WELCOME

The mission of the Neurocritical Care Society is to improve outcomes for patients with life-threatening neurological/neurosurgical illnesses by promoting quality patient care, multi-disciplinary professional collaboration, research training and advocacy. This year’s Annual Meeting Committee is comprised of an extremely talented and diverse group of health care professionals who practice neurocritical care and include nurses, nurse practitioners, pharmacists, anesthesiologists, emergency medicine physicians, internists, interventionalists, neurologists and neurosurgeons who have put together a fantastic program to meet our mission. This is easily the most comprehensive and ambitious program we have had to date.

The theme of the 9th Annual Meeting of the Neurocritical Care Society is “Improving the Practice of Neurocritical Care.”

The two previous meeting themes have been ‘Setting Standards’ and ‘Making Connections’, which we have been doing and continue to do. The NCS now has members from over 30 different countries and many different disciplines. We have had collaborations and joint conferences throughout Asia, Africa, Europe and North and South America. The NCS has started to help set standards in education with the Neurocritical Care Review Course and the Emergency Neurologic Life Support program and in practice with practice guidelines and consensus statements. We need to translate these collaborations and standards to improved practice.

The first day and a half of this year’s meeting is packed with a variety of offerings to help improve practice with: 1) the United Council for Neurological Subspecialties (UCNS) Neurocritical Care test Review Course; 2) hands-on/small group workshops; and 3) a basic science-translational science workshop.

The Review Course has been restructured to more closely meet the needs of those who will be taking the UCNS test, but will also be useful for those who just want to brush up on basics of neurocritical care.

The hands-on/small group workshops were wildly popular last year and will be offered again this year. One aspect of improving practice that we are addressing is the learning of techniques and close interaction with experts in different fields. Some of the session topics include intracranial monitor placement and interpretation, mechanical ventilation, airway management, percutaneous trachestomy, and financial aspects of how to start and run neurocritical care units. The workshops will have limited registration and sold out last year, so register early!

In addition, there will be an all day workshop on basic science and translational aspects of consciousness, TBI and inflammation in neurological care. Science is the foundation of good medicine and these will be important opportunities for NCS members to learn and contribute.

Thursday afternoon through Saturday morning will be the start of the main meeting of the NCS with an agenda continuing the focus on Improving the Practice of Neurocritical Care. We will start with a session on Neurotrauma that begins with what promises to be a moving talk by the ‘Central Park Jogger’ – the young investment banker who was brutalized by a gang while jogging in Central Park. This should help remind us why we do what we do.

Other plenary sessions include neurocritical care complications in the ICU and an examination of the development and use of biomarkers in acute neurologic injury. A session detailing the consensus conference on SAH in Paris that was arranged by the NCS will be presented as will a session that deals with some of the future projects of the NCS: the delivery of neurocritical care under catastrophic conditions. Depressingly, it seems that we will continue to suffer the threat of war and terrorism and astonishing acts of nature that will test our ability to care for our patients.

There will also be more workshop offerings including how to hire and use physician assistants and nurse practitioners, how to develop a continuous EEG program, using transcranial Doppler ultrasound, basic and advanced neuroimaging and how to deliver hypothermia and normothermia to our patients.

Research is an extremely important area for the NCS and is integral in our ability to improve practice and an important part of the meeting is the display of our member’s research efforts and there will be oral abstract and poster sessions as usual.

Finally, our annual Society Dinner will include an interesting talk by Dr. William Feindel from Montréal, a retired neurosurgeon and former director of the Montréal Neurological Institute who will discuss some of the ground breaking work done at the institute.

I selected a very diverse, multi-disciplinary Annual Meeting Committee who I believe have come up with yet another great NCS meeting in a great city – if you take care of neurocritically ill patients and can only go to one meeting, this is it!

Gene Sung, MD, MPH
Chair, Annual Meeting Program Committee
Vice President, Neurocritical Care Society
Director, Division of Neurocritical Care and Stroke
University of Southern California

9TH ANNUAL NEUROCITICAL CARE SOCIETY MEETING

Learning Objectives

9th Annual Neurocritical Care Society Meeting
The attendee will be able to:
• Identify strategies to improve the practice of neurocritical care.
• Describe how consensus statements are developed and how they can improve clinical practice and improve outcome.
• Identify the neurocritical care complications that can develop in critically ill patients.
• Describe the development, uses and limitations of biomarkers in the measurement of acute neurologic injury.
• Describe the development and results of studies in the management of traumatic brain injury.
• Discuss the challenges that face caregivers delivering Neurocritical care under catastrophic conditions.
• Describe how fundamental advances in the basic sciences can influence changes in the practice of Neurocritical care.

2011 Neurocritical Care Society Review Course
The attendee will be able to:
• Describe general principles in critical care medicine.
• Assess his/her knowledge in critical care medicine and neurological disease processes found in the critically ill patient.
• List the core curriculum and content for the UCNS neurocritical care certification examination.
• Identify strong knowledge base and areas that require further review.

Clinical Workshops
(Learning objectives are dependent on the workshop(s) attended.)
The attendee will be able to:
• Describe the techniques, uses and limitations of microdialysis, brain oxygen monitoring, and continuous EEG monitoring in the neuro-ICU.
• Identify indications for different modalities of mechanical ventilation.
• Optimize diagnosis of airway problems and recognize best techniques for management.
• Describe the financial management of neurocritical care.
• Describe the differences in imaging modalities and their indications and interpretations.
• Recognize the utility of transcranial Doppler ultrasound.
• Identify the different management strategies of delivering and maintaining hypothermia and normothermia.
• Appropriately start and utilize continuous EEG in his/her hospital.
• Identify how to hire and utilize physician assistants and nurse practitioners.

Target Audience
• Physicians in neurosurgery and neurology
• Physicians in critical care and pulmonary medicine
• Physicians in anesthesiology
• Physicians in surgery
• Physicians in emergency medicine
• Critical care nurses
• Neurological nurses
• Advanced critical care nurse practitioners
• Physician assistants
• Pharmacists

2011 NCS Annual Meeting Committee Members
Gene Sung, MD, MPH, Chair
Opeolu Adeoye, MD
Sheila Alexander, PhD
Gretchen Brophy, PharmD, BCPS, FCCP, FCCM
Ross Bullock, MD, PhD
Giuseppe Citerio, MD
Fern Cudlip, MSN, FNP-BC, CNRN
Joshua Goldstein, MD
J. Claude Hemphill, III, MD
Theresa Human, PharmD, BCPS
Andrew Kofke, MD
Byung-In Lee, MD
Geoffrey Ling, MD, PhD
William Mack, MD
Edward Manno, MD
Laura H. Mcilvoy, PhD, RN, CCRN, CNRN
J. Javier Provenzio, MD
Álvaro Réa-Neto, MD
Erich Schmutzhard, MD
David Seder, MD
Michel Torbey, MD
Paul Vespa, MD (Fundraising Committee Liaison)

2011 Fundraising Committee Members
Paul Vespa, MD, Chair
Cherylee Chang, MD
Michael DeGeorgia, MD
Michael Diringer, MD
Martha Eggleston, RN, MS, CCRN, CNS
J. Claude Hemphill, III, MD
Michael L. James, MD
Emanuela Keller, MD
George A. Lopez, MD
Stephan Mayer, MD
Gene Sung, MD
Panayiotis Varelas, MD

Acknowledgement:
The Neurocritical Care Society would like to thank the following companies:
(as of August 17, 2011)

Platinum Level - $50,000
Baxter
Otsuka
Gold Level - $25,000
Codman
Hospira
Silver Level - $15,000
NeuroOptics
Silver Level - $10,000
CareFusion
Integra Foundation
The Medicines Company
Bronze Level - $5,000
Banyan Biomarkers, Inc.

2011 Exhibitors: (as of August 17, 2011)
Banyan Biomarkers, Inc.
Baxter
CareFusion
Cincinnati Sub-Zero
CNS Technology, LLC
Codman
Dipylon Medical, Inc.
EKR Therapeutics, Inc.
Hemedex
Hospira
InnerSpace, Inc.
Integra LifeSciences
InTouch Health
Login Canada
The Medicines Company
Medivance
Natus Medical Incorporated
NeuroOptics
Nihon Kohden America
Philips InnerCool
Point-of-Care Center for Emerging Neuro Technologies (POC-CENT)
Pulsion Medical, Inc.
RosmanSearch, Inc.
ZOLL Medical Corporation
Zonare Medical Systems Canada Ltd.

Endorsements
The following organizations endorse the 9th Annual Neurocritical Care Society Meeting:
German Society for Critical Care Neurology
Neurological Emergencies Treatment Trials
Society of Interventional Radiology
Society of Vascular and Interventional Neurology

Young Investigator Award with support from Codman
An award will be given at the 2011 annual meeting for the outstanding abstract submitted by a junior member of the society (student, resident, or fellow). Please note that one must be a member of the Neurocritical Care Society at the time the abstract is submitted. The recipient is expected to attend the annual meeting.

Best Scientific Abstract Award
An award will be given at the 2011 annual meeting for the outstanding scientific abstract submitted by a member of the society. Please note that one must be a member of the Neurocritical Care Society at the time the abstract is submitted. The recipient is expected to attend the annual meeting.
This year, the second translational science mini-symposium will focus on three topics: 1) imaging of the conscious mind particularly in patients with brain injuries; 2) pathological mechanisms of brain injury; and 3) inflammatory pathways in disease.

Our goal is to highlight research done in our field by members of our society as well as to invite researchers from around the world to join us in our endeavor to answer questions that will lead to treatments and hopefully cures for patients with critical illness neurological problems. We have assembled a diverse and interesting symposium. Science is the foundation of good medicine and these will be important opportunities for NCS members to learn and contribute.

**Learning Objectives**
- The attendee will be able to describe the current understanding of the conscious mind in the setting of brain injury.
- The attendee will be able to understand new pathways that could be important targets for future therapies.
- The attendee will be able to identify current basic science related to inflammation in the brain injury.
- The attendee will be able to understand how to develop interactions between scientists in the field of neurocritical care.

**Wednesday, September 21, 2011**

**NEUROCRITICAL CARE SOCIETY**

**TRANSLATION/BASIC RESEARCH SYMPOSIUM**

9:00 - 9:05 a.m.
**Introduction**
Jennifer Frontera, MD and J. Javier Provencio, MD

**CONSCIOUSNESS AND CRITICAL ILLNESS**
**Moderators:**
Jennifer Frontera, MD and Robert Stevens, MD
9:05 - 9:35 a.m.
**Critical Illness Encephalopathy**
Robert Stevens, MD
9:35 - 10:05 a.m.
**Imaging in Neurological Illnesses**
Ramon Diaz-Arrastia, MD, PhD

10:05 - 10:35 a.m.
**Break**

**PATHOLOGICAL MECHANISMS IN BRAIN INJURIES**
**Moderators:**
Daniel Laskowitz, MD and Paul Nyquist, MD
11:00 - 11:30 a.m.
**PARP-1 and TBI**
Robert S.B. Clark, MD
11:30 a.m. - 12:00 p.m.
**Adenosine Neuroprotection in Hypoxic-Ischemic Neuronal Injury**
Santiago Ortega-Gutierrez, MD

12:00 - 12:30 p.m.
**Glucose Control after Neurological Injury**
Christiana E. Hall, MD, MS

12:30 - 1:30 p.m.
**Lunch**

**THE LINKS BETWEEN INFLAMMATION AND ACUTE NEUROLOGICAL DISORDERS**
**Moderators:**
Marion Buckwalter, MD, PhD and Gail Pyne Geithman, DPhil
1:30 - 2:00 p.m.
**The Neuroinflammatory Reflex and the Heart**
J. Javier Provencio, MD
2:00 - 2:30 p.m.
**Platelet Interactions and Inflammation after SAH-human**
Jennifer Frontera, MD
2:30 - 3:00 p.m.
**Mechanisms of Inflammation after Intracerebral Hemorrhage: The Role of Immune Cells in Early Brain Injury**
Matthew Loftspring, PhD
3:00 - 3:15 p.m.
**Closing Remarks**
Jennifer Frontera, MD and J. Javier Provencio, MD

**Wednesday, September 21**

**LOCATION**
- Ultrasound: Line Placement, Cardiac, Abdominal, Bladder ............ St. Pierre Room
- Percutaneous Tracheostomy ............ LaSalle Room
- Continuous EEG..................................... Verdun Room

1:30 – 4:30 p.m.
- Ultrasound: Line Placement, Cardiac, Abdominal, Bladder ............ St. Pierre Room
- Normothermia/Hypothermia: Induction, Management ............. Lachine Room

1:45 – 4:30 p.m.
- Imaging: When and What to Order; How to Interpret ......................... Fundy Room

**Thursday, September 22**

8:30 – 11:30 a.m.
- Simulation Codes ...................................... LaSalle Room
- Continuous EEG..................................... Verdun Room
- Transcranial Doppler ............................ Cote St-Luc Room
- Normothermia/Hypothermia: Induction, Management ............. Lachine Room

**Friday, September 23**

8:30 – 11:30 a.m.
- Intracranial Monitors: Placement/Interpretation ............. Mont-Royal Room
- Mechanical Ventilation ............................. Cote St-Luc Room
- How to Run a Unit I: How to Use/Hire PA’s and NP’s ........ Verdon Room

1:30 – 4:30 p.m.
- Intracranial Monitors: Placement/Interpretation ............. Mont-Royal Room
- Simulation Codes ...................................... LaSalle Room

**Saturday, September 24**

8:30 – 11:30 a.m.
- Intracranial Monitors: Placement/Interpretation ............. Mont-Royal Room
- Mechanical Ventilation ............................. Cote St-Luc Room
- How to Run a Unit II: Show Me the $$$/Write a Business Proposal .... Verdon Room

*Simulation Codes Workshop supported by METI Learning*
### Schedule at a Glance

**Registration opens daily at 6:45 a.m.**

**Exhibits are open Wednesday-Friday 7:00 a.m. – 4:00 p.m.**

#### Tuesday, September 20

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00 p.m. – 8:00 p.m.</td>
<td>Registration</td>
<td>Montréal Ballroom Foyer</td>
</tr>
</tbody>
</table>

#### Wednesday, September 21

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:45 a.m. – 5:00 p.m.</td>
<td>Registration</td>
<td>Montréal Ballroom Foyer</td>
</tr>
<tr>
<td>7:00 a.m. – 8:30 a.m.</td>
<td>Breakfast</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>7:00 a.m. – 4:00 p.m.</td>
<td>Exhibits</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>7:30 a.m. – 5:30 p.m.</td>
<td>NCS Review Course</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>9:00 a.m. – 3:15 p.m.</td>
<td>Translational/Basic Research Symposium</td>
<td>Montréal Ballroom - Mont-Royal/</td>
</tr>
<tr>
<td>8:30 a.m. – 4:30 p.m.</td>
<td>Clinical Workshops</td>
<td>Various Salons</td>
</tr>
<tr>
<td>12:00 p.m. – 1:00 p.m.</td>
<td>Lunch/Mentorship Tables</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>5:45 p.m. – 8:00 p.m.</td>
<td>Satellite Dinner Symposium,</td>
<td>Montréal Ballroom - Mont-Royal/</td>
</tr>
<tr>
<td></td>
<td>with support from</td>
<td>Hampstead/Cote St-Luc</td>
</tr>
<tr>
<td>8:00 p.m. – 10:00 p.m.</td>
<td>Nursing and Stroke Coordinator Session</td>
<td>Mansfield Room</td>
</tr>
<tr>
<td></td>
<td>with support from</td>
<td></td>
</tr>
</tbody>
</table>

#### Thursday, September 22

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:45 a.m. – 5:00 p.m.</td>
<td>Registration</td>
<td>Montréal Ballroom Foyer</td>
</tr>
<tr>
<td>6:45 a.m. – 7:30 a.m.</td>
<td>Breakfast</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>7:00 a.m. – 4:00 p.m.</td>
<td>Exhibits</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>7:30 a.m. – 12:00 p.m.</td>
<td>NCS Review Course</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>8:30 a.m. – 4:30 p.m.</td>
<td>Clinical Workshops</td>
<td>Various Salons</td>
</tr>
<tr>
<td>12:00 p.m. – 1:00 p.m.</td>
<td>Lunch/Mentorship Tables</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>1:00 p.m. – 7:30 p.m.</td>
<td>9th Annual NCS Meeting</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>4:45 p.m. – 6:15 p.m.</td>
<td>Oral Abstract Session I</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>6:15 p.m. – 7:30 p.m.</td>
<td>Poster Session I</td>
<td>Fontaine Salons C - H</td>
</tr>
<tr>
<td>7:30 p.m. – 9:30 p.m.</td>
<td>Satellite Dinner Symposium,</td>
<td>Montréal Ballroom - Mont-Royal/</td>
</tr>
<tr>
<td></td>
<td>with support from</td>
<td>Hampstead/Cote St-Luc</td>
</tr>
</tbody>
</table>

#### Friday, September 23

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:45 a.m. – 5:00 p.m.</td>
<td>Registration</td>
<td>Montréal Ballroom Foyer</td>
</tr>
<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Breakfast - Subspecialty Corners:</td>
<td>Various Salons, see page 8</td>
</tr>
<tr>
<td></td>
<td>Residents/Fellows, Fellowship Directors, Nurses, ICU Directors, Pharmacists, Neurohospitalists, International NCS Members</td>
<td></td>
</tr>
<tr>
<td>7:00 a.m. – 4:00 p.m.</td>
<td>Exhibits</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>8:00 a.m. – 6:30 p.m.</td>
<td>9th Annual NCS Meeting</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>8:30 a.m. – 4:30 p.m.</td>
<td>Clinical Workshops</td>
<td>Various Salons</td>
</tr>
<tr>
<td>12:10 p.m. – 1:15 p.m.</td>
<td>Lunch/Mentorship Tables</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>12:30 p.m. – 1:15 p.m.</td>
<td>Technology Lunch Symposium with support from</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>3:45 p.m. – 5:15 p.m.</td>
<td>Oral Abstract Session II</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>5:15 p.m. – 6:30 p.m.</td>
<td>Poster Session II</td>
<td>Fontaine Salons C - H</td>
</tr>
<tr>
<td>7:00 p.m. – 12:30 a.m.</td>
<td>Society Reception and Dinner: Keynote Address, Award Ceremony, followed by the Battle of the Bands</td>
<td>Le Windsor Ballrooms, 1170 Peel Street, Montréal</td>
</tr>
</tbody>
</table>

#### Saturday, September 24

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:45 a.m. – 11:30 a.m.</td>
<td>Registration</td>
<td>Montréal Ballroom Foyer</td>
</tr>
<tr>
<td>7:30 a.m. – 8:30 a.m.</td>
<td>Breakfast</td>
<td>Fontaine Salons A &amp; B</td>
</tr>
<tr>
<td>8:00 a.m. – 11:15 a.m.</td>
<td>9th Annual NCS Meeting</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>8:00 a.m. – 9:00 a.m.</td>
<td>Oral Abstract Session III</td>
<td>Montréal Ballroom - Westmount/Outremont</td>
</tr>
<tr>
<td>8:30 a.m. – 11:30 a.m.</td>
<td>Clinical Workshops</td>
<td>Various Salons</td>
</tr>
</tbody>
</table>

**Mentorship tables:** New this year! Mentorship Tables, informal settings for anyone to drop by for any advice for any career level or just small talk! There will be separate tables set aside during lunch Wednesday, Thursday and Friday for nurses, pharmacists and physicians.
2011 NCS Review Course, 9th Annual Neurocritical Care Society Meeting, and NCS Clinical Workshops

Faculty:

Cherylee W. J. Chang, MD  
The Queen's Medical Center  
Honolulu, HI

Ira Chang, MD  
Blue Sky Neurosciences PLLC, Swedish Medical Center, and University of Colorado School of Medicine

Randall Chesnut, MD  
University of Washington  
Seattle, WA

Giuseppe Citerio, MD  
Hospital San Gerardo  
H San Gerardo - Monza, Italy

Jan Claassen, MD  
Columbia University  
New York, NY

Robert S.B. Clark, MD  
University of Pittsburgh School of Medicine  
Pittsburgh, PA

Guy L. Clifton, MD  
University of Texas Medical School  
Houston, TX

William Coplin, MD  
Wayne State University  
Detroit, MI

Michael N. Diringer, MD  
Washington University in St. Louis  
St. Louis, MO

Guy M. Dugan, MD  
Alexian Brothers Medical Center  
Elk Grove Village, IL

William Feindel, MD  
Montreal Neurological Institute and Hospital  
Montreal, Quebec, Canada

Jeffrey I. Frank, MD  
University of Chicago  
Chicago, IL

W. David Freeman, MD  
Mayo Clinic  
Jacksonville, FL

Jennifer A. Frontera, MD  
Mount Sinai Medical School  
New York, NY

Gail Pyne-Geithman, DPhil  
University of Cincinnati  
Cincinnati, OH

Carmelo Graffagnino, MD, FRCPC  
Duke University  
Durham, NC

Erin Grise, PharmD  
University of Cincinnati  
Cincinnati, OH

Werner Hacke, MD  
Neurologische Klinik Universitat Heidelberg  
Heidelberg, Germany

Christiana E. Hall, MD, MS  
University of Texas Southwestern  
Dallas, TX

J. Claude Hemphill, III, MD, MAS  
University of California, San Francisco  
San Francisco, CA

Galen V. Henderson, MD  
Harvard University  
Boston, MA

Dale Hoekema, MD  
Kadlec Regional Medical Center  
W. Richland, WA

Chris Hogan, MD, FACEP  
Virginia Commonwealth University Medical Center  
Richmond, VA

Brian Hob, MD, FACS, FAHA  
University of Florida  
Gainesville, FL

Theresa Human, PharmD, BCPs  
Washington University in St. Louis  
St. Louis, MO

Andreas Jeromin, PhD  
Banyan Biomarkers, Inc.  
Alachua, FL

Christopher Junker, MD  
George Washington University  
Washington, DC

Mary Kerr, PhD  
University of Pittsburgh  
Cranberry Twp., PA

Matthew A. Koenig, MD  
The Queen's Medical Center  
Honolulu, HI

Opeolu Adeoye, MD  
University of Cincinnati  
Cincinnati, OH

Ramon Diaz-Arrastia, MD, PhD  
University of Texas Southwestern  
Dallas, TX

Mary Kay Bader, MSN, RN, CCRN, CNRN  
Mission Hospital  
Mission Viejo, CA

Howard Belzberg, MD, FCCP, FCCM, FACP  
University of Southern California  
Los Angeles, CA

Gretchen M. Brophy, PharmD, BCPS, FCCP, FCCM  
Virginia Commonwealth University  
Richmond, VA

Marion S. Buckwalter, MD, PhD  
Stanford University  
Stanford, CA

Ross Bullock, MD, PhD  
Virginia Commonwealth University  
Richmond, VA
WEDNESDAY, September 21, 2011

NEUROCRITICAL CARE SOCIETY REVIEW COURSE

NEUROLOGICAL DISEASE STATES: PATHOLOGY, PATHOPHYSIOLOGY AND THERAPY – CEREBROVASCULAR DISEASES

7:30 - 7:55 a.m.
Ischemia and Infarction
Wade S. Smith, MD, PhD

7:55 - 8:20 a.m.
Intracerebral Hemorrhage
J. Claude Hemphill III, MD, MAS

8:20 - 8:45 a.m.
Dissection of Arteries Supplying the Brain
Owen Samuels, MD

8:45 - 9:15 a.m.
Disorders, Diseases, Seizures and Epilepsy

10:00 - 10:20 a.m.
Seizures and Epilepsy
Ira Chang, MD

10:20 - 10:40 a.m.
Guillain-Barré Syndrome and Myasthenia Gravis
Eelco F. M. Wijdicks, MD, PhD, FACP

10:40 - 11:00 a.m.
Brain Tumors and Metastases
Galen Henderson, MD

11:00 - 11:30 a.m.
Meningitis and Encephalitis
Bart Nathan, MD

11:30 a.m. - 12:00 p.m.
Encephalopathies
Carmelo Graffagnino, MD, FRCP

12:00 - 1:00 p.m.
Lunch/Mentorship Tables
Attendees will have the opportunity to meet with mentors from their respective fields to discuss career related topics over lunch.

1:00 - 1:40 p.m.
Clinical Syndromes
Christine A.C. Wijman, MD, PhD

1:40 - 2:00 p.m.
Management of Increased Intracranial Pressure
Stephan A. Mayer MD, FCCM

2:00 - 2:35 p.m.
Pharmacology in the Neurointensive Care Unit
Theresa Human, PharmD, BCPS

2:35 - 3:00 p.m.
Postoperative Neurosurgery
Peter LeRoux MD, FACS

3:00 - 3:15 p.m.
BREAK

3:15 - 4:15 p.m.
Cardiac and Pulmonary Vascular Disease
Andrew M. Naidech, MD, MSPH

4:15 - 4:50 p.m.
Mechanical Ventilation
Peter J. Papadakos, MD

4:50 - 5:30 p.m.
Respiratory Management of the Neurocritically Ill
David Seder, MD

5:30 – 6:15 p.m.
Satellite Dinner Symposium: Recognition and Treatment of Hyponatremia in the Neurocritical Care Setting (Non-CME)

5:30 - 6:15 p.m.
Dinner

6:15 - 6:20 p.m.
Welcome and Introductions
Ki won Lee, MD, Chair

6:20 - 6:45 p.m.
Evaluation of Hyponatremia in the Hospital Setting
Kees H. Polderman, MD, PhD

6:45 - 7:05 p.m.
Hyponatremia in the Neurocritical Care Setting: What Does It Look Like?
Ki won Lee, MD

7:05 – 7:35 p.m.
Samsca® (tolvaptan) for Dilutional Hyponatremia: A Targeted Approach to Care
Marc Lapointe, PharmD, BCPS, BCNSP

7:35 - 7:55 p.m.
Optimizing Management of Hyponatremia in Neurocritical Care
Ki won Lee, MD

7:55 - 8:10 p.m.
Questions and Answers

8:10 - 8:15 p.m.
Closing Remarks
Ki won Lee, MD

8:00 – 10:00 p.m. – Mansfield Room
Nursing and Stroke Coordinator Session: Best Practices in Stroke Care – Sharing Successes
Supported by THE MEDICINES COMPANY

THURSDAY, September 22, 2011

7:30 - 8:15 a.m.
Renal Physiology, Electrolyte Abnormalities, Acid-Base Disorders and Acute Kidney Injury in the ICU
Guy Dugan, MD, FCCP

8:15 - 8:45 a.m.
Metabolic and Endocrine Disorders in Critical Illness Therapeutic Hypothermia
Ki won Lee, MD, FACP, FAHA

8:45 - 9:15 a.m.
Acute Hematologic Disorders in ICU
Andreas H. Kramer, MD, MSc, FRCP

9:15 - 9:45 a.m.
Acute Gastrointestinal and Genitourinary Disorders
Christiana E. Hall, MD, MS

9:45 - 10:00 a.m.
BREAK

10:00 - 10:40 a.m.
Infectious Disease Physiology, Pathology, Pathophysiology and Therapy
Howard Belzberg, MD, FCCP, FCCM, FACP

10:40 - 11:10 a.m.
An Overview of Ethical and Legal Considerations in Neurocritical Care/ Neurocritical Care Issues Related to Organ Donation (Before & After)
Jeffrey I. Frank, MD, FAAN, FAHA

11:10 - 11:30 a.m.
Administrative and Management Principles and Techniques
Wendy L. Wright, MD
FRIDAY, September 23, 2011

7:00 - 8:00 a.m.
Special Interest Breakfast Corners:
Fellowship Directors
Location: Westmount/Outremont
Moderator: David McDonagh, MD

ICU Directors
Location: St. Lambert
Moderator: Owen Samuels, MD

International Members
Location: St. Leonard
Moderator: Erich Schmutzhard, MD

Neurohospitalists
Location: St. Laurent
Moderator: Ira Chang, MD

Nurses
Location: St. Pierre
Moderators: Susan Yeager, MS, RN, CCRN, ACNP & Cindy Bautista, PhD

Pharmacists
Location: St. Michel
Moderators: Denise Rhoney, PharmD & Theresa Human, PharmD, BCPS

Residents and Fellows
Location: LaSalle
Moderator: Joshua Duckworth, MD

NEUROCRITICAL CARE

COMPLICATIONS IN THE ICU

Moderators:
Alvaro Rea-Neto, MD and Erich Schmutzhard, MD

8:00 - 8:40 a.m.
Multiple Organ Dysfunction Complicating Acute Neurologic Injury
Alvaro Rea-Neto, MD

8:20 - 8:40 a.m.
Complications of Hypothermia Therapy
Stefan Schwab, MD

8:40 - 9:00 a.m.
Nosocomial Infections: Prevention and Treatment
Erich Schmutzhard, MD

9:00 - 9:20 a.m.
Electrolyte and Acid-Base Disorders
Michel Torbey, MD, MPH, FAHA, FCCM

9:20 - 9:40 a.m.
Complications of Hemicraniectomy
Werner Hacke, MD

9:40 - 10:20 a.m.
BREAK

BIOMARKERS OF ACUTE NEUROLOGIC INJURY

with support by Banyan Biomarkers, Inc.

Moderators:
Mary Kerr and Peter LeRoux, MD, FACS

10:20 - 10:50 a.m.
Development of Biomarkers
Andreas Jeromin, PhD

10:50 - 11:10 a.m.
Biomarker Kinetic Characteristics and Associated Outcomes
Gretchen Brophy, PharmD, BCPS, FCCP, FCCM

11:10 - 11:30 a.m.
Use of Microdialysis Specific to Biomarkers
Martin Smith, MD

11:30 - 11:50 a.m.
Imaging-Based Biomarkers
Ramon Diaz-Arrastia, MD, PhD

11:50 a.m. - 12:10 p.m.
Genetics
Daniel Woo, MD

12:10 - 1:15 p.m.
Lunch/Mentorship Tables
Attendees will have the opportunity to meet with mentors from their respective fields to discuss career related topics over lunch.

12:30 - 12:40 p.m.
Pupillometry: How It Works
Katherine Johnson, MD, CNRN, CNS

12:40 - 12:50 p.m.
Bedside Nursing Use of Pupillometry
Mary Kay Bader, RN

12:50 - 1:00 p.m.
Clinical Research in Neurocritical Care Pupillometry
J. Claude Hemphill, III, MD, MAS

1:00 - 1:15 p.m.
Panel Discussion and Questions

SUBARACHNOID HEMORRHAGE
Moderator:
Giuseppe Citerio, MD

1:15 - 1:35 p.m.
What are our Clinical Targets?
Mauro Oddo, MD

(Continued on next page)
Congratulations to the 2011 NCS Travel Grant Awardees!

Supported by

The 2011 NCS Travel Grant, supported by the Integra Foundation, provided financial assistance to neuroscience critical care nurses, pharmacists, and resident/fellow physicians in order to attend the 2011 NCS Annual Meeting. 66 individuals submitted applications for the award. After careful review by the Selection Committee, ten $1,000 awards were given to the following NCS members:

- Andrew Busler, MSN, ACNP-BC
- David Ethan Kahn, DO
- Jessica McFarlin, MD
- Stefania Mondello, MD
- Ashkan Mowla, MD
- Angela Nelson, ACNP
- Neil Rosenberg, MD
- Anthony Shaun Rowe, PharmD
- Michelle VanDemark, CNP
- Julie A. Wubs, RN, MSN, CCRN, CNRN, ACNP-BC

---

9TH ANNUAL NCS MEETING SCHEDULE
(CONTINUED FROM PAGE 8)

1:35 - 1:55 p.m.
Why and How to Reach a Consensus on SAH
Michael Diringer, MD

1:55 - 2:15 p.m.
Monitoring and Management of Volume Status and Cardiovascular Complications
Stefan Wolf, MD

2:15 - 2:35 p.m.
Medical Treatment of Delayed Cerebral Ischemia
J. Claude Hemphill, III, MD, MAS

2:35 - 2:55 p.m.
Endovascular Treatment of Delayed Cerebral Ischemia
Brian Hoh, MD, FACS

2:55 - 3:15 p.m.
Metabolic Derangements
Giuseppe Citerio, MD

3:15 - 3:45 p.m.
BREAK

3:45 - 5:15 p.m.
Oral Abstract Session II
Moderators:
J. Claude Hemphill, III, MD, MAS
Konstantin Popugaev, MD

5:15 - 6:30 p.m.
Poster Session II

8:00 - 9:00 a.m.
Oral Abstract Session III
Moderators:
Susaane Muehlschlegel, MD
Giselle Silva-Sampaio, MD

9:00 - 9:15 a.m.
BREAK

NEUROCRI TICAL CARE IN CATASTROPHIC CONDITIONS
Moderators:
William Coplin, MD and Geoffrey Ling, MD, PhD

9:15 - 9:20 a.m.
Introduction

9:20 - 9:40 a.m.
War
Geoffrey Ling, MD, PhD

9:40 - 10:00 a.m.
Terrorism
Stephan A. Mayer, MD, FCCM

10:00 - 10:20 a.m.
Earthquake
David Sileo, RN, MS, ACNP

10:20 - 10:40 a.m.
Hurricane
Chris Hogan, MD, FACEP

10:40 - 10:55 a.m.
Limited Resources/Poverty - Africa
Matthew A. Koenig, MD

10:55 - 11:10 a.m.
Limited Resources - East Africa
William Coplin, MD

11:10 - 11:30 a.m.
Panel Discussion

11:30 a.m.
Final Adjourn

Join your colleagues for a fun evening of socializing, dining, and dancing!

SOCIETY RECEPTION AND DINNER, KEYNOTE ADDRESS, AWARD CEREMONY

Friday, September 23, 2011
7:00 p.m. – 12:30 a.m.
Le Windsor
1170 Peel Street
Montréal, Quebec H3B 4P2
Website: www.lewindsor.com

Keynote Address: The Little Man in the Cerebral Machine: The Story of Penfield’s Homunculus
William Feindel, MD
Membership rates are as follows:
(The International Rate Guide according to the World Bank may be found on the NCS website www.neurocriticalcare.org/rateguide by clicking on ‘Join NCS’.)

Physicians who:
• Reside in the US and countries not listed on the International Rate Guide - $250/year
• Reside in World Bank Group A countries - $175/year
• Reside in World Bank Group B countries - $40/year

Healthcare Professionals, Pharmacists, Physician Assistants, Nurses who:
• Reside in the US and countries not listed on the International Rate Guide - $150/year
• Reside in World Bank Group A countries - $100/year
• Reside in World Bank Group B countries - $25/year

*Residents, Fellows, Students who:
• Reside in the US and countries not listed on the International Rate Guide - $100/year
• Reside in World Bank Group A countries - $70/year
• Reside in World Bank Group B countries - $15/year

*Note to all residents, fellows, and students: You must submit verification from your Program Director to the NCS office either by fax (952-545-6073) or by email at info@neurocriticalcare.org.

**Industry Professionals:
• $250/year

**Member type does not include complimentary job postings on the NCS website.

Accreditation Statement for Jointly Sponsored Activities
This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the Minnesota Medical Association and the Neurocritical Care Society. The Minnesota Medical Association (MMA) is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education.

Designation of Credit Statement for Jointly Sponsored Activities
The Minnesota Medical Association designates the 9th Annual NCS Meeting for a maximum of 28.25 AMA PRA Category 1 Credit(s)™. Attendees should claim only the credit commensurate with the extent of their participation in the activity.

Contact Information:
Neurocritical Care Society
5841 Cedar Lake Road, Suite 204
Minneapolis, MN 55416
Tel: (952) 646-2034
Fax: (952) 545-6073
Website: www.neurocriticalcare.org
Email: info@neurocriticalcare.org