

# PROGRAM OVERVIEW

2021

47<sup>TH</sup>

ANNUAL MEETING

# NANOS

VIRTUAL • FEBRUARY 20-23



NORTH AMERICAN NEURO-OPTHALMOLOGY SOCIETY

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North American Neuro-Ophthalmology Society

# 47th Annual Meeting

February 20-23, 2021

**All times listed in MST.**

## On-Demand

**1 hour**

**Neuro-Radiology Case Review: Challenge Yourself with the Imaging Ddx, Nancy Fischbein, MD**

This session is intended to be a supplemental case-based review of neuro-radiology pearls and pitfalls as they relate to imaging in neuro-ophthalmology. A particular focus of this session will be understanding the typical imaging sequences used in imaging of neuro-ophthalmological disorders, as well as gaining understanding of how certain newer imaging modalities (notably arterial spin label perfusion imaging) might be applied. As cases are presented, a focus will also be on working through an appropriate differential diagnosis and understanding why or why not a particular consideration in the differential diagnosis is a good fit.

Upon completion of this session, participants should be able to: (1) describe role of perfusion imaging in ophthalmology, (2) review physiology behind ASL perfusion imaging, and (3) utilize information from ASL perfusion in clinical decision-making.

## Saturday, February 20<sup>th</sup>

**All are encouraged to do yoga, view posters, on-demand content, and visit the exhibit hall at their leisure.**

**8:00 am – 8:04 am**

**Welcome and Introduction (Valerie Biousse, MD and Prem S. Subramanian, MD, PhD)**

**8:04 am – 9:15 am**

**Tele-Neuro-Ophthalmology: Updates and Future Implications**  
*Moderators: Melissa W. Ko, MD, FAAN, CPE and Kevin Lai, MD*

Telemedicine in neuro-ophthalmology has exponentially grown in adoption in the past year, largely due to the unprecedented changes to medical care necessitated by the COVID-19 pandemic. In this expert panel presentation with Q&A, we will review how telemedicine has impacted neuro-ophthalmology in the COVID era, reflect on the experiences of advantages and pitfalls of using telemedicine for the evaluation and management of neuro-ophthalmic disease, offer practical strategies and resources for the implementation of telemedicine, update attendees on billing and coding in telemedicine, and explore future applications of telemedicine in neuro-ophthalmic care.

Upon completion of this session, participants should be able to: (1) enumerate advantages and pitfalls to telemedicine in clinical practice, and (2) demonstrate clinical examination techniques in telemedicine,

and (3) envision practical methods of incorporating telemedicine into individual neuro-ophthalmology practice.

8:04 am – 8:16 am	<b>What Did We Learn From COVID-19? Tele-Neuro-Ophthalmology Adoption During A Pandemic, <i>Melissa W. Ko, MD, FAAN, CPE</i></b>
8:16 am – 8:26 am	<b>Telemedicine as a Practice Model, <i>Aubrey Gilbert, MD, PhD</i></b>
8:26 am – 8:40 am	<b>Practical Telemedicine: Tips for Video Visits, <i>Heather E. Moss, MD, PhD</i></b>
8:40 am – 8:52 am	<b>Practical Telemedicine: Validated Mobile Apps, <i>Linus Sun, MD, PhD</i></b>
8:52 am – 9:02am	<b>Coding Updates in Telemedicine Use, <i>Kevin Lai, MD</i></b>
9:02 am – 9:15 am	<b>Panel discussion / Q&amp;A session (LIVE with chat)</b>
<b>9:15 am – 9:30 am</b>	<b>Break</b>
<b>9:30 am – 11:20 am</b>	<b>Frank B. Walsh (I)</b>

Host: Stanford University- *Y. Joyce Liao, MD, PhD*  
Committee members: *Shannon Beres, MD and Heather E. Moss, MD, PhD*  
Neuro-radiologist: *Nancy Fischbein, MD*  
Neuro-pathologist: *Raymond Sobel, MD, PhD*

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 to neuro-ophthalmology.

<b>11:30 am – 11:40 am</b>	<b>Break</b>
<b>11:40 am – 1:30 pm</b>	<b>Frank B. Walsh (II)</b>
<b>1:45 pm – 2:15 pm</b>	<b>Walsh Committee Meeting</b>
<b>4:30 pm – 5:30 pm</b>	<b>Poster Chat Session I</b>
<b>5:30 pm – 6:00 pm</b>	<b>Business Meeting</b>
<b>6:00 pm – 7:00 pm</b>	<b>Virtual Welcome Reception</b>

## **Sunday, February 21<sup>st</sup>**

**All are encouraged to do yoga, view posters, on-demand content, and visit the exhibit hall at their leisure.**

<b>8:00 am – 10:00 am</b>	<b>Infectious Diseases in Neuro-Ophthalmology: It's Not Just COVID-19</b>
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*Moderators: Jeffrey Bennett, MD, PhD and Beau Bruce, MD, PhD*

A variety of infectious agents cause important neuro-ophthalmic disease. Some are old favorites, like syphilis, some are novel and emerging, like COVID-19, and some could even be used as weapons, like botulism. Infectious diseases are commonly on the differential diagnosis with inflammatory etiologies that are best treated with immunosuppressive agents, complicating potential management plans.

Upon completion of this session, participants should be able to: (1) describe the features of multiple neuro-ophthalmic diseases caused by infectious agents, (2) describe management strategies that involve the use of immunosuppressive agents in the setting of known or possible infectious disease, and (3) describe national surveillance and bioterrorism preparedness for botulism.

8:00 am – 8:23 am	<b>COVID-19 and the Eye and Brain, Marc Dinkin, MD</b>
8:23 am – 8:42 am	<b>Immunosuppressive Therapy in the Setting of Infectious Risk, Lindsey De Lott, MD, MS</b>
8:42 am – 9:01 am	<b>Infectious Optic Neuropathies: What Should I do Differently? Lynn Gordon, MD, PhD</b>
9:01 am – 9:20 am	<b>The Rise of Old Diseases: Syphilis and More, Guy Jirawuthiworavong, MD, MA</b>
9:20 am – 9:40 am	<b>Preparing for the Worst: Botulism - National Surveillance, Emergency Response, and Bioterrorism Preparedness, Beau Bruce, MD, PhD</b>
9:40 am – 10:00 am	<b>Q&amp;A</b>
<b>10:00 am – 10:15 am</b>	<b>Break</b>
<b>10:15 am – 12:15 pm</b>	<b>Journal Club: What You Need to Know Now!</b> <i>Moderators: Sophia Chung, MD and Kimberly Winges, MD</i>

Everchanging technology affords the continued opportunity to new approaches to evaluation, diagnosis, and treatment strategies. Furthermore, application of artificial intelligence (AI) on big data is one of the most influential revolutions in information technology. In this symposium, we will review current applications of AI in neuro-ophthalmology, advances and diagnostic utility of OCTA, new diagnostic techniques for optic disc drusen, and conclude with novel and current management of two critically important neuro-ophthalmic conditions, NMO and IIH.

Upon completion of this session, participants should be able to: (1) define AI in neuro-ophthalmology, current use, and future impact to create algorithms and make clinical decisions from individual practices to global medicine, (2) discuss clinical applications of OCTA in neuro-ophthalmology, (3) Identify new advances in the diagnosis of optic disc drusen, (4) describe new immunotherapies in NMO, and (5) summarize and evaluate new medical and surgical treatments in IIH.

10:15 am – 10:30 am	<b>AI in Neuro-Ophthalmology: What the Future Holds, Dan Milea, MD, PhD</b>
10:30 am – 10:45 am	<b>OCTA: What Can it Tell Me and How to Use It, Anthony Arnold, MD</b>
10:45 am – 11:00 am	<b>Optic Disc Drusen: Insights on Diagnosis, Clare Fraser, FRANZCO</b>
11:00 am – 11:08 am	Platform talk 1

11:08 am – 11:16 am	Platform talk 2
11:16 am – 11:24 am	Platform talk 3
11:24 am – 11:39 am	<b>Newest Immunotherapies in NMO: Which One to Choose?</b> <i>Jeffrey Bennett, MD, PhD</i>
11:39 am – 11:54 am	<b>Treatment of Intracranial Hypertension: New Options or Not?</b> <i>Julie Falardeau, MD</i>
11:54 am – 12:15 pm	<b>Q&amp;A</b>

<b>1:00 pm – 2:00 pm</b>	<b>Poster Chat Session II</b>
<b>2:00 pm – 2:50 pm</b>	<b>Industry Sponsored Symposium</b>
<b>3:30 pm – 4:30 pm</b>	<b>Fellowship Directors Meeting</b>
<b>6:00 pm – 7:00 pm</b>	<b>Virtual Wine Tasting with Chat</b>

## Monday, February 22<sup>nd</sup>

**All are encouraged to do yoga, view posters, on-demand content, and visit the exhibit hall at their leisure.**

<b>7:30 am – 8:30 am</b>	<b>Poster Chat Session III</b>
<b>8:30 am – 10:00 am</b>	<b>Scientific Platform Session I</b>
<b>10:00 am – 10:15 am</b>	<b>Break</b>
<b>10:15 am – 12:15 pm</b>	<b>TBI and the Neuro-Ophthalmologist</b> <i>Moderators: Laura Balcer, MD, MSCE and Courtney Francis, MD</i>

This session will demonstrate for the neuro-ophthalmologist mechanisms underlying traumatic brain injury (TBI), enumerate the afferent and efferent visual signs and symptoms, and impart knowledge regarding the characteristics of dizziness in the TBI setting. The roles for rehabilitation techniques will also be addressed, as will potential medicolegal issues associated with this condition.

Upon completion of this session, participants should be able to: (1) utilize increased knowledge of the most common afferent and efferent neuro-ophthalmologic signs and symptoms of TBI, (2) use history and examination skills to capture symptoms and signs associated with dizziness in TBI, and (3) demonstrate improved awareness and use of rehabilitation techniques for treatment of neuro-ophthalmologic signs and symptoms of TBI.

10:15 am -10:45 am	<b>Mechanism, Diagnosis and Classification of TBI, James Kelly, MD</b>
10:45 am – 10:58 am	<b>Afferent Symptoms and Signs, Randy Kardon, MD, PhD</b>
10:58 am – 11:11 am	<b>Efferent Symptoms and Signs, Janet Rucker, MD</b>
11:11 am – 11:27 am	<b>Dizziness and TBI: What's the Connection? Daniel Gold, DO</b>
11:27 am – 11:47 am	<b>TBI Rehabilitation, James Kelly, MD</b>
11:47 am – 12:00 pm	<b>Medicolegal Issues in TBI, Craig Smith, MD</b>
12:00 pm – 12:15 pm	<b>Q&amp;A</b>
<b>12:15 pm – 12:45 pm</b>	<b>Break</b>
<b>12:45 pm – 2:15 pm</b>	<b>Scientific Platform Session II</b>
<b>2:15 pm – 2:30 pm</b>	<b>Break</b>

**2:30 pm – 3:30 pm**                      **NANOS Talent Show**  
**5:00 pm – 7:00 pm**                      **WIN/YONO Hangout**

5:00 pm – 5:30 pm                      WIN  
5:30 pm – 6:00 pm                      YONO  
6:00 pm – 7:00 pm                      Social Hour

**7:00 pm – 8:00 pm**                      **Abstract Committee Meeting**

## **Tuesday, February 23<sup>rd</sup>**

**All are encouraged to do yoga, view posters, on-demand content, and visit the exhibit hall at their leisure.**

**8:00 am – 10:00 am**                      **Cognitive Disorders and Vision**  
*Moderators: Victoria S. Pelak, MD and Sashank Prasad, MD*

Cognitive visual disorders result from some of the most common diseases of aging that we encounter, including cerebrovascular and neurodegenerative diseases. This session will review the classification of higher order visual processing, pertinent visual features for common neurodegenerative diseases (i.e. Alzheimer’s disease, Parkinson’s disease, and Lewy Body Dementia), advances that have been made in neuroimaging related to cognitive visual dysfunction, and the future of ophthalmic imaging as a biomarker for diseases impacting visual cognition.

Upon completion of this session, participants should be able to: (1) identify and list higher order visual processing disorders, their associated clinical anatomy and the differential diagnosis, (2) understand available imaging tools to aid in the diagnosis of visual cognitive dysfunction, and (3) provide treatment strategies and management recommendations for visual cognitive dysfunction, specifically acquired disorders for reading.

8:00 am – 8:30 am                      **AD, PCA, PD, FTD: Distinguishing Visual Features, Victoria S. Pelak, MD**

8:20 am – 8:50 am                      **Classifying Disorders of Higher-Order Visual Processing, Jason Barton, MD, PhD, FRCPC**

8:50 am – 9:10 am                      **Advances in Neuroimaging: New Diagnostic Clues? Sashank Prasad, MD**

9:10 am – 9:30 am                      **Use of Ophthalmic Imaging as a Biomarker, Hong Jiang, MD, PhD**

9:30 am – 9:45 am                      **Treating form, time and space: e-therapies for acquired disorders of reading, Alexander Leff, MBBS, PhD, FRCP**

9:45 am – 10:00 am                      **Q&A**

**10:00 am – 10:30 am**                      **Break**  
**10:30 am – 12:00 pm**                      **Controversies in Pediatric Neuro-Ophthalmology**  
*Moderators: Grant Liu, MD and Paul H. Phillips, MD*

The management of pediatric neuro-ophthalmologic patients is often controversial. As many pediatric neuro-ophthalmologic conditions are uncommon, sufficient data is often unavailable to provide definitive evidence-based guidelines for diagnostic evaluation and treatment. This symposium will review controversies regarding the management of various pediatric neuro-ophthalmologic entities including papilledema, optic neuritis, vigabatrin toxicity, optic pathway gliomas, and infantile nystagmus syndrome.

Upon completion of this session, participants should be able to: (1) understand which tests are required for the diagnosis of various pediatric neuro-ophthalmologic entities, (2) understand the interpretation of tests that are required for the diagnosis of various pediatric neuro-ophthalmologic entities, and (3) understand the limitations of tests that are required for the diagnosis of various pediatric neuro-ophthalmologic entities.

10:30 am – 10:48 am	<p><b>Monitoring Children on Vigabatrin - ERG versus No ERG with Clinical Follow-Up</b>  <b>ERG Beneficial</b>, <i>Steven F. Stasheff, MD, PhD</i>  <b>ERG Not Beneficial</b>, <i>Michael Wan, MD, FRCSC</i>  <b>Q&amp;A (live)</b></p>
10:48 am – 11:06 am	<p><b>Work-Up of Children with Isolated Optic Neuritis – MOG/NMO/LP On All, or Some</b>  <b>Focused Work-Up</b>, <i>Jason Peragallo, MD</i>  <b>Extensive Work-Up</b>, <i>Jennifer Graves, MD, PhD, MAS</i>  <b>Q&amp;A (live)</b></p>
11:06 am – 11:24am	<p><b>Evaluation of Child with Full Optic Disc - Role of Imaging in Distinguishing Pseudopapilledema versus Real Papilledema – (Role of Ultrasound, OCT, FA)</b>  <b>OCT is Useful/Primary</b>, <i>Mays El-Dairi, MD</i>  <b>OCT is Not Useful (Try Something Else)</b>, <i>Stacy Pineles, MD</i>  <b>Q&amp;A (live)</b></p>
11:24 am – 11:42 am	<p><b>Evaluation for Optic Pathway Glioma</b>  <b>OCT Should Guide Clinical Decision Making</b>, <i>Shannon Beres, MD</i>  <b>OCT Does Not Guide Clinical Decision Making</b>, <i>Robert Avery, DO, MSCE</i>  <b>Q&amp;A (live)</b></p>
11:42 am – 12:00 pm	<p><b>Diagnostic Work-Up of a Child with Nystagmus - ERG? Image? Genetic Testing? Genetic Testing Before or After ERG? Work-Up for Underlying Etiology Which May Include ERG and Genetic Testing</b>, <i>Gena Heidary, MD, PhD</i>  <b>Observe Without Further Work-up If Otherwise Neurologically Normal</b>, <i>Mark Borchert, MD</i>  <b>Q&amp;A (live)</b></p>
1:00 pm – 2:00 pm	<p><b>Poster Chat Session IV</b>  <b>Industry Sponsored Symposium</b>  <b>CME Committee Meeting</b>  <b>Consortium of Pediatric Neuro-Ophthalmologists Meeting (CPNO)</b>  All are welcome to attend.  <i>Facilitators: Shannon Beres, MD and Gena Heidary, MD, PhD</i></p>
2:00 pm – 3:00 pm	
3:00 pm – 4:00 pm	
4:00 pm – 5:00 pm	

**6:00 pm – 7:00 pm**

**Awards ceremony**

**Additional On-Demand Content**

**NOVEL Update**, *Kathleen Digre, MD*

**JNO Update**, *Laura Balcer, MD, MSCE*

**Morning Yoga**, *Peter Quiros, MD*