8:15 am – 8:30 am	Intra-Cranial Pressure in Idiopathic Intracranial Hypertension, Insights From Long-Term Telemetric Monitoring , <i>Alex Sinclair, MD, PhD</i>
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8:30 am – 8:45 am	A Randomized Prospective Trial Comparing Repository Corticotropin Injection and Intravenous Methylprednisolone in Acute Optic Neuritis , <i>Jeffrey Bennett, MD, PhD</i>
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8:45 am – 9:00 am	International Multicenter Retrospective Study on Maintenance Intravenous Immunoglobulin in Preventing Relapse in Adult MOG-Antibody-Associated Disease , <i>John J. Chen, MD, PhD</i>
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9:00 am – 9:15 am	Long-Term Efficacy of Satralizumab in Neuromyelitis Optica Dpectrum Disorder: Results from SAKuraSky and SAKuraStar , <i>Ingo Kleiter, MD</i>
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9:15 am – 9:30 am	Sustainability of Teprotumumab Efficacy in Thyroid Eye Disease , <i>Prem S. Subramanian, MD, PhD</i>
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9:30 am – 10:00 am	Coffee with Exhibitors (with support from GenSight Biologics)	Griffin Hall
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10:00 am – 12:00 pm	Scientific Platform Session III [2.0] <i>Moderators: Robert Avery, DO, MSCE and Stacy Pineles, MD</i>	Lone Star DEFGH
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10:00 am – 10:15 am	Prevalence of Choroidal Abnormalities and Lisch Nodules in
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	Children Meeting Clinical/ Molecular Diagnosis of NF1, <i>Mariana Flores Pimentel, MD, FICO</i>	
10:15 am – 10:30 am	Peripapillary Hyperreflective Ovoid Mass-like Structures (PHOMS) in a Child Cohort, <i>Lasse Malmqvist, MD, PhD</i>	
10:30 am – 10:45 am	Continuous Hypoxia Reduces Retinal Ganglion Cell Degeneration in a Mouse Model of Mitochondrial Optic Neuropathy, <i>Sidney Gospe, MD, PhD</i>	
10:45 am – 11:00 am	Genotype-Phenotype Correlations in Autosomal Dominant Optic Atrophy, <i>Joshua Harvey, MA, BM, BCh, FRCOphth</i>	
11:00 am – 11:15 am	REFLECT Trial: Efficacy and Safety of Bilateral Gene Therapy for Leber Hereditary Optic Neuropathy, <i>Nancy J. Newman, MD</i>	
11:15 am – 11:30 am	Retrograde Transport to Retinal Ganglion Cells: An Alternative Strategy for Gene Delivery in Optic Neuropathies, <i>Jonathan Horton, MD, PhD</i>	
11:30 am – 11:45 am	Electric Fields Direct Full-Length Optic Nerve Regeneration and Partial Restoration of Visual Function, <i>Micalla Peng, BS</i>	
11:45 am – 12:00 pm	Referral Patterns to Neuro-Ophthalmology for Presumptive Idiopathic Intracranial Hypertension (IIH) Based on Isolated Neuroimaging Findings, <i>Andre Aung, MD</i>	
12:00 pm – 12:10 pm	JNO Update, <i>Laura Balcer, MD, MSCE</i>	Lone Star DEFGH
12:10 pm – 6:00 pm	Afternoon free for activities	
12:25 pm – 1:25 pm	NMOSD: Differentiating New Advances in the Diagnostic and Treatment Armamentarium* <i>*This lunch symposium is organized by Vindico Medical Education with grant support from Genentech. NANOS is not the CME provider for this symposium.</i>	Lone Star ABC
<p>Upon completion of this symposium, learners should be able to: (1) summarize evidence-based criteria that aides in early detection and staging of neuromyelitis optica spectrum disorder (NMOSD), (2) differentiate the mechanisms of action of currently available NMOSD therapeutics to better understand how they can be utilized in individual patients, and (3) assess current evidence pertaining to the safety and efficacy of monoclonal antibodies used in the treatment of NMOSD, including their ability to control acute attacks and prevent future relapses.</p>		
12:25 pm – 12:30 pm	Introduction and Pre-Test, <i>Andrew G. Lee, MD</i>	
12:30 pm – 12:40 pm	NMOSD: A Diagnostic Dilemma, <i>Heather E. Moss, MD, PhD</i>	
12:40 pm – 1:00 pm	Differentiating Therapeutic Options for NMOSD: Applying Evidence to Practice, <i>John J. Chen, MD, PhD</i>	
1:00 pm – 1:10 pm	Panel Discussion with Case Presentation – Treatment of NMOSD	
1:10 pm – 1:25 pm	Post-Test and Q&A, <i>Andrew G. Lee, MD</i>	
3:30 pm – 5:35 pm	YONO Forum	Lone Star ABC
3:30 pm – 3:35 pm	Introduction, <i>Kevin Lai, MD</i>	
3:35 pm – 3:50 pm	Improving Your Professional Efficiency, <i>Andrew G. Lee, MD</i>	
3:50 pm – 4:05 pm	Roundtable Discussion: Improving Your Professional Efficiency	

4:05 pm – 4:20 pm	Building Professional Support Networks , <i>Prem S. Subramanian, MD, PhD and Valerie Biousse, MD</i>
4:20 pm – 4:35 pm	Roundtable Discussion: Building Professional Support Networks
4:35 pm – 4:50 pm	Maintaining Work/Life Balance , <i>Alfredo Sadun, MD</i>
4:50 pm – 5:05 pm	Roundtable Discussion: Maintaining Work/Life Balance
5:05 pm – 5:20 pm	Molding a Job You Love , <i>Nancy J. Newman, MD</i>
5:20 pm – 5:35 pm	Roundtable Discussion: Molding a Job You Love
5:35 pm	Conclusion

6:30 pm – 8:30 pm **Meet the Poster Author: Analytical Studies** Griffin Hall
(with support from Viridian Therapeutics, Inc.)

Heavy hors d'oeuvres buffet included. Guest must purchase tickets for \$150 per person online or onsite.

6:30 pm – 7:30 pm	Odd Numbered Posters
7:30 pm – 8:30 pm	Even Numbered Posters

8:30 pm – 9:30 pm **Abstract Committee Meeting** Brazos

Wednesday, February 16th

6:00 am – 6:45 am	Yoga	301/302
6:30 am – 7:30 am	Breakfast with Exhibitors	Griffin Hall
6:30 am – 7:30 am	Breakfast with the Novices	Griffin Hall

Join us in the reserved YONO area at breakfast for table discussions led by senior members and/or YONOs to discuss topics relevant to aspiring or current YONOs.

6:30 am – 7:30 am **Things I Wish I Knew Early in My Practice**, *Andrew Melson, MD*

6:30 am – 12:30 pm	Registration/Help Desk	Lone Star Foyer
6:30 am – 7:30 am	CME Committee Meeting	Brazos
6:45 am – 7:15 am	DEI Committee Meeting	205
7:30 am – 9:30 am	Mitochondrial Disorders: More Than the Optic Nerve [2.0]	Lone Star DEFGH

Moderators: Kimberly Gokoffski, MD, PhD and Patrick Yu-Wai-Man, MD, PhD

Defects in mitochondrial metabolism result in a heterogeneous group of genetic disorders characterized by marked variability in clinical presentation. Uncovering the underlying causative mutations is challenging, complicated by the fact that two sets of genomes, the nuclear and mitochondrial genomes, can contribute to disease pathogenesis. This session will provide a clinically oriented overview of the latest advances made in uncovering the genetic basis of mitochondrial disorders, their variable phenotypes, including both ocular and extraocular manifestations, and the emerging treatment options that are being evaluated.

Upon completion of this symposium, learners should be able to: (1) describe the common genetic defects underlying mitochondrial disease, (2) recognize the ocular and extraocular manifestations of mitochondrial disease, and (3) discuss current and emerging treatments for mitochondrial disease.

7:30 am – 7:50 am	Mitochondrial Optic Neuropathies – Expanding Genotypes and Phenotypes, Rustum Karanjia, MD, PhD	
7:50 am – 8:00 am	Q&A	
8:00 am – 8:20 am	Mitochondrial Genetics – From Genes to Disease Mechanisms, Valerio Carelli, MD, PhD	
8:20 am – 8:30 am	Q&A	
8:30 am – 8:50 am	Myopathies and Cerebral Dysfunction, Michio Hirano, MD	
8:50 am – 9:00 am	Q&A	
9:00 am – 9:20 am	Current Treatment Strategies and Future Prospects for Mitochondrial Disease, Nancy J. Newman, MD and Michio Hirano, MD	
9:20 am – 9:30 am	Q&A	
9:30 am – 10:00 am	Coffee with Exhibitors	Griffin Hall
10:00 am – 11:30 am	Does My Patient Need Surgery/A Procedure? Indications, Outcomes, and More! [1.5] <i>Moderators: Madhu Agarwal, MD and Valerie Elmaleh, MD</i>	Lone Star DEFGH

Everchanging interventions provide the opportunity to understand best options for patients in our current practice. This symposium is dedicated to exploring surgical treatment options for a variety of neuro-ophthalmic conditions including idiopathic intracranial hypertension, strabismus and orbital lesions. As interventions become more varied and complex, the neuro-ophthalmologist must review novel and current surgical strategies for these patients.

Upon completion of this symposium, learners should be able to: (1) demonstrate the utility of optic nerve sheath fenestration and shunting in idiopathic intracranial hypertension, (2) differentiate between various surgical approaches to the orbit, (3) assess various surgical strategies for strabismus in a case-based approach, and (4) analyze endovascular techniques in idiopathic intracranial hypertension.

10:00 am – 10:18 am	Nuts and Bolts of Shunts: What to Tell My Patient About Them, Tonya Stefko, MD	
10:18 am – 10:36 am	Orbital Surgery: Approaches and Outcomes, Howard R. Krauss, MD, SM, BEEB	
10:36 am – 10:54 am	Endovascular Treatments of Neuro-Ophthalmic Disorders, Marc Dinkin, MD	
10:54 am – 11:12 am	Advanced Strabismus for the Non-Surgeon	
11:12 am – 11:30 am	<i>Madhura Tamhankar, MD</i> Q&A	
11:30 am – 12:00 pm	Jacobson Lecture – The Power of Connection [0.5], Fiona Costello, MD	Lone Star DEFGH

The 2022 Dr. Daniel Jacobson Lecture presented by Dr. Fiona Costello will highlight how the visual system provides a model of central nervous system (CNS) inflammatory disorders, through which mechanisms of brain injury and repair may be better understood.

Upon completion of this symposium, learners should be able to: (1) discuss current challenges in distinguishing optic neuritis subtypes, (2) review the role of the visual system in capturing mechanisms of CNS injury, (3) highlight future directions in developing visual biomarkers in multiple sclerosis and related disorders, and (4) describe the power of connection, from the inception of an idea to a worldwide network.

12:00 pm – 1:30 pm	Research Committee Meeting	Brazos
1:00 pm – 2:30 pm	WIN Forum – Our Time is Now	Lone Star ABC

We welcome all attendees to our WIN forum where we will focus on our WIN member accomplishments and highlight Dr. Sangeeta Khanna's (2020 awardee) and Dr. Jane Bailey's (2021 awardee) Leadership Development Grant experience, now named the Dr. Ivy Dreizin Leadership Development Grant. We look forward to reconnecting with our friends and colleagues in a social networking activity and hosting games with prizes.

2:30 pm – 4:30 pm	Vestibular and Ocular Motor Skills Transfer [2.0] <i>Moderator: Dan Gold, DO</i> <i>Facilitators: Shannon Beres, MD, Anthony Brune, DO, Marc Dinkin, MD, Eric Eggenberger, DO, MSEpi, Caroline Froment, MD, PhD, Kemar Green, DO, Scott N. Grossman, MD, Nicholas E. F. Hać, MD, David E. Hale, MD, Jorge Kattah, MD, Mark Morrow, MD, Sashank Prasad, MD, and Veeral Shah, MD, PhD</i>	Lone Star DEFGH
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This symposium will provide a practical ocular motor/vestibular hands-on experience. With the help of roughly 18 NANOS members with expertise in the field, there will be 6 stations for the following: VOR testing, Positional Testing of Posterior Semicircular Canals, Positional Testing of Horizontal Semicircular Canals, Provocative Testing (nystagmus elicitation), Gaze Testing (ocular alignment, saccades, smooth ocular pursuit, and smooth eye-head tracking), and Nystagmus Interpretation.

Upon completion of this symposium, learners should be able to: (1) perform the HINTS exam (head impulse [VOR], nystagmus [naming and interpretation], test of skew [alignment]), (2) perform other ocular motor (saccades, pursuit, eye-head tracking) and provocative testing (head-shaking) to aid in localization, (3) apply the diagnostic Dix-Hallpike and supine roll positional maneuvers with proper technique, and (4) implement the most appropriate therapeutic maneuver.

4:45 pm – 5:45 pm	Consortium of Pediatric Neuro-Ophthalmologists (CPNO) All are welcome to attend! <i>Facilitators: Shannon Beres, MD and Gena Heidary, MD, PhD</i>	Brazos
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6:30 pm	Banquet	Lone Star DEFGH
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Put on your best Western attire and join us for a fun night of celebration! Dinner and awards from 6:30 - 8:00 pm. Music and dancing begin at 8:00 pm. Group line dancing performances are encouraged! We will also have a photo booth with props so you can take home a memento from the evening. Guest tickets are available for purchase at \$150 with online registration or onsite.

Thursday, February 17th

6:30 am – 12:00 pm	Registration/Help Desk	Lone Star Foyer
6:30 am – 7:30 am	Breakfast	Griffin Hall
7:30 am – 9:30 am	Functional Disorders and the Neuro-Ophthalmologist [2.0]	Lone Star DEFGH
	<i>Moderators: Norah Lincoff, MD and Meagan D. Seay, DO</i>	

This symposium will clarify the definition of functional neurologic disorder (FND) and explore how it may present to a neuro-ophthalmologist. FND, previously known as “conversion disorder”, can include a constellation of symptoms, including sensory symptoms, fatigue states, change in mental status, movement disorders, as well as seizure. It is a separate entity from malingering, in which patients knowingly feign symptomatic illness. Treatment of FND usually necessitates a multidisciplinary team approach of physicians in neurology, psychiatry, and physical therapists. We will review the condition, treatment recommendations, and the differential diagnosis of this complicated disorder.

Upon completion of this symposium, learners should be able to: (1) understand the etiology of FND and how it differs from malingering, (2) establish a broad differential diagnosis and ensure accuracy in making a diagnosis of FND, and (3) increase awareness of treatments for FND.

7:30 am – 8:00 am	Classification of Functional Disorders and Role of Modern Neuroimaging, Jeffrey P. Staab, MD, MS	
8:00 am – 8:22 am	Functional Visual Loss: Diagnosis, Pearls, and Pitfalls, Gregory Van Stavern, MD	
8:22 am – 8:45 am	Delusions, Hallucinations, and Functional Neurologic Disorders: What are the “Connections”? Victoria S. Pelak, MD	
8:45 am – 9:15 am	Treatments and Outcomes, Jeffrey P. Staab, MD, MS	
9:15 am – 9:30 am	Q&A	
9:30 am – 10:00 am	Coffee Break	Lone Star Foyer
10:00 am – 12:00 pm	Complex Cases in Pediatric Neuro-Ophthalmology: Avoiding Mimickers, Missteps, and Misdiagnosis [2.0]	Lone Star DEFGH
	<i>Moderators: Shannon Beres, MD and Gena Heidary, MD, PhD</i>	

This symposium will examine pitfalls in management and diagnosis to be avoided in pediatric neuro-ophthalmology through a case-based format. Eight clinical cases will be presented with a focus on arriving at the correct diagnosis and evidence based best practices with respect to treatment and management of pediatric neuro-ophthalmic disease.

Upon completion of this symposium, learners should be able to (1) recognize common errors in diagnosis in pediatric neuro-ophthalmic disease and (2) apply most up to date evidence towards best practices in treatment and management of pediatric neuro-ophthalmic disease.

10:00 am – 10:15 am	A Boy with Decreased Vision , <i>Paul H. Phillips, MD</i>
10:15 am – 10:30 am	The Child With Blurred Vision , <i>Allison Liu, MD, PhD</i>
10:30 am – 10:45 am	Visual Loss, Behavioral Changes, and Overlooking , <i>Michael Brodsky, MD</i>
10:45 am – 11:00 am	Papilledema, Papillitis, or Papillopathy? - Optic Disc Findings in a Child With Alstrom Syndrome , <i>Melinda Y. Chang, MD</i>
11:00 am – 11:15 am	A Berr to Manage , <i>Eric D. Gaier, MD, PhD</i>
11:15 am – 11:30 am	Doc, I Really Can't See! <i>Mays El Dairi, MD</i>
11:30 am – 11:45 am	True or Fake? We Can All Make a Mistake... <i>Steven F. Stasheff, MD, PhD</i>
11:45 am – 12:00 pm	Double Vision, Double Again , <i>Virender Sachdeva, MS, DNB</i>