



36TH ANNUAL NANOS MEETING

MARCH 6 – 11, 2010

JW STARR PASS MARRIOTT RESORT & SPA | Tucson, AZ



ADVANCE PROGRAM

DETAILED PROGRAM AND SYMPOSIUM DESCRIPTIONS

Saturday, March 6

12:00 p.m. – 5:00 p.m. Board Meeting
2:00 p.m. – 8:30 p.m. Registration
5:00 p.m. – 7:00 p.m. NORDIC Reception
7:00 p.m. – 8:30 p.m. Opening Reception (all are welcome)

LOCATION

San Pedro 2
Arizona Ballroom Foyer
San Pedro 1
Ania Terrace

Sunday, March 7

6:30 a.m. – 5:30 p.m. Registration
6:30 a.m. – 7:45 a.m. Continental Breakfast
6:30 a.m. – 12:30 p.m. Exhibit Hall Open
8:30 a.m. – 10:30 a.m. Spouse/Guest Hospitality Suite

Arizona Ballroom Foyer
Arizona Salon 7
Arizona Salon 7
Signature Grill

7:45 a.m. – 5:00 p.m. FRANK B. WALSH SESSION [6.75 CME]
Chair: Brian R. Younge, MD
Neuropathologist: Caterina Giannini, MD, PhD
Neuroradiologist: Patrick H. Luetmer, MD

Arizona Salons 1-6

5:15 p.m. – 5:45 p.m. Frank B. Walsh Committee Meeting
5:15 p.m. – 6:15 p.m. Professional Standards Committee Meeting
5:30 p.m. – 6:30 p.m. Resident/Student Program and Reception
6:30 p.m. – 8:00 p.m. JNO Editorial Dinner
Evening Dinner on your own

San Ignacio
San Xavier
Arizona Salons 10-12
Signature Grill



2010 SCIENTIFIC PROGRAM COMMITTEE

Preston C. Calvert, MD (Chair and Board Liaison)
Swaraj Bose, MD
Mark Borchert, MD
Wayne T. Cornblath, MD
Janine L. Johnston, MD, FRCP(C)
Michael S. Lee, MD
Prem S. Subramanian, MD, PhD
Nicholas J. Volpe, MD
(Ivy J. Dreizin, MD - CME)

2010 ABSTRACT COMMITTEE

Swaraj Bose, MD (Chair)
Eric R. Eggenberger, DO (Vice Chair)
Marie D. Acierno, MD
Fiona Costello, MD, FRCP
Y. Joyce Liao, MD, PhD
Howard D. Pomeranz, MD, PhD
Alfredo A. Sadun, MD, PhD
Nicholas J. Volpe, MD
Agnes M.F. Wong, MD, PhD, FRCS(C)
(Deborah I. Friedman, MD)
Preston C. Calvert, MD (Board Liaison)

DETAILED PROGRAM AND SYMPOSIUM DESCRIPTIONS

Monday, March 8

6:30 a.m. – 12:30 p.m.	Registration	Arizona Ballroom Foyer
6:30 a.m. – 7:30 a.m.	Continental Breakfast	Arizona Salon 7
6:30 a.m. – 12:30 p.m.	Exhibit Hall Open	Arizona Salon 7
6:45 a.m. – 7:30 a.m.	International Relations Committee Meeting	Arizona Salon 12
8:30 a.m. – 10:30 a.m.	Spouse/Guest Hospitality Suite	Signature Grill
7:30 a.m. – 9:30 a.m.	MELANOPSIN SYMPOSIUM [2 CME]	Arizona Salons 1-6
	<i>Moderators: Randy Kardon, MD, PhD and Kenneth Shindler, MD, PhD</i>	

A distinct subpopulation of retinal ganglion cells that express the photopigment melanopsin have recently been described. Melanopsin is a unique opsin-like photopigment that has different properties than the opsin-based photopigments found in rod and cone photoreceptors. Melanopsin retinal ganglion cells can be induced to depolarize through intrinsic phototransduction mediated by melanopsin, or secondary to phototransduction in rods and cones. Melanopsin retinal ganglion cell axons project to non-image forming brain regions and have been implicated in non-visual light-mediated responses including the pupillary light reflex and control of circadian rhythms.

In this symposium, current understanding of the morphology and CNS projections of melanopsin retinal ganglion cells and the basic properties of this photopigment will be discussed. The role of these cells in mediating non-visual light responses and the implications of these functions in clinical evaluation of neuro-ophthalmologic problems will be stressed.

At the conclusion of the symposium, attendees should be able to: 1) Learn the basic properties of melanopsin retinal ganglion cells, including their intrinsic phototransduction, cellular morphology and projections to the CNS; 2) Understand the role of melanopsin retinal ganglion cells in mediating specific non-visual, light-mediated, physiologic pathways including the pupillary light reflex and circadian rhythms; and 3) Consider the clinical implications of melanopsin retinal ganglion cell pathophysiology in neuro-ophthalmologic disorders.

7:30 – 7:35 a.m.	Welcome and Overview - <i>Randy Kardon, MD, PhD</i>
7:35 – 7:50 a.m.	Anatomy/Morphology of Melanopsin Retinal Ganglion Cells (mRGC) in the Human Retina: Their Number and Connections to the Central Nervous System- <i>Alfredo A. Sadun, MD, PhD</i>
7:50 – 8:05 a.m.	Melanopsin Photopigment, Light Phototransduction Pathway, and Pigment Regeneration - <i>Kenneth S. Shindler, MD, PhD</i>
8:05 – 8:20 a.m.	Firing and Receptive Field Properties of Melanopsin Retinal Ganglion Cells - <i>Aki Kawasaki, MD</i>
8:20 – 8:35 a.m.	Melanopsin Retinal Ganglion Cells and Pupil Function in Retinal and Optic Nerve Disorders – <i>Randy Kardon, MD, PhD</i>
8:35 – 8:50 a.m.	Melanopsin Retinal Ganglion Cells and CNS Function - <i>Ivy Dreizin, MD</i>
8:50 – 9:05 a.m.	Photophobia and the Melanopsin Retinal Ganglion Cell: A Connection? - <i>Kathleen B. Digre, MD</i>
9:05 – 9:30 a.m.	Questions and Answers

9:30 a.m. – 10:00 a.m. Coffee Break

10:00 a.m. – 12:00 p.m.	CONTROVERSIES IN NEURO-OPHTHALMOLOGY [2 CME]	Arizona Salons 1-6
	<i>Moderators: Steven Galetta, MD and Luis Mejico, MD</i>	

The role of pharmacological testing of pupillary disorders in neuro-ophthalmic practice remains controversial. The first two speakers will provide the pathophysiological basis and the evidence for and against the need for pharmacological diagnostic testing. While much advancement has been made in the understanding of neuromyelitis optica in the last decade, questions remain about its existence as a distinct entity from multiple sclerosis. Such distinction becomes of utmost importance as more effective treatment options become available. The next two speakers will provide an update on the pathogenesis and treatment options for neuromyelitis optica.

DETAILED PROGRAM AND SYMPOSIUM DESCRIPTIONS

Monday, March 8 continued - Controversies

As understanding of genetics, pathophysiology, clinical awareness and specificity of diagnostic tests have increased in hereditary optic neuropathy, effective treatment options have lagged behind. The speakers will present the current status of treatment strategies for these disorders.

At the conclusion of this symposium, attendees will be able to describe the pros and cons, latest understanding, and controversies surrounding the following topics: 1) Discuss the pros and cons of pharmacological testing for pupil disorders; 2) Explain the controversy surrounding the disorder of neuromyelitis optica and its implications for treatment; and 3) Understand the potential treatment options for hereditary optic neuropathy.

10:00 a.m. – 10:35 a.m.	Pupil Disorders, is Pharmacological Testing Necessary? Evidence presentation <i>Randy Kardon, MD</i> Expert opinion & commentary <i>Jonathan Trobe, MD</i> Questions & Answers	
10:35 – 11:10 a.m.	Neuromyelitis Optica, is it a Distinct Entity From MS and What are the Treatment Implications? Evidence presentation <i>Jeffrey L. Bennett, MD, PhD</i> Expert opinion & commentary <i>Steven Galetta, MD</i> Questions & Answers	
11:10 – 11:45 a.m.	Hereditary Optic Neuropathy, is there a Treatment? Evidence presentation <i>Nancy Newman, MD</i> Expert opinion & commentary <i>Alfredo Sadun, MD</i> Questions & Answers	
11:45 a.m. – 12:00 p.m.	Platform Presentation	
12:15 p.m. – 2:00 p.m.	ICD-II Task Force Meeting	Arizona Salon 9
12:15 p.m. – 2:30 p.m.	Women in Neuro-Ophthalmology (WIN) Meeting	Arizona Salon 8
2:30 p.m. – 3:30 p.m.	Abstract Committee Meeting	Arizona Salon 12
1:00 p.m. – 3:00 p.m.	GETTING YOUR MANUSCRIPT PUBLISHED [2 CME] <i>Walter Jay, MD</i>	Tucson A-D

This workshop will be taught by the American Editor-in-Chief of Neuro-Ophthalmology, the International Journal of Neuro-Ophthalmology. It is particularly aimed at Residents, Fellows, and Assistant Professors. The workshop will provide a step by step approach for preparing a manuscript for submission. It will also explain the peer review process once the manuscript is submitted. Since most manuscripts require some degree of revisions after being peer reviewed, the workshop will discuss the process of preparing a revised manuscript. Finally, the workshop will discuss the proof stage once the manuscript is accepted. Participants are requested to bring their own manuscripts for discussion purposes.

At the conclusion of the symposium, the attendees should be able to: 1) Understand the process of preparing a manuscript for submission for publication; and 2) Explain the peer review process.

1:00 p.m. – 4:00 p.m.	NOVEL UPDATE <i>Nancy T. Lombardo, University of Utah, Spencer S. Eccles Health Sciences Library</i> <i>Jeanne Le Ber, University of Utah, Spencer S. Eccles Health Sciences Library</i>	Arizona Salons 1-6
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This session provides an update to NOVEL: the Neuro-Ophthalmology Virtual Education Library. Many enhancements have been made to the digital library, and new collections have been added. Specific collections, such as those of Shirley H. Wray, Robert B. Daroff, and Helmut Wilhem will be highlighted. Following the NOVEL update, free web-based online tools which can make member's lives easier will be presented. The tools covered will include the Doodle Poll and Scheduler, a free online tool that makes organizing meetings and getting feedback a snap. Other tools from the Google suite will be demonstrated, including Google Scholar, Desktop, Docs, Calendar and using YouTube to share video clips. A brief overview of methods for sharing EndNote libraries will be covered. NOVEL help and EndNote consultations will be available at the NOVEL table outside the main lecture hall throughout the meeting.

DETAILED PROGRAM AND SYMPOSIUM DESCRIPTIONS

Monday, March 8 continued

4:00 p.m. – 5:00 p.m. NOVEL Committee Meeting Arizona Salons 1-6

5:00 p.m. – 7:00 p.m. SCIENTIFIC PLATFORM PRESENTATIONS: SESSION I [2 CME] Arizona Salons 1-6

Tuesday, March 9

6:30 a.m. – 12:30 p.m. Registration Arizona Ballroom Foyer

6:30 a.m. – 7:30 a.m. Continental Breakfast Arizona Salon 7

6:30 a.m. – 7:30 a.m. JNO Editorial Meeting San Ignacio

6:30 a.m. – 12:30 p.m. Exhibit Hall Open Arizona Salon 7

6:45 a.m. – 7:30 a.m. Finance Committee Meeting Arizona Salon 12

8:30 a.m. – 10:30 a.m. Spouse/Guest Hospitality Suite Signature Grill

7:30 a.m. – 12:00 p.m. SCIENTIFIC PLATFORM PRESENTATIONS: SESSION II [3.75 CME] Arizona Salons 1-6

9:00 a.m. – 9:20 a.m. Update: The Journal of Neuro-Ophthalmology Arizona Salons 1-6
Lanning Kline, MD – Editor-in-Chief
Jason Roberts, PhD – Managing Editor

9:20 a.m. – 9:45 a.m. Coffee Break

6:00 p.m. – 10:00 p.m. POSTER SESSION [3.0 CME] Tucson Salons A-E
Presenter set up time Tuesday, March 9: 6:00 a.m. - 12:00 p.m.
Authors Present: Odd-Numbered Posters: 6:45 – 7:30 p.m.
Even-Numbered Posters: 7:30 – 8:15 p.m.

8:30 p.m. – 10:00 p.m. POSTER TOUR Arizona Salons 1-6

Wednesday, March 10

6:30 a.m. – 12:30 p.m. Registration Arizona Ballroom Foyer

7:00 a.m. – 7:30 a.m. Annual NANOS Business Meeting (all encouraged to attend) Arizona Salons 1-6

6:30 a.m. – 7:30 a.m. Continental Breakfast Arizona Salon 7

8:30 a.m. – 10:30 a.m. Spouse/Guest Hospitality Suite Signature Grill

7:30 a.m. – 11:35 a.m. **NEURO-OPHTHALMOLOGY OF CANCER [3.25 CME]** Arizona Salons 1-6
Moderators: Larry Frohman, MD and Mark Moster, MD

The full morning symposium will review and update knowledge concerning the neuro-ophthalmologic disorders related to systemic cancer. This session will include an update on the treatment of primary and metastatic CNS tumors. The neuro-ophthalmologic complications of stem cell and bone marrow transplantation will be described. There will be a discussion of the effects on the afferent visual system of radiation therapy, as well as a separate session on the disorders of eye movement that can result from radiotherapy. The neuro-ophthalmologic complications of the treatment of cancer with chemotherapeutic agents will be covered in detail. Paraneoplastic syndromes with neuro-ophthalmologic manifestations will be discussed, with separate treatment of those affecting the afferent visual system (retina and optic nerve, especially), and those effecting ocular motor structures.

At the conclusion of the symposium, the attendees should be able to: 1) Discuss the current treatment options for primary and secondary CNS malignancy; 2) Describe the major neuro-ophthalmologic complications of stem cell and bone marrow transplantation therapy; 3) Discuss the effects of radiotherapy on the retina and optic nerves; 4) Explain the complications of systemic chemotherapy involving visual function; and 5) Discuss the neuro-ophthalmologic manifestations of paraneoplastic syndromes.

DETAILED PROGRAM AND SYMPOSIUM DESCRIPTIONS

Wednesday, March 10 continued

7:30 a.m. – 7:35 a.m.	Introduction – <i>Larry Frohman, MD & Mark Moster, MD</i>	
7:35 a.m. – 8:25 a.m.	Update On Treatment of Primary and Secondary CNS Malignancy - <i>Amy Pruitt, MD</i>	
8:25 a.m. – 9:05 a.m.	Paraneoplastic Syndromes, Afferent, and ARRONS – <i>John Keltner, MD</i>	
9:05 a.m. – 9:25 a.m.	Paraneoplastic Syndromes, Efferent – <i>Shelley Cross, MD</i>	

9:25 a.m. – 9:50 a.m. Coffee Break

9:50 a.m. – 10:15 a.m.	Neurologic and N/O Complications of Stem Cell and Bone Marrow Transplantation - <i>Amy Pruitt, MD</i>	
10:15 a.m. – 10:35 a.m.	N-O Complications of Chemotherapy – <i>Rod Foroozan, MD</i>	
10:35 a.m. – 11:00 a.m.	N-O Complications of Radiation Therapy, Efferent – <i>Valerie Purvin, MD</i>	
11:00 a.m. – 11:35 a.m.	Discussion	

11:35 a.m. – 12:20 p.m. JACOBSON LECTURE [.75 CME]		Arizona Salons 1-6
<i>Deborah I. Friedman, MD, MPH</i>		
IIH with Dan, and Beyond		

12:30 p.m. – 4:00 p.m. PRACTICE MANAGEMENT SYMPOSIUM [3 CME]		Arizona Salons 1-6
<i>Pre-registration required: \$85 (Boxed lunch included)</i>		
How to Earn Money in the Post-Consult World - <i>Stephen M. Sadowski</i>		

12:20 p.m. - 1:15 p.m.	Young Neuro-Ophthalmologist Forum (Fellows entering Neuro-Op)	Arizona Salon 10
1:15 p.m. - 2:15 p.m.	Young Neuro-Ophthalmologist Forum (Young Faculty/New Attendings)	Arizona Salon 10

4:00 p.m. – 5:30 p.m. BOTULINUM TOXIN IN NEURO-OPHTHALMOLOGY [1.5 CME]		Arizona Salons 1-6
<i>Wayne Cornblath, MD</i>		

A review of the uses of botulinum toxin in neuro-ophthalmology including discussion of injection technique, dosage and billing for blepharospasm, hemifacial spasm, crocodile tears and headache.

At the conclusion of the symposium, the attendees should be able to: 1) Learn how to diagnosis blepharospasm and hemifacial spasm; 2) Review injection technique and patterns for BEB and HFS; 3) Review the use of botulinum toxin in treatment of headache; and 4) Review injection technique and pattern for headache treatment.

7:00 p.m. – 11:00 p.m. Annual NANOS Reception and Banquet		Pima Air and Space Museum
Buses depart from main lobby at 5:15 p.m. and 6:30 p.m.		

Thursday, March 11

6:30 a.m. – 12:30 p.m.	Registration	Arizona Ballroom Foyer
6:30 a.m. – 7:30 a.m.	Continental Breakfast	Arizona Salon 7
8:30 a.m. – 10:30 a.m.	Spouse/Guest Hospitality Suite	Signature Grill

7:30 a.m. - 9:30 a.m.	OCT IN NEURO-OPHTHALMOLOGY PRACTICE [2 CME]	Arizona Salons 1-6
<i>Moderators: Laura J. Balcer, MD, MSCE and Fiona Costello, MD</i>		

This half-morning symposium will review the current knowledge concerning the use of optical coherence tomography (OCT) in patients with neuro-ophthalmologic disorders. The session will discuss the history of OCT and the evolution of the underlying technology. The currently available and future equipment will be discussed and evaluated. The evidence regarding the use of OCT in the diagnosis and follow/up of optic neuritis, chiasmal lesions, multiple sclerosis and other neurologic diseases will be reviewed. A perspective on the clinical utilization of OCT drawing on experience from its place in glaucoma management will be presented. The potential of OCT for monitoring possible neuro-protective treatment of optic nerve and macular disease will be reviewed.

DETAILED PROGRAM AND SYMPOSIUM DESCRIPTIONS

Thursday, March 11 continued - OCT

At the conclusion of the symposium, the attendees should be able to: 1) Describe the principle of OCT and the forms of equipment available to perform the test; 2) Discuss the currently available evidence about the use of OCT in evaluating optic neuritis, MS, chiasmal lesions, and other neuro-ophthalmologic disorders; 3) Explain the lessons available from the use of OCT in management of glaucoma; and 4) Discuss the potential use of OCT in monitoring the effects of therapy of anterior visual pathway disease, including neuroprotective agents.

- 7:30 a.m. – 7:50 a.m. OCT Technologies: Past, Present, and What's New? - *Joel Schuman, MD*
7:50 a.m. – 8:10 a.m. Update on OCT in Neuro-Ophthalmology and Neurologic Disease - *Eric Eggenberger, DO, MSEpi*
8:10 a.m. – 8:30 a.m. Lessons from Glaucoma: Use of OCT in the Clinic and Trials - *Joel Schuman, MD*
8:30 a.m. – 8:50 a.m. Linking Axons and Neurons: Unveiling Mysteries of the Macula and Modeling Neuroprotection -
Randy Kardon, MD, PhD
8:50 a.m. – 9:05 a.m. Platform Presentation
9:05 a.m. – 9:20 a.m. Evidence Meets Practice: Take-Home Points on OCT - *Thomas Hedges, III, MD*
9:20 a.m. – 9:30 a.m. Questions and Discussion

9:30 a.m. – 10:00 a.m. Coffee Break

10:00 a.m. – 12:00 p.m. THYROID EYE DISEASE UPDATE [2 CME]

Arizona Salons 1-6

Moderators: Steven Feldon, MD and Madhu Agarwal, MD

This course will review the latest concepts in the evaluation and treatment of the often vexing disease process of thyroid orbitopathy. The immunology of the condition as well as potential new treatments and their indications will be discussed. Speakers will further discuss newer modalities for assessing disease progression, evaluating strabismus, and surgical and pharmacologic treatment options. A panel discussion will consider these topics, as well as the potential for clinical trial in this area.

At the conclusion of the symposium, the attendees should be able to: 1) Understand the latest diagnostic and assessment tools for thyroid eye disease; and 2) Discuss both medical and surgical treatment options.

- 10:00 a.m. – 10:30 a.m. Immunology of Thyroid Eye Disease: New Treatments on the Horizon? - *Raymond Douglas, MD, PhD*
10:30 a.m. – 10:50 a.m. Objective Markers for Thyroid Eye Disease (Ted) Activity, Severity and Progression –
Kim Cockerham, MD, FACS
10:50 a.m. – 11:20 a.m. Surgical Techniques for Anatomic Restoration - *Raymond Douglas, MD, PhD*
11:20 a.m. – 11:40 a.m. Ocular Motility in Thyroid Eye Disease – Evaluation and Surgery - *Steven Feldon, MD*
11:40 a.m. – 12:00 p.m. Panel Discussion: Impediments to Formulating a Meaningful Clinical Trial
12:00 p.m. Meeting adjourns

SOCIAL EVENTS

Opening Reception – Saturday, March 6 – 7:00 p.m. - 8:30 p.m.

Ania Terrace at the JW Starr Pass Marriott Resort & Spa. All are welcome to attend this opening reception, which features wine and cheese.

NANOS Annual Banquet – Wednesday, March 10 – 7:00 p.m. – 11:00 p.m.

Pima Air and Space Museum | 6000 East Valencia Road | Tucson, AZ 85756

Join your colleagues for a fun, casual evening of socializing, dining, and dancing with the Big Band Express. Aviator attire is encouraged. The first bus will depart the hotel at 5:15 p.m. and will include a one-hour guided tour of the Pima Air & Space Museum grounds. The second bus will depart at 6:30 p.m. for the banquet only. The first return bus will depart the museum at 8:30 p.m. *Guests and children are welcome. Event is complimentary for attendees, but guests must purchase tickets. Pre-registration is required to help us with attendance guarantees.*

DETAILED PROGRAM AND SYMPOSIUM DESCRIPTIONS

OPTIONAL TOURS AND FREE TIME ACTIVITIES

Gem Mining Tour

Explore the land mines that were first discovered by Europeans in search for gold and silver. This hands-on tour of an old mine will give you the opportunity to spend an afternoon learning about gems from Mr. Bill Gangi, one of Arizona's finest tour guides, and dig visible deposits of azurite, malachite, turquoise, and find many other surprises in the mine. Please remember to wear comfortable clothes, shoes, and bring a sack to take home your treasures! Guided tour includes: digging tools, transportation, a boxed lunch and beverages. A minimum number of 10 individuals are required for the tour.

Date: Monday, March 8, 2010

Time: 12:15 – 6:00 p.m.

Cost: \$122 per person

Registration Deadline: February 19, 2010

Optional Tours and Free Time Activities continued

Golf Outing

Spend an afternoon golfing in the NANOS tournament at the Starr Pass Marriott Golf Course, which is one of Arizona's premier desert courses. It offers stunning views of the city and surrounding mountain ranges. Accept the challenge posed by natural arroyos, dramatic elevation changes and swirling winds created by the Tucson Mountains, while enjoying the scenic beauty of true desert golf. Many golf legends such as Arnold Palmer, Phil Mickelson, Payne Stewart and Nancy Lopez have carved their way through this historic golf course. This scramble tournament includes 18 holes of golf, a cart, driving range balls, and prizes. Rental clubs are available for \$69 plus tax. Please email info@nanosweb.org to order rental clubs.

Date: Tuesday, March 9, 2010

Time: 12:30 – 5:00 p.m.

Cost: \$158 per person

Registration Deadline: February 19, 2010

Fun Run

Get out, get exercise, and explore the rural Tucson area by participating in a 2-mile Fun Run from the Starr Pass Marriott Resort to Anklam, which is a private, residential area. This trail offers spectacular desert and mountain views and allows you to take advantage of the fresh Arizona air! Beverages will be provided.

Date: Sunday, March 7, 2010

Time: 6:00 p.m.

Cost: FREE (pre-registration is required)

Registration Deadline: February 19, 2010

Jeep Tour

This is your chance to see the true beauty of the Southwest. You will be picked up in comfortable, shaded four-wheel drive vehicles by knowledgeable tour-guide drivers. Sightseeing will be absolutely breathtaking: giant saguaro cacti, many species of cholla and prickly pear cacti, mountain backdrops, and spectacular desert wildflowers. Visit an authentic petroglyph site with over 2000 petroglyphs. These are ancient images of the Native American cultures as they used to communicate from one tribe to another. Knowing the photo opportunities to be endless when venturing through these remote trails, bring your cameras and capture all the beauty of our desert playground! With the intimate structure of this exclusive 3-hour tour, your group will be safely returned to the hotel with memories and experiences to last a lifetime! Tour includes 3-hour tour with experienced guides, a boxed lunch, and refreshments.

Date: Tuesday, March 9, 2010

Time: 12:30 - 4:00 p.m.

Cost: \$105 per person, based on a minimum of 6 persons

Registration Deadline: February 19, 2010 – tour will be cancelled if minimum is not met.

DETAILED PROGRAM AND SYMPOSIUM DESCRIPTIONS

Starr Canyon “Lazy” River

The Starr Canyon River is the newest part of the JW Marriott Starr Pass Water Collection, you can enjoy the southern Arizona sun on Starr Canyon Plateau, take a lazy drift around Starr Canyon River or an exhilarating slide down the Monsoon Falls Water Slide. This is free to individuals staying at the JW Marriott Starr Pass.



VISITOR INFORMATION

For visitor information, please feel free to visit the following websites:

JW Starr Pass Marriott Resort & Spa Website: <http://www.jwmarriottstarrpass.com>

Metropolitan Tucson Convention and Visitors Bureau: <http://www.visittucson.org>

REGISTRATION INFORMATION

Early registration fee deadline is **February 19, 2010**. Pre-registration deadline is February 26, 2010. Registrations received after this date will be processed on-site at the registration desk. Please register online by visiting our website at <http://www.nanosweb.org/meetings/nanos2010>.

ON-SITE REGISTRATION HOURS: (located in Arizona Ballroom Foyer)

Saturday	2:00 p.m. – 8:30 p.m.
Sunday	6:30 a.m. – 5:30 p.m.
Monday - Thursday	6:30 a.m. – 12:30 p.m.

SPECIAL REQUIREMENTS: NANOS fully complies with the legal requirements of the Americans with Disabilities Act and the rules and regulations thereof. Please contact our conference planning department at info@nanosweb.org or at (952) 646-2037 to discuss your needs.

QUESTIONS: Contact the NANOS Executive Office at info@nanosweb.org or at (952) 646-2037.

HOTEL INFORMATION: Rooms have been reserved for NANOS meeting attendees at the JW Starr Pass Resort & Spa at the discounted rate of \$222.00 per night. This discounted rate is available until **February 11, 2010** or until the NANOS room block is filled. After this date, reservations and rates are subject to availability.

To make hotel reservations, please call the JW Starr Pass Marriott Resort & Spa at (888) 527-8989 and indicate the group code **neuneua** OR log on to <http://marriott.com/tussp?groupCode=neuneua&app=resvlink>.

TRANSPORTATION: A special rate of \$35 (one-way; up to 3 passengers) has been arranged with A1 Town Cars for transportation to/from the airport. Please make your reservation by sending an email to atowncars@yahoo.com or call (520) 203-2218 and mention NANOS. Please include your name, cell phone number, date & time of arrival, and airline with flight number. Your driver will meet you in baggage claim, assist you with your luggage, and drive you directly to the resort.

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 designates this educational activity for up to 33 hours in category I credit (re-add credits) towards the AMA Physicians Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity. **A CME verification form will be distributed during the meeting.**

FACULTY LISTING

Madhu Agarwal, MD
Loma Linda University
Loma Linda, CA

Laura Balcer, MD, MSCE
University of Pennsylvania, School
of Medicine
Philadelphia, PA

Jeffrey L. Bennett, MD, PhD
University of Colorado Denver
Aurora, CO

Gabrielle R. Bonhomme, MD
UPMC Eye Center, Eye and Ear Institute,
University of Pittsburgh Medical Center
Pittsburgh, PA

Michael C. Brodsky, MD
Mayo Clinic
Rochester, MN

Jane W. Chan, MD
University of Nevada School of Medicine
Reno, NV

Kimberly Cockerham, MD
University of California, San Francisco
San Francisco, CA

Wayne Cornblath, MD
W.K. Kellogg Eye Institute,
University of Michigan
Ann Arbor, MI

Fiona Costello, MD, FRCP
The University of Ottawa
Canada

Shelley Cross, MD
Mayo Clinic
Rochester, MN

Kathleen Digre, MD
John Moran Eye Center, University of Utah
Salt Lake City, UT

Raymond Douglas, MD, PhD
Jules Stein Eye Institute/UCLA
Los Angeles, CA

Ivy Dreizin, MD
University of Wisconsin Medical Foundation
Madison, WI

Eric Eggenberger, DO, MSEpi
Michigan State University
East Lansing, MI

Steven Feldon, MD
University of Rochester
Rochester, NY

Rod Foroozan, MD
Cullen Eye Institute,
Baylor College of Medicine
Houston, TX

Deborah I. Friedman, MD
University of Rochester
Rochester, NY

Larry Frohman, MD
New Jersey Medical School
Newark, NJ

Steven Galetta, MD
University of Pennsylvania
Philadelphia, PA

Caterina Giannini, MD, PhD
Mayo Clinic
Rochester, MN

Thomas R. Hedges, III, MD
New England Eye Center
Boston, MA

Walter Jay, MD
Loyola University Medical Center
Maywood, IL

Janine L. Johnston, MD, FRCP(C)
Thomson House
Winnipeg, MB, Canada

Randy Kardon, MD, PhD
University of Iowa, Hospitals & Clinics
Iowa City, IA

Aki Kawasaki, MD, MER
Hospital Ophtalmique Jules Gonin
Switzerland

John Keltner, MD
University of California Davis Medical Center
Sacramento, CA

Lanning B. Kline, MD
University of Alabama
Birmingham, AL

Jeanne Le Ber
University of Utah, Spencer S. Eccles Health
Sciences Library
Salt Lake City, UT

Jacqueline A. Leavitt, MD
Mayo Clinic
Rochester, MN

Michael S. Lee, MD
University of Minnesota
Minneapolis, MN

Nancy T. Lombardo
University of Utah, Spencer S. Eccles Health
Sciences Library
Salt Lake City, UT

Patrick H. Luetmer, MD
Mayo Clinic
Rochester, MN

Luis Mejico, MD
SUNY, Upstate Medical University
Syracuse, NY

Mark Moster, MD
Albert Einstein Medical Center,
Thomas Jefferson University
Elkins Park, PA

Nancy Newman, MD
Emory University School of Medicine
Atlanta, GA

Susan Pepin, MD
Dartmouth Hitchcock Medical Center/ Dartmouth
Medical School
Lebanon, NH

Amy Pruitt, MD
University of Pennsylvania
Philadelphia, PA

Valerie Purvin, MD
Midwest Eye Institute
Indianapolis, IN

Marian Rubinfeld, MD, PhD
Eye Care Associates-PA
Minneapolis, MN

Stephen M. Sadowski
ECG Management Consultants, Inc.
Boston, MA

Alfredo A. Sadun, MD, PhD
Doheny Eye Institute
Los Angeles, CA

Joel Schuman, MD
Eye and Ear Institute
Pittsburgh, PA

Kenneth Shindler, MD, PhD
Scheie Eye Institute,
University of Pennsylvania
Philadelphia, PA

Prem S. Subramanian, MD, PhD
Wilmer Eye Institute
Baltimore, MD

Jonathan Trobe, MD
University of Michigan
Ann Arbor, MI

Nicholas J. Volpe, MD
Scheie Eye Institute, University
of Pennsylvania
Philadelphia, PA

Agnes M. F. Wong, MD, PhD, FRCS(C)
University of Toronto,
The Hospital for Sick Children
Toronto, ON, Canada

Brian R. Younge, MD
Mayo Clinic
Rochester, MN