

7th Annual Meeting of the







# March 11-13, 2013

Charleston Place Hotel • Charleston, South Carolina

16.75 AMA PRA Category 1 Credit(s)™

# **Optional BOLD Functional MRI Hands-on Workshop**

6.5 AMA PRA Category 1 Credit(s)™

March 10, 2013

Workshop attendance is limited to the first 20 registrants.

## **About The Meeting**

The American Society of Functional Neuroradiology (ASFNR) is proud to present its 7th Annual Meeting. This 2  $\frac{1}{2}$  day meeting will feature a series of focused sessions with didactic lectures and panel discussions by nationally recognized experts, and original research in the form of oral and poster presentations.

A broad range of cutting-edge topics in functional neuroradiology, including BOLD functional brain mapping, diffusion, diffusion tensor, perfusion, permeability, susceptibility weighted imaging, PET, MRS and MEG imaging will be featured. Details on physical principles, techniques, as well as clinical applications of these state-of-the-art and emerging technologies will be discussed along with practical suggestions for implementation in a clinical practice setting. The scientific program will consist of lectures and panel discussions aimed at updating attendees on the current status of functional and physiologic imaging techniques, current controversies in the field, and promising new techniques. There will be two late afternoon study group sessions: Diffusion/Perfusion and BOLD fMRI. A review of cutting-edge special topics including resting state fMRI, neurogenomic imaging, and emerging functional techniques will also be presented.

On Sunday, March 10, 2013, there will be a half-day pre-meeting "Handson Workshop" for BOLD fMRI image processing. Attendance for the workshop is limited to the first 20 registrants.

## Target Audience

This CME activity is intended to educate neuroradiologists, neurosurgeons, neurologists, psychiatrists, neuropsychologists, cognitive neuroscientists, as well as fellows, residents, doctoral and post-doctoral students in these fields, and PET, CT and/or MR technologists.

## **Educational Objectives**

Attendees should, at the completion of this meeting, be able to:

- Describe the underlying physical basis of advanced functional and physiological imaging techniques such as BOLD and resting state fMRI, Diffusion-weighted Imaging, Diffusion Tensor Imaging, Dynamic Susceptibility and Dynamic Contrast-enhanced MRI, Arterial Spin Labeling, Susceptibility-weighted Imaging, MR Spectroscopy, PET and MEG Imaging.
- Explain the clinical applications and limitations of advanced functional and physiological imaging techniques.
- Discuss how to effectively integrate functional imaging techniques into clinical practice with awareness of pertinent economic and logistical issues.

No special educational preparation is required for this CME activity.

### Accreditation

**Physicians:** 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 the joint sponsorship of Educational Symposia and the American Society of Functional Neuroradiology. Educational Symposia is accredited by the ACCME to provide continuing medical education for physicians.

Educational Symposia designates this live activity for a maximum of  $16.75\,AMA\,PRA\,Category\,1\,Credit(s)^{TM}$ . Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Technologists:** This program has been submitted to the ASRT. The number of A CE credits will be available approximately 30 days prior to the meeting. Please visit <a href="http://asfnr.edusymp.com">http://asfnr.edusymp.com</a> or call 1-800-338-5901 regarding the availability of Category A CE credit.

## Registration Information

Payment of the registration fee includes all course materials, including a comprehensive course syllabus, welcome reception, daily continental breakfasts, and coffee breaks. Early registration is strongly suggested. There will be a \$50 surcharge for anyone registering after February 8, 2013.

Cancellations must be received in writing. A \$75 processing fee will be applied to all cancellations. Refunds requested in writing prior to February 9, 2013 will be issued for the amount of registration paid, less the \$75 processing fee. No refunds will be made on or after that date.

## Scientific Sponsor

Educational Symposia

#### Disclaimer

Educational Symposia (ESI) and the American Society of Functional Neuroradiology as planners and presenters of this meeting, and Professional Travel as the official travel agency for this meeting, claim no liability for the acts of any suppliers or the safety of any attendees while in transit to, from, or during this event or any optional activities. The total amount of liability, if any, for the meeting organizer is limited to a refund of the registration fee, and Professional Travel's responsibility is limited to that of an agent.

#### **Special Note for the Disabled**

Educational Symposia and the American Society of Functional Neuroradiology wish to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently from other individuals because of the absence of auxiliary aids and services. If you need any auxiliary aids or services identified in the Americans with Disabilities Act, please contact Educational Symposia's office at (800) 338-5901 or (813) 806-1000.



**REGISTER ON OUR SECURE WEBSITE!!** 

**MAIL** your meeting registration form, along with your credit card number and signature, or check payable to ASFNR, to:

## ASFNR

c/o Educational Symposia 5620 West Sligh Avenue Tampa, Florida 33634-4490

**FAX** your meeting registration form to: (800) 344-0668 (toll-free, U.S. & Canada) or (813) 806-1001 (direct). Please include your Master-Card, VISA, NOVUS/Discover Card or American Express information, including a signature.

PHONE (800) 338-5901 (toll-free, U.S. & Canada) or (813) 806-1000 (direct). Please have your MasterCard, VISA, NOVUS/Discover Card or American Express information available.

## Optional BOLD Functional MRI Hands-on Workshop • March 10, 2013

## **About This Workshop**

This workshop will provide a practical step-by-step post-processing of BOLD fMRI studies with SPM8 software and data presentation.

## **Target Audience**

This CME activity is intended to educate neuroradiologists, neuroradiology fellows, physicists, clinical psychologists and MR technologists. The workshop is intended for those with beginner to intermediate level fMRI experience.

## **Educational Objectives**

Attendees should, at the completion of this workshop, be able to perform the following:

- Preprocessing of BOLD fMRI Data
  - Realignment/Coregistration
  - Spatial Normalization
  - Smoothing
- Single Subject Analysis
  - Model Specification
  - Model Estimation
  - Visualization of the BOLD data

No special educational preparation is required for this CME activity.

### Accreditation

**Physicians:** 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 the joint sponsorship of Educational Symposia and the American Society of Functional Neuroradiology. Educational Symposia is accredited by the ACCME to provide continuing medical education for physicians.

Educational Symposia designates this live activity for a maximum of 6.5 *AMA PRA Category 1 Credit(s)*<sup>TM</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Technologists:** This program has been submitted to the ASRT. The number of A CE credits will be available approximately 30 days prior to the meeting. Please visit <a href="http://asfnr.edusymp.com">http://asfnr.edusymp.com</a> or call 1-800-338-5901 regarding the availability of Category A CE credit.

# Hardware/Software Requirements

Registrants are required to bring to the workshop their own laptop with a minimum 2G of RAM and 10G of hard disk space. The machines should have preloaded SPM8 and MATLAB software prior to the workshop. DICOM BOLD fMRI practice data sets will be available at the workshop. All registrants will be given instructions on downloading SPM8 and the 15-day free MATLAB license prior to the workshop.

### Faculty

#### Scott H. Faro, M.D.

Professor of Radiology, Electrical and Computer Engineering Vice Chair of Radiology Director of Neuroradiology, Functional Brain Imaging Center and Clinical MRI Temple University School of Medicine Philadelphia, PA

#### Feroze B. Mohamed, Ph.D.

Associate Professor of Radiology, Neuroscience, Electrical and Computer Engineering Associate Director of the Functional Brain Imaging Center Temple University School of Medicine Philadelphia, PA

#### Chris Conklin, M.S.E.

Ph.D. Graduate Student of Electrical Engineering Temple University Philadelphia, PA

#### Temple Functional Brain Imaging Center -BOLD Lab Personnel

#### Abin Bandyopadhyay, M.D.

Diagnostic Radiology Resident Department of Radiology Temple University Philadelphia, PA

#### Nilanjan Kayal, BTech., M.S.

Graduate Research Assistant MRI Lab Department of Radiology Temple University Hospital Philadelphia, PA

#### Devon Middleton, BS

Research Associate Department of Radiology Temple University Philadelphia, PA

#### Deepika Nandiraju, M.D.

Research Associate Department of Radiology Temple University Philadelphia, PA

### **Program**

#### Attendance is limited to the first 20 registrants.

9:00 – 10:00 AM	Registration			
10:00	Introduction to BOLD, Paradigm Design, and SPM Feroze B. Mohamed, Ph.D.			
11:00	Clinical Overview of Motor and Language Activation $Scott\ H.\ Faro,\ M.D.$			
12:00 – 12:15 PM	Boxed Lunch			
12:15	Practical Exercises on Sensory-Motor Data Processing Chris Conklin, M.S.E., Abin Bandyopadhyay, M.D., Nilanjan Kayal, BTech., M.S., Devon Middleton, BS, Feroze B. Mohamed, Ph.D., and Deepika Nandiraju, M.D.			
2:15 – 2:30	Coffee Break			
2:30	Practical Exercises on Language Data Processing and Review  Chris Conklin, M.S.E., Abin Bandyopadhyay, M.D.,  Nilanjan Kayal, BTech., M.S., Devon Middleton, BS,  Feroze B. Mohamed, Ph.D., and Deepika Nandiraju, M.D.			
4:30	Review SPM Processing with Question and Answer Session			
5:00	End of Workshop			

Faculty & topics subject to change.

# Program

#### **SUNDAY, MARCH 10, 2013**

9:00 - 10:00 AM Workshop Registration

10:00 AM - 5:00 PM Pre-Meeting Workshop

Hands-on Workshop on BOLD fMRI Post-Processing Using SPM Analysis

Scott H. Faro, M.D., Feroze B. Mohamed, Ph.D. and Chris Conklin, M.S.E.

(Attendance is limited to the first 20 registrants.)

12:00 – 5:00 Annual Meeting Registration

#### **MONDAY, MARCH 11, 2013**

7:00 – 8:20 AM Continental Breakfast for Registrants, Visit Exhibits and Scientific Posters

#### PHYSICS BASICS I

#### Moderator: Rafael Rojas, M.D.

7:15 BOLD fMRI Physics Feroze B. Mohamed, Ph.D.

7:35 DWI Physics
Aaron S. Field, M.D., Ph.D.

7:55 DSC Perfusion Physics Jerrold L. Boxerman, M.D., Ph.D.

8:15 Question and Answer Session Faculty

8:20 Welcome

Daniel P. Barboriak, M.D., ASFNR President

#### **BOLD/CORTICAL MAPPING**

Co-Moderators: Srinivasan Mukundan, Jr., M.D., Ph.D. and Michael J. Paldino, M.D.

8:30 Clinical Language fMRI: Dorsal and Ventral Language Pathways and Paradigms

\*\*Andrew J. Kalnin, M.D.\*\*

8:50 fMRI Data Quality Analysis: Techniques to Assess the Validity of Clinical fMRI Data

Kirk M. Welker, M.D.

9:05 Economics of BOLD fMRI: Getting Paid for fMRI Presurgical Mapping Cases

Scott H. Faro, M.D.

9:15 Question and Answer Session Faculty

9:20 fMRI for Memory: Problems and Solutions for Clinical Implementation

Mary Pat McAndrews, Ph.D.

9:40 fMRI Cerebrovascular Reactivity Mapping: Breath Hold fMRI to Assess Neurovascular Uncoupling Jay J. Pillai, M.D.

9:55 Question and Answer Session Faculty

10:00 fMRI for Coma and Other Altered States of Consciousness

Adrian Owen, M.D.

10:25 Question and Answer Session *Adrian Owen, M.D.* 

MONDAY, MARCH 11, 2013 (continued)

10:30 – 10:45 Coffee Break for Registrants, Visit Exhibits and Scientific Posters

10:45 Special Lecture: Functional Imaging of Cellular Therapy *Joseph A. Frank, M.D., MS* 

11:15 Victor M. Haughton, M.D. Honorary Lecture The State of Academic – Industry Partnerships A. Gregory Sorensen, M.D.

#### 12:15 PM End of Session

12:15 Pick up Lunch for "How-To" Session

12:30 – 1:30 Lunch "How-To" Session (not accredited for AMA PRA Category 1 Credit(s)™)

# FOCUS SESSION: BRINGING DTI INTO CLINICAL PRACTICE Moderator: Scott H. Faro, M.D.

1:30 Diffusion Tensor and Diffusion Kurtosis Imaging *Joseph A. Helpern, Ph.D.* 

2:00 Advanced Pediatric Spine Imaging Using DTI Scott H. Faro, M.D.

2:30 DTI in Traumatic Brain Injury *Pratik Mukherjee, M.D., Ph.D.* 

3:00 Panel Discussion – Is DTI Ready for Prime Time?

Scott H. Faro, M.D. Christopher G. Filippi, M.D. Michael L. Lipton, M.D., Ph.D. Feroze B. Mohamed, Ph.D. Pratik Mukherjee, M.D., Ph.D.

3:30 – 3:45 Coffee Break for Registrants, Visit Exhibits and Scientific Posters

# FUNCTIONAL IMAGING FOR INTRACRANIAL NEOPLASIA Moderator: Rajan Jain, M.D.

3:45 Animal Models of Brain Neoplasia: Implications for Advanced Imaging

Eric C. Holland, M.D., Ph.D.

4:10 PET and Diffusion Imaging for Brain Tumor Assessment Whitney B. Pope, M.D., Ph.D.

4:30 Question and Answer Session Faculty

4:35 Spectroscopy for Brain Tumor Assessment Eva-Marie Ratai, Ph.D.

4:50 DSC-MRI and DCE-MRI for Brain Tumor Assessment *Andrei I. Holodny, M.D.* 

5:10 Question and Answer Session Faculty

5:15 Closing Remarks
Daniel P. Barboriak, M.D., ASFNR President

5:20 End of Session

5:20 – 6:20 Study Group Meeting #1: Diffusion/Perfusion (not accredited for AMA PRA Category 1 Credit(s)™)

6:20 - 7:20 Welcome Reception

#### **TUESDAY, MARCH 12, 2013**

7:20 – 8:40 AM Continental Breakfast for Registrants, Visit Exhibits and Scientific Posters

8:10 – 8:40 ASFNR Annual Business Meeting (Members Only) (not accredited for *AMA PRA Category 1 Credit(s)*™)

8:40 Welcome

Daniel P. Barboriak, M.D., ASFNR Immediate Past President

# FUNCTIONAL IMAGING FOR HEAD AND NECK TUMORS Moderator: Yoshimi Anzai, M.D., MPH

8:50 Lessons of Clinical Trials for Advanced Imaging in Head and Neck Cancer

Laurie A. Loevner, M.D.

9:20 Advanced Imaging Techniques in Head and Neck Cancer

Ashok Srinivasan, M.D.

9:50 From the Vendors' Perspective (not accredited for AMA PRA Category 1 Credit(s)™)

10:30 – 10:45 Coffee Break for Registrants, Visit Exhibits and Scientific Posters

# FOCUS SESSION: IMAGING THE PENUMBRA Moderator: Chad A. Holder, M.D.

10:45 Imaging for Evaluation of Penumbra: The MGH Experience R. Gilberto Gonzalez, M.D., Ph.D.

11:10 The Penumbra: Clinical Trials Perspective Howard A. Rowley, M.D.

11:35 Advanced Imaging for Acute Stroke: Where Do We Go From Here?

Steven Warach, M.D., Ph.D.

12:00 PM Panel Discussion

R. Gilberto Gonzalez, M.D., Ph.D. Howard A. Rowley, M.D. Steven Warach, M.D., Ph.D.

12:15 End of Session

3:00

12:15 Pick up Lunch for "How-To" Session

12:30 – 1:30 Lunch "How-To" Session (not accredited for AMA PRA Category 1 Credit(s)™)

1:30 Special Lecture: Enabling Quantitative Imaging Daniel C. Sullivan, M.D.

# ADVANCED/RESTING STATE FUNCTIONAL MRI Moderator: Christopher D. Lascola, M.D., Ph.D.

2:00 Resting State Functional Connectivity Mapping: Basic Principles and Presurgical Application Haris Sair, M.D.

2:30 Advanced Resting State Analysis and Research Applications: PCA, ICA, Graph Theory Christopher T. Whitlow, M.D., Ph.D.

# EMERGING TECHNIQUES I: ASL, SWI, MEG Moderator: Christopher D. Lascola, M.D., Ph.D.

Arterial Spin Labeling: Theory and Applications Joseph A. Maldjian, M.D.

TUESDAY, MARCH 12, 2013 (continued)

3:30 – 3:45 Coffee Break for Registrants, Visit Exhibits and Scientific Posters

3:45 Special Lecture: White Matter Organization and the Connectome Project

Van J. Wedeen, M.D.

4:30 Oral Research Presentations (not accredited for AMA PRA Category 1 Credit(s)™)

Co-Moderators: Yueh Z. Lee, M.D., Ph.D. and

Timothy P.L. Roberts, Ph.D.

5:30 Closing Remarks

Daniel P. Barboriak, M.D., ASFNR Immediate Past President

5:35 End of Session

5:35 – 6:35 Study Group Meeting #2: BOLD fMRI (not accredited for AMA PRA Category 1 Credit(s)™)

#### **WEDNESDAY, MARCH 13, 2013**

7:00 – 8:20 AM Continental Breakfast for Registrants, Visit Exhibits and Scientific Posters

8:20 Welcome

Daniel P. Barboriak, M.D., ASFNR Immediate Past President

# FOCUS SESSION: NEUROGENOMIC IMAGING Moderator: Jonathan H. Burdette, M.D.

8:30 Genomics Methods

Cameron W. Brennan, M.D.

9:00 Imaging Genomics in Brain Tumors *Rivka R. Colen, M.D.* 

9:30 Genomics of White Matter Organization by DTI Paul Thompson, Ph.D.

10:00 – 10:15 Coffee Break for Registrants, Visit Exhibits and Scientific Posters

# EMERGING TECHNIQUES II: ASL, SWI, MEG Moderator: Deborah Zarnow, M.D.

10:15 Ultrafast MRI: Neuro Applications Meng Law, M.D., MBBS, FRACR

10:40 MEG: Update on Applications *Timothy P.L. Roberts, Ph.D.* 

11:05 T1 Rho: Neuro Applications *Christopher G. Filippi, M.D.* 

11:30 Quantitative SWI E. Mark Haacke, Ph.D.

11:55 Problem Solving Using Cerebrovascular Reserve Mapping: Case Review David J. Mikulis, M.D.

12:20 PM Closing Remarks

Daniel P. Barboriak, M.D., ASFNR Immediate Past President

12:25 End of Course

# **Faculty**

#### Yoshimi Anzai, M.D., MPH

Professor and Director, Neuroradiology Department of Radiology University of Washington Medical Center Seattle, WA

#### Daniel P. Barboriak, M.D.

Professor of Radiology Division of Neuroradiology Duke University Medical Center Durham, NC

#### Jerrold L. Boxerman, M.D., Ph.D.

Assistant Professor, Department of Diagnostic Imaging

Alpert Medical School of Brown University and Rhode Island Hospital

#### Cameron W. Brennan, M.D.

Assistant Attending, Department of Neurosurgery Assistant Member, Human Oncology & Pathogenesis Program Memorial Sloan-Kettering Cancer Center Assistant Professor of Neurosurgery Weill Medical College of Cornell University New York, NY

#### Jonathan H. Burdette, M.D.

Professor of Radiology Wake Forest Baptist Health Winston-Salem, NC

#### Rivka R. Colen, M.D.

Diagnostic Radiologist Department of Radiology MD Anderson Cancer Center Houston, TX

#### Scott H. Faro, M.D.

Professor of Radiology, Electrical and
Computer Engineering
Vice Chair of Radiology
Director of Neuroradiology, Functional Brain
Imaging Center and Clinical MRI
Temple University School of Medicine
Philadelphia, PA

#### Aaron S. Field, M.D., Ph.D.

Associate Professor of Radiology and Biomedical Engineering

Department of Radiology, Neuroradiology Division University of Wisconsin School of Medicine and Public Health Madison, WI

#### Christopher G. Filippi, M.D.

Professor of Radiology Section Chief Neuroradiology Columbia College of Physicians and Surgeons CUMC - New York Presbyterian New York, NY

#### Joseph A. Frank, M.D., MS

Chief, Frank Laboratory
Director, Imaging Sciences Training Program
Radiology and Imaging Sciences Clinical Center
Adjunct Senior Investigator, IRP
National Institutes of Biomedical Imaging
and Bioengineering

#### R. Gilberto Gonzalez, M.D., Ph.D.

Professor of Radiology Harvard Medical School Director of Neuroradiology Massachusetts General Hospital Boston, MA

#### E. Mark Haacke, Ph.D.

Director of MR Research Facility HUH-MR Research Wayne State University Detroit, MI

#### Joseph A. Helpern, Ph.D.

Vice Chairman for Research
Professor of Radiology & Neurosciences
CoEE Endowed Chair in Brain Imaging
Director, Center for Biomedical Imaging
Department of Radiology and Radiological Science
Medical University of South Carolina
Charleston, SC

#### Chad A. Holder, M.D.

Medical Director, Emory-Georgia Tech Biomedical Imaging Technology Center Assistant Professor, Department of Radiology and Imaging Sciences/Division of Neuroradiology Emory University School of Medicine Atlanta, GA

#### Eric C. Holland, M.D., Ph.D.

Director, Brain Tumor Center; Vice Chair, Translational Research, Department of Surgery; Emily Tow Jackson Chair in Oncology Memorial Sloan-Kettering Cancer Center

#### Andrei I. Holodny, M.D.

Chief of the Neuroradiology Service
Director of the Functional MRI Laboratory
Department of Radiology
Memorial Sloan-Kettering Cancer Center
Professor of Radiology
Weill Medical College of Cornell University
New York, NY

#### Rajan Jain, M.D.

Senior Staff, Department of Radiology and Department of Neurosurgery Henry Ford Health System Assistant Professor of Radiology, Wayne State University School of Medicine Detroit, MI

#### Andrew J. Kalnin, M.D.

Associate Professor Department of Radiology The Ohio State University College of Medicine Columbus, Ohio

#### Christopher D. Lascola, M.D., Ph.D.

Assistant Professor Radiology and Neurobiology Brain Imaging and Analysis Center Duke University Medical Center Durham, NC

#### Meng Law, M.D., MBBS, FRACR

Professor of Radiology, Neurology, Neurological Surgery and Biomedical Engineering Director of Neuroradiology Keck Medical Center and School of Medicine of USC Los Angeles, CA

#### Yueh Z. Lee, M.D., Ph.D.

Assistant Professor of Radiology The University of North Carolina at Chapel Hill

#### Michael L. Lipton, M.D., Ph.D.

Associate Director
Gruss Magnetic Resonance Research Center
Director of Radiology Research
Departments of Radiology, Psychiatry and
Behavioral Sciences and Neuroscience
Medical Director, Magnetic Resonance Services
Montefiore Medical Center
Albert Einstein College of Medicine
Bronx, New York

#### Laurie A. Loevner, M.D.

Professor of Radiology, Otorhinolaryngology:
Head and Neck Surgery, and Neurosurgery
Director of Head and Neck Imaging
Department of Radiology
Neuroradiology Division
Hospital of the University of Pennsylvania
Philadelphia, PA

#### Joseph A. Maldjian, M.D.

Professor and Chief of Neuroradiology
Vice Chair of Research, Department of Radiology
Director Advanced Neuroscience Imaging
Research Core (ANSIR)
Wake Forest University School of Medicine
Winston-Salem, NC

#### Mary Pat McAndrews, Ph.D.

Senior Scientist and Neuropsychologist Krembil Neuroscience Centre Toronto Western Research Institute & Hospital, University Health Network Toronto, Ontario Canada

#### David J. Mikulis, M.D.

Professor and Co-Director of Medical Imaging Research Department of Medical Imaging The University of Toronto The University Health Network The Toronto Western Hospital Toronto, Canada

# Faculty (continued)

#### Feroze B. Mohamed, Ph.D.

Associate Professor of Radiology, Neuroscience, Electrical and Computer Engineering Associate Director of the Functional Brain Imaging Center Temple University School of Medicine Philadelphia, PA

#### Pratik Mukherjee, M.D., Ph.D.

Associate Professor of Radiology and Bioengineering Attending Neuroradiologist University of California, San Francisco San Francisco, CA

#### Srinivasan Mukundan, Jr., M.D., Ph.D.

Associate Professor of Radiology Harvard Medical School Section Head of Neuroradiology Brigham and Women's Hospital Boston, MA

#### Adrian Owen, M.D.

Canada Excellence Research Chair Cognitive Neuroscience and Imaging Western University The Brain and Mind Institute Natural Sciences Centre London, Ontario, Canada

#### Michael J. Paldino, M.D.

Attending Neuroradiologist Texas Children's Hospital Assistant Professor Baylor College of Medicine Houston, TX

#### Jay J. Pillai, M.D.

Director of Functional MRI
Neuroradiology Division
The Russell H. Morgan Department of Radiology
and Radiological Science
Johns Hopkins University School of Medicine
Attending Neuroradiologist
The Johns Hopkins Hospital
Baltimore, MD

#### Whitney B. Pope, M.D., Ph.D.

Associate Professor of Radiology Section of Neuroradiology Director, Brain Tumor Imaging David Geffen School of Medicine at UCLA Los Angeles, CA

#### Eva-Marie Ratai, Ph.D.

Assistant Professor of Radiology, Harvard Medical School Massachusetts General Hospital, Department of Radiology Charlestown, MA

#### Timothy P.L. Roberts, Ph.D.

Professor of Radiology, Affiliated with the Perelman School of Medicine at the University of Pennsylvania Vice Chair of Research, Oberkircher Family Chair in Pediatric Radiology The Children's Hospital of Philadelphia Philadelphia, PA

#### Rafael Rojas, M.D.

Assistant Professor of Radiology Harvard Medical School Radiology Department, Neuroradiology Section Beth Israel Deaconess Medical Center Boston, MA

#### Howard A. Rowley, M.D.

Chief of Neuroradiology Joseph Sackett Professor of Radiology Professor of Radiology, Neurology and Neurosurgery University of Wisconsin Madison, WI

#### Haris Sair, M.D.

Assistant Professor
The Russell H. Morgan Department of
Radiology and Radiological Science
Division of Neuroradiology
The Johns Hopkins Hospital
Baltimore, MD

#### A. Gregory Sorensen, M.D.

President and CEO Siemens Healthcare North America

#### Ashok Srinivasan, M.D.

Associate Professor Director of Neuroradiology Department of Radiology University of Michigan Health System Ann Arbor, MI

#### Daniel C. Sullivan, M.D.

Professor & Vice Chair, Research Department of Radiology Duke University Medical Center Durham, NC

#### Paul Thompson, Ph.D.

Professor of Neurology & Psychiatry Imaging Genetics Center Lab of Neuro Imaging UCLA School of Medicine

#### Steven Warach, M.D., Ph.D.

Executive Director
Seton/UT Southwestern Clinical Research
Institute of Austin
Professor
Neurology and Neurotherapeutics
UT Southwestern Medical Center
Austin, Texas

#### Van J. Wedeen, M.D.

Associate Professor in Radiology at Harvard Medical School Assistant Neuroscientist at Massachusetts General Hospital Director of Connectomics at Martinos Center Department of Radiology, MGH

#### Kirk M. Welker, M.D.

Consultant
Division of Neuroradiology
Assistant Professor of Radiology
College of Medicine
Mayo Clinic
Rochester, MN

#### Christopher T. Whitlow, M.D., Ph.D.

Assistant Professor, Department of Radiology – Neuroradiology Assistant Professor, Translational Science Institute Wake Forest School of Medicine Winston-Salem, NC

#### Deborah Zarnow, M.D.

Staff Neuroradiologist/Assistant Professor of Radiology The Children's Hospital of Philadelphia Philadelphia, PA

#### **Accommodations**

## Charleston Place Hotel

Located at the very heart of downtown Charleston, in the historic district and within walking distance of all the major attractions, this luxurious hotel makes every guest feel part of this great Southern city. A gathering point for local society, it blends gentility and old-world charm with a leading-edge spa and innovative cuisine.

Renowned as Charleston's finest accommodations, it is a standard bearer of Orient-Express style. Its first-class meeting and event facilities are complemented by 'The Club', a private concierge level located on the top two floors. Leisure activities include relaxing by the rooftop pool, dining in the award-winning Charleston Grill and browsing the exclusive boutiques both at the hotel and in the shopping areas nearby.



The Charleston Grill is South Carolina's most notable Forbes Four-Star restaurant and has received the AAA Four Diamond Award and Distinguished Restaurant of North America Award. Relax in the warm and intimate ambiance of this top Charleston restaurant and enjoy the soft sounds of our live jazz trio.

Deluxe Rooms feature Charleston-inspired design and classic furniture. A generous armoire serves as both focal point and functional room accessory. Furnishings include a vintage accent chair, executive-style desk and chair, white duvets and gray sashes, a 26" flat screen TV and wireless internet. Bathrooms feature Italian marble and brass fixtures, most feature double-vanity sinks. Additional hotel amenities include twice daily housekeeping service, daily morning newspaper, overnight valet parking, full service concierge, fitness center and indoor/outdoor swimming pool, specialty Charleston Place bath amenities, plush robes and slippers, refreshment center, 24-hour room service, iron and ironing board, and hair dryer.

Make your reservation as soon as possible as our room block may sell out prior to the cut-off date of February 8, 2013. After this date, reservations will be accepted at the discretion of the hotel, on a space and rate available basis.

7th Annual Meeting of the

American Society of

# Functional Neuroradiology

Charleston Place Hotel • Charleston, South Carolina • March 10-13, 2013

# CALL FOR RESERVATIONS: (800) 831-3490 or email your request to groupres@charlestonplace.com

Remember to identify yourself as a registrant of ASFNR in order to qualify for the special discounted group room rate.

# SPECIAL DISCOUNTED GROUP ROOM RATE:

Single/Double Occupancy

\$240.00 Per Night

**Non Smoking Property** 

#### **ROOM OPTIONS:**

King Bed • Two Queen Beds

Reservations must be made by February 8, 2013. Room rates may be available three (3) days prior and after meeting, subject to availability and confirmation by the hotel. Please note that these rates do not reflect the current state and local taxes, currently 13.5% plus a \$1.00 nightly destination marketing fee. There will be an additional charge of \$25.00 for a third person sharing a double room. Children under 18 years of age may share the same room with parents at no additional charge. Rollaway beds are not available. Arrival time is 4pm; Check-out time is 12:00 noon. Deposit: To reserve your room using a credit card, you may call reservations at (800) 831-3490. Credit cards will be charged one night's room plus tax. Remember to identify yourself as a registrant of ASFNR in order to qualify for the special discounted group room rate. Cancellation: Individual deposits are refundable if cancelled at least 72 hours prior to arrival. Any guest that cancels a reservation after such time will have a charge of one night's room and tax applied to their account. Early departure fee is \$75.00. Call Professional Travel (official travel agency) at (800) 237-7230 (tall free U.S. and Canada) or (813) 806-1050 (direct) if you have any questions or problems making your hotel reservations or prefer alternate accommodations.

205 Meeting Street • Charleston, South Carolina 29401 Telephone: 888-635-2350



### American Society of Functional Neuroradiology Membership Information/Membership Application

#### **Membership Categories:**

Member: radiologist, neuroradiologist, physicist, or scientist who practices or has a special interest in functional neuroradiology

Associate: physician, scientist, or radiologic technologist (M.D., D.O., Ph.D., R.T.) with a special interest in functional neuroradiology but who does not fulfill the criteria for Member status

Student: medical, undergraduate, or graduate student, resident or fellow. Postdoctoral fellows will be considered, if they are within four years of their doctoral degree

#### **Membership Benefits:**

- Reduced Registration Fee to attend the ASFNR Annual Meeting\*
- Reduced Registration Fee to attend the American Society of Neuroradiology (ASNR) Annual Meeting\*
- Membership Certificate (*Member and Associate* only)
- Subscription to the American Journal of Neuroradiology at the ASNR member rate (Member and Associate only)
- Opportunity to join Study Groups
- · Opportunity to participate in the Scientific and Business Meetings, and activities of the Society
- Serve on standing committees, propose candidates for nomination, vote and hold elected office (Members only)

#### **Applying For Membership:**

#### If you are a current member of ASNR or:

American Society of Head and Neck Radiology (ASHNR)

American Society of Pediatric Neuroradiology (ASPNR)

American Society of Spine Radiology (ASSR)

Eastern Neuroradiological Society (ENRS)

Western Neuroradiological Society (WNRS)

- 1. Complete #1, 2, 3, and 8 of the membership application
- 2. Include prorated dues

#### If you are not a current member of the above societies, and are applying for Member or Associate status, you must include the following:

- 1. Completed membership application
- 2. One sponsor letter. Sponsor must currently hold ASFNR *Member* status, or the equivalent from the ASNR, ASHNR, ASPNR, ASSR, ENRS, or WNRS, and be familiar with the reputation and qualifications of the applicant and applicant's involvement and/or interest in functional neuroradiology.
- 3. Current curriculum vitae
- 4. Copy of Radiology Board or Subspecialty Certification (formerly CAQ) certificate
- 5. Prorated dues

#### If you are not a current member of the above societies, and are applying for Student status, you must include the following:

- 1. Completed membership application
- 2. One sponsor letter. Sponsor must currently hold ASFNR *Member* status, or the equivalent from the ASNR, ASHNR, ASPNR, ASSR, ENRS, or WNRS, and be familiar with the applicant's reputation, qualifications and involvement and/or interest in functional neuroradiology.
- 3. Letter from your Department Chairman verifying current status and expected date of graduation
- 4. Current curriculum vitae
- 5. Prorated dues

**Prorated Membership Dues** 

1 O Week 1 composition of the co							
ASFNR (prorated dues include application fee)		1 <sup>st</sup> Qtr.	2 <sup>nd</sup> Qtr.	3 <sup>rd</sup> Qtr.	4 <sup>th</sup> Qtr. **		
Membership Category	<b>Annual Membership Dues</b>	Jan-March	Apr-June	July-Sept	Oct-Dec		
Member	\$100 + \$25 application fee	\$125	\$100	\$75	\$125		
Associate	\$50 + \$25 application fee	\$75	\$63	\$50	\$75		
Student	\$25	\$25	\$19	\$13	\$25		

Each Study Group's dues are 10 (not prorated) – add 10 for each group membership and indicate your selected group(s) with an "X". Your Study Group membership(s) will begin upon your acceptance into Society membership.

BOLD fMRI \_\_\_\_Diffusion/Perfusion Imaging

<sup>\*\*</sup>When dues are paid in the 4<sup>th</sup> Quarter, membership is valid through the end of the following calendar year.

<sup>\*</sup>Deadline to Submit Membership Application: If you wish to register for the ASFNR 7<sup>th</sup> Annual Meeting at the discounted member rate, your completed application (and any required documentation and dues) must be received **no later than February 20, 2013**. You will receive an email confirming receipt of your application, after which you may register as an ASFNR member. If you wish to register for only the ASNR 51<sup>st</sup> Annual Meeting and The Foundation of the ASNR Symposium 2013 at the discounted ASFNR member rate, your completed ASFNR membership application must be received **no later than 30 days prior to** the start of ASNR 51<sup>st</sup> Annual Meeting and The Foundation of the ASNR Symposium 2013. For more information on that meeting, log onto www.asnr.org.

## ASFNR Membership Application

(Please type or print legibly)

Return completed membership application, any required documentation, and dues payment to:
ASFNR Membership Dept.♦ 800 Enterprise Dr., Suite 205 ♦ Oak Brook, IL 60523-4216

Membership ca	ategory applied for:	MemberAssociate	Student		
. Nam	e First	Middle Initial	Last Name	Degree	
	rirst	wilddie Initial	Last Name	Degree	
List b	both home and office (	if applicable) addresses:			
Hom			Office		
Addr			Institution		
			Department		
Zip_ Dhon	2( )		Address		
F M	ril Address		7in		
(F <sub>-m</sub>	ail address is <i>required</i>		ZipPhone ( )		
(2	un address is required	,	FAX ( )		
Indic	cate with an "X" all th	ne societies of which you are a member	:ASNRASHNRASPN ASSRENRS _	VR WNRS	
app If y	ropriate amount of pro	orated dues you do not need to complete ther of any of the societies listed above, or	ted above, proceed to #8 sign and date to the other sections of the application.		
•	•	ou belong to the following societies: _	ISMRMOHBM		
Spon	sor's Name:	mation on reverse side to determine quali	ified sponsors.		
Phon	e: ( )	E-mail			
Certification: Board:Subspecialty Certification (formerly CAQ)			Dat	e	
		Certification (formerly CAQ)	Date		
Fellowshins: Institution (1):		0:	Dates		
	Institution (2	2):	Dates Dates		
		SFNR Constitution and any revisions		_	
Appl	icant's Signature		Date		
lease note:			es by check (made payable to ASFNR), on hip dues by credit card. Payment <u>must</u> ac		
		Complete the following information	ation for credit card payment		
lling address,	if different from #2 abo	ove: Check one:HomeInst	itutionBusiness Office		
ame of Institut	ion/Affiliation:				
ty:		State/Province: 2	Zip/Postal Code:		
		o dues: \$			
		MasterCard Visa			
		viasterCardvisa	Expiration Date:		
	ars on the card:				

7th Annual Meeting of the



American Society of

# Functional Neuroradiology

March 11 - 13, 2013 • Charleston Place Hotel • Charleston, South Carolina

**REGISTER NOW!** 

#### WORKSHOP REGISTRATION WORKSHOP REGISTRATION REGISTRATION MEETING REGISTRATION **MEETING REGISTRATION** ON / BEFORE 2/8/13 **AFTER 2/8/13 ON/BEFORE 12/31/12\* AFTER 12/31/12\* □** +\$225 **\$395** \$445 □ ASFNR MEMBER → +\$250 □ NON MEMBER **\$**495 **\$**545 **□** +\$225 **□** +\$250 ☐ TECHNOLOGIST. RETIRED PHYSICIAN. \$195 **\$245** → +\$225 → +\$250 FELLOW\*, FULL-TIME **MILITARY\*, RESIDENT\*** \*Optional BOLD Functional MRI Hands-on Workshop (Attendance limited to first 20 registrants.) FOR YOUR CONVENIENCE. REGISTER ONLINE AT WWW.ASFNR.ORG I am: (please check one) ☐ ASFNR Member ☐ Non Member ☐ Retired Physician ☐ Technologist ☐ Fellow\* ■ Military\* ■ Resident\* \*Must enclose letter from Director verifying status. FILL OUT & SEND (PLEASE PRINT) □ M.D. □ D.O. □ Ph.D. □ R.T. □ Other □ □ Specialty □ Facility/Organization \_\_\_\_\_\_Dept. \_\_\_\_\_ Street Address OFFICE City\_\_\_\_\_\_State\_\_\_\_\_Zip\_\_\_\_\_ Fax Email PAYMENT INFORMATION: DISCOVER □ Check Enclosed (Payable to: ASFNR) □ Charge to Credit Card: □ Charge to Credit Card: □ VISA □ Name on Card: Same As Above \_\_\_\_\_\_ Card Billing Address: □ Same As Above City \_\_\_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ \_\_\_\_\_Expiration Date: \_\_\_\_\_/\_\_\_\_ Credit Card Number: Card Security Code\* \*\*MasterCard, Visa and Discover: The last 3 Digits printed in signature space on card back. American Express: 4 Digits above account number on card front. Signature: REGISTER NOW: CALL (800) 338-5901 or Fax 800-344-0668 ON or BEFORE FEBRUARY 8, 2013

CANCELLATIONS: Request for refund of registration fees, less a \$75.00 administrative fee, will be made to those providing written notification of cancellation by February 9, 2013. After that date, there will be no refunds given for cancellations. Please email notice of cancellation to: lsessa@edusymp.com or fax to 800-344-0668.

ASFNR, c/o Educational Symposia • 5620 West Sligh Avenue • Tampa, Florida 33634-4490