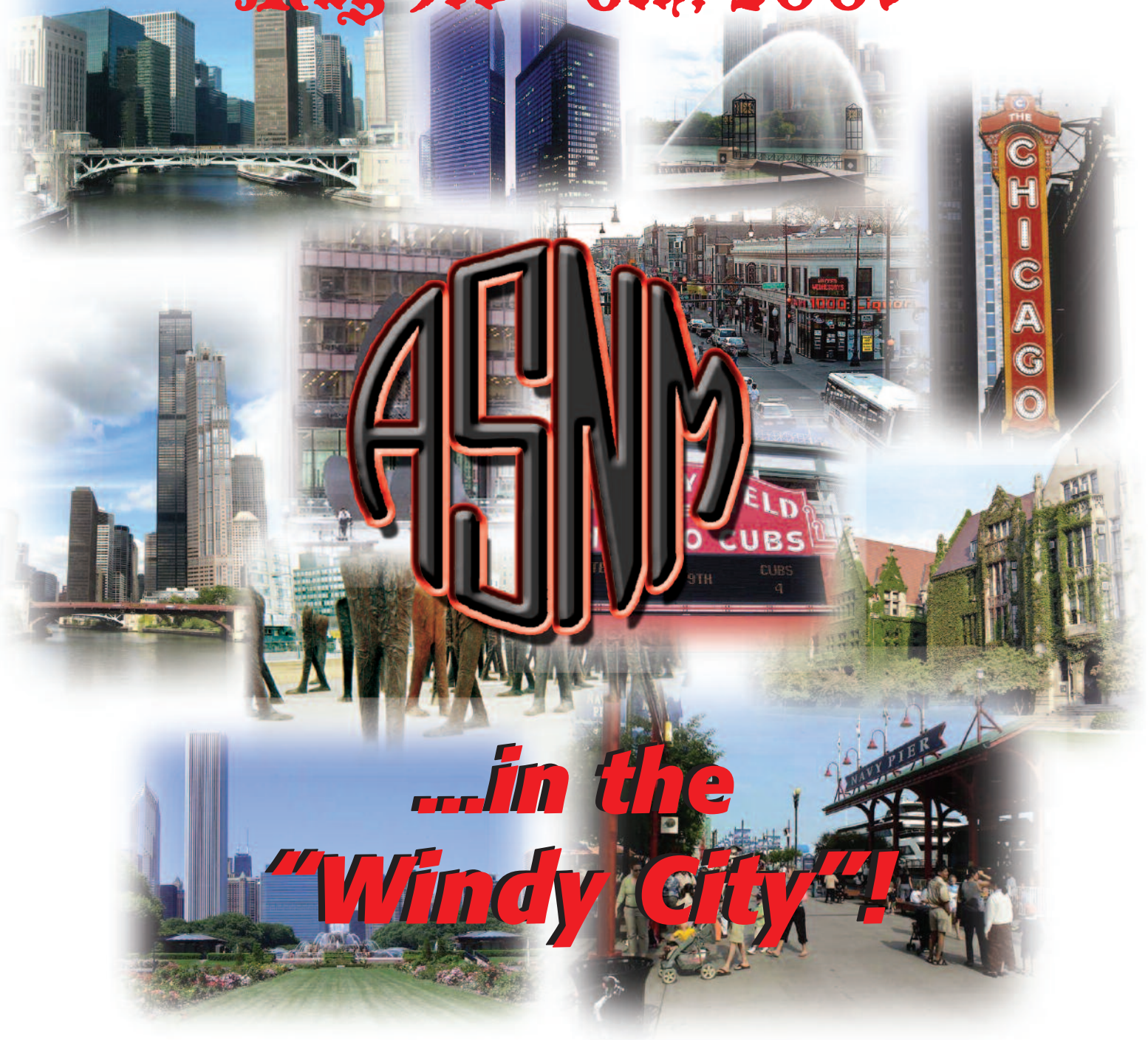


The 18th Annual Meeting of  
**American Society of  
Neurophysiological Monitoring**  
at the **Swissôtel in Chicago**  
**May 3rd - 6th, 2007**

**ASN**

**...in the  
"Windy City"!**





# 18th Annual Meeting of the American Society of Neurophysiological Monitoring **COMMITTEE MEMBERS**



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To register for the ASN 18th Annual Meeting go to:  
<http://cme.uchicago.edu/courses/index.html>

## **OUR 2007 PROGRAM** **THURSDAY, MAY 3RD**

<b>7:30 AM - 6:00 PM</b>	<b>----- ASN Board Meeting</b> (The Vevey Board Room --- 3rd Floor)
<b>7:30 AM - 6:00 PM</b>	<b>----- Early Registration</b> (The Grand Ballroom Foyer --- Level GB)
<b>5:00 PM - 7:00 PM</b>	<b>----- CNIM Examination Review</b> <b>Rebecca Clark Bash, MS, REEG/EPT, CNIM</b> <b>KnowLedge Plus, Inc.</b> <b>Lincolnshire, IL</b> (The William Tell Room --- 3rd Floor)



*University of  
Chicago in  
1907*



# FRIDAY MORNING, MAY 4TH

## BASIC SESSION --- GRAND BALLROOM 3

### 8:00 Welcome and Announcements

**Moderators:** Emmanuel Nenonene, PhD  
Mark Peters, MA, CNIM

### 8:05 "CNS Anatomy"

**Kent Rice, MS, REPT, CNIM, DABNM**  
Quality Assurance Director  
Biotronic Corporation  
Ann Arbor, MI

### 8:45 "Neuro-Anesthesia"

**Katarzyna Luba, MD**  
Assistant Professor  
Department of Anesthesia  
The University of Chicago  
Chicago, IL

### 9:25 "Cranial Nerve Monitoring"

**Kiara Ebinger, PhD, FAAA, CNIM**  
Director of Training and Education  
NVMS, LLC,  
Hendersonville, TN

### 10:05 "Spinal Cord Monitoring"

**Leisha L. Osburn, BS, REEG/EPT, CNIM**  
Neurophysiology Lab  
Clarian Health Partners  
Methodist Hospital  
Cincinnati, IN

**10:45 to 11:00 🍷 BREAK**

## ADVANCED SESSION --- GRAND BALLROOM 1

### 8:00 Welcome and Announcements

**Moderators:** Berton Braverman, PhD, REPT, CNIM  
Maureen Stokes, MA, MHS, DABNM

### 8:05 "Surgery for Scoliosis"

**Purnendu Gupta, M.D.**  
Associate Professor  
Department of Surgery  
The University of Chicago  
Chicago, IL

### 8:45 "Monitoring Scoliosis Surgery"

**Ron Leppanen, PhD, DABNM FASNM**  
Clinical Neurophysiologist  
Knoxville Neurology Clinic  
Knoxville, TN

### 9:25 "Spinal Surgery"

**Fred Sweet, MD**  
Rockford Spine Center  
Rockford, IL

### 10:05 "Spinal Cord Perfusion"

**Tod Sloan, MD, MBA, PhD, FASNM**  
Professor  
Department of Anesthesia  
The University of Colorado  
Denver, CO

**10:45 to 11:00 🍷 BREAK**

**11:00-12:00 AM ----- Moderator: Mark Stecker, MD, PhD, DABNM, FASNM**

### Presidential Guest Lecturer

(The Grand Ballroom)

### "Monitoring in the ICU and Critical Care Setting"

**Ronald G. Emerson, M.D.**

Professor, Department of Neurology  
Columbia Comprehensive Epilepsy Center  
Columbia University  
New York City, NY



**12:00 to 1:30**  
**Lunch on Your Own**

# FRIDAY AFTERNOON, MAY 4TH

## BASIC SESSION CONTINUED --- GRAND BALLROOM 3

**Moderators:** Emmanuel Nenonene, PhD  
Charles Yingling, PhD, DABNM

### 1:30 "Cardiovascular Monitoring"

**Gregory E. Niznik, MSc, CNIM, DABNM**  
*Director*  
*Allied Neurodiagnostics*  
*Marietta, GA*

### 2:00 "Case Studies"

**Michelle Nagel BS, REEG/EPT, CNIM**  
*President*  
*Synapse Neuromonitoring, Inc.*  
*Greenfield, IN*

### 2:30 "Monitoring Case Scenario"

**Brenda Popp R EEG/EP T, CNIM**  
*IOM Coordinator*  
*St. Vincent Hospital*  
*Indianapolis, IN*

**3:00 to 3:30 🍷 BREAK**

### 3:30-5:30 "Problem Based Learning"

*(Grand Ballroom 3)*

**Organizer:**

**Donald H. York, PhD, FASNM**  
*Director*  
*Department of Neuroscience*  
*St. John's Mercy Medical Center*  
*St. Louis, MO*

## ADVANCED SESSION CONTINUED --- GRAND BALLROOM 1

**Moderators:** Michael M. McCaffrey, PhD, DABNM  
V. Leo Towle, PhD, FASNM

### 1:30 GUEST LECTURE:

#### "Minimally Invasive Spinal Procedures"

**Richard Fessler, MD**  
*Chief, Section of Neurosurgery*  
*The University of Chicago*  
*Chicago, IL*

### 2:30 "The Neurologist's Perspective"

**Steven M. Zak, MD**  
*Medical Director of Neurophysiology*  
*CINN Medical Group, Chicago, IL*  
*Instructor of Clinical Neurology*  
*Northwestern University Medical School*  
*Chicago, IL*

**3:30 Moderators:** Leisha Osburn, BS REEGT/EPT, CNIM  
Jay Shils, PhD, DABNM

### "Transcranial Doppler Surgical Monitoring"

**Harvey Edmonds, PhD, DABNM, FASNM**  
*Director of Cardiovascular Services*  
*Surgical Monitoring Associates, Inc.*  
*Springfield, PA*

**4:15**

### Research Abstract Presentations

**Grand Ballroom 1**

*Details on page eight.*

**3:00 to 3:30 🍷 BREAK**



**5:30 to 8:30**

## ASNM Evening Reception

**The Alpine Room**

*Music by: Dos Geckos*  
*(violin and guitar duo)*

**Featuring:**  
**Bill Barns & Larry Perkins**



# SATURDAY MORNING, MAY 5TH

7:00-8:00 **"Breakfast with the Experts"**

*(The Alpine Room)*

**Moderator:**

**Gayle Hicks, PhD, CCC-A, DABNM, FASNM**

*Discuss your specific problems and issues  
with highly experienced leaders in  
intraoperative monitoring.*

## THE GRAND BALLROOM

8:00-8:45 **Moderators:**

**Anthony Sestokas, PhD, DABNM, FASNM**

**"Motor Evoked Potentials during  
Spinal Surgery"**

**Vedran Deletis, MD, PhD**

*Director*

*Division of Intraoperative Neurophysiology  
Hyman-Newman Institute for Neurology  
and Neurosurgery  
New York City, NY*

8:45-9:45 **Presentations of Original Research:**

**Moderators:**

**Nguyen D. Kien, PhD, DABNM**

**Cathleen Zippay, REEGT/EPT, REDT, CNIM**

*(See details on page eight.)*

9:45-10:15 **"Cortical Stimulation for Stroke"**

**Jeffery R. Balzer, PhD, DABNM, FASNM**

*Associate Professor*

*Department of Neurosurgery*

*University of Pittsburgh*

*Pittsburgh, PA*

10:15 to 10:30  **BREAK**

10:30-11:15 **GUEST LECTURE:**

**Moderator:**

**Chuck Yingling, PhD, DABNM, FASNM**

**"Motor Cortex  
Stimulation for Pain"**

**Jeffrey E. Arle, MD, PhD**

*Lahey Clinic*

*Burlington, MA*

11:15-12:00 **Moderator:**

**Chuck Yingling, PhD, DABNM, FASNM**

**"Mapping Motor Nuclei in the  
Brainstem"**

**Vedran Deletis, MD, PhD**

*Director*

*Division of Intraoperative Neurophysiology  
Hyman-Newman Institute for Neurology  
and Neurosurgery  
New York City, NY*

12:00 to 1:15

**ASNM Lunch**

**The Alpine Room  
and more!**

# SATURDAY AFTERNOON, MAY 5TH

## THE GRAND BALLROOM

1:15-2:15 ----- Moderator: **Mark Stecker, MD, PhD, DABNM, FASNM**

**The Digitimer Lecture:**

*(The Grand Ballroom)*

**"Axonal Excitability:**

**From the Corticospinal System to the Peripheral Nerve "**

**David Burke, AO, FAA, FTSE**

*Professor and Dean of Research and Development  
Faculty of Medicine  
The University of Sydney  
Sydney, Australia*



# SATURDAY AFTERNOON continued, MAY 5TH

## THE GRAND BALLROOM

**2:15-3:00** - - - - - **New Developments in Intraoperative Monitoring**

**Monitors:** Matthew A. Cotton, REPT, CNIM  
Louis Journee, PhD

**2006 Publications about EEGs** - - - - - Mark M. Stecker, MD, PhD, DABNM, FASNM

**2006 Publications about BAEPs** - - - - - Paul DeSomma, MA, CCC-A, DABNM

**2006 Publications about SEPs** - - - - - Roger S. Noss, PhD, CNIM, DABNM

**2006 Publications about MEPs** - - - - - Jeffrey R. Balzer, PhD, DABNM, FASNM

**3:00 to 3:15** ❤️ **BREAK**

**3:15-4:00** **GUEST LECTURE:**

*Moderator:*

Mark M. Stecker, MD, PhD, DABNM, FASNM

**"Monitoring During Aortic Stent Placement"**

Aatif Husain, MD  
President, ABRET  
Department of Neurology  
Duke University  
Durham, NC

**4:30-5:30** **SPECIAL LECTURE:**

*Moderator:*

Mark M. Stecker, MD, PhD, DABNM, FASNM

**"Intraoperative MRI"**

Christopher Nimsy, MD  
Vice Chair of Neurosurgery  
University Erlangen-Nurnberg in Germany  
Erlangen, Germany

**4:00-4:30** **GUEST LECTURE:**

**"Near-Infra Red Spectroscopy"**

John M. Murkin, MD, FRCPC  
Professor of Anesthesiology  
Director of Cardiac Anesthesiology  
University of Western Ontario  
London, ON

**5:30 to 6:30**

**ASNM**

**Business Meeting**

The Grand Ballroom

**Plan a Final Saturday  
Evening Dinner  
with Friends!**



# SUNDAY MORNING, MAY 6TH

## THE GRAND BALLROOM

7:30-8:45 ----- Moderators: Joanna Nastal, MA, R.EEG.T, CNIM  
Faisal Jahangiri, MD, CNIM, DABNM

### Presentations of Original Research: (The Grand Ballroom)

(See details on page eight.)

#### 8:45-9:15 Intraoperative Monitoring Practice Issues

**Moderator:**

Michael McCaffrey, PhD, CNIM,  
DABNM, FASNM

#### "Billing for Intraoperative Monitoring"

Marianna Hegedus  
The University of Pittsburgh  
Pittsburgh, PA

#### 9:15-9:45 Forum on Billing Issues

Bernard A. Cohen, PhD, DABNM, FASNM  
Marianna Hedges  
Gail Hicks, PhD, FASNM, DABNM  
Robert J. Scabassi, MD, FASNM, DABNM

#### 9:45-10:30 GUEST LECTURE:

**Moderator:**

Vernon L. Towle, PhD, FASNM

#### "Anesthesia for TcMEPs"

Martin Dauber, MD  
Professor  
Department of Anesthesia  
The University of Chicago  
Chicago, IL

#### 11:10 "Remote Monitoring"

Steven M. Zak, MD

Medical Director of Neurophysiology  
CINN Medical Group, Chicago, IL  
Instructor of Clinical Neurology  
Northwestern University Medical School  
Chicago, IL

#### 11:30 Panel Discussion of Issues in Remote Monitoring

Maria Baldwin, MD

Jeffrey K. Balzer, PhD, DABNM, FASNM

Terrence E. Patterson, PhD,  
DABNM, FASNM

Robert J. Scabassi, MD, PhD,  
DABNM, FASNM

Anthony K. Sestokis, PhD,  
DABNM, FASNM

Steven Zak, MD

#### 11:55-12:00 Closing Remarks

Robert E. Minahan, MD

President, ASNM  
Associate Professor  
Department of Neurology  
Georgetown University Hospital  
Washington, DC

**10:30 to 10:45 🍷 BREAK**

#### 10:45 Remote Monitoring Forum

**Moderator:**

Donald H. York, PhD, DABNM, FASNM

#### "Remote Monitoring"

Robert J. Scabassi, MD, PhD,  
DABNM, FASNM

Professor

Director of Center for Clinical  
Neurophysiology  
University of Pittsburgh Medical Center  
Pittsburgh, PA



# Presentations of Original Research

**FRIDAY AFTERNOON MAY 4TH**

**THE GRAND BALLROOM 1**

**Moderators:** Leisha Osburn, BS, REEGT/EPT, CNIM 🍷 Jay Shils, PhD, DABNM

- 4:15-4:30:** H. B. Calder, Ph.D., Oheneba Boachie-Adjei, M.D., Angela Fuller, Ky Calder, M.S., Ben Harrison, Jason Fanselau, James Watt, David Haverstick PM. **The Feasibility and Efficacy of Intraoperative Neural Monitoring in Developing Countries.**
- 4:30-4:45:** Wai-Wang Chau, MSc; Winnie Chiu-Wing Chu, MD; Xia Guo, MD; Bobby Kin-Wah Ng, MD; King-Lok Liu, MD; Tsz-Ping Lam, MD; Gene Chi-Wai Man, BSc; Annie Tsz-Ha Cheng, MCM; Benson Hiu-Yan Yeung, PhD; Jack Chun-Yiu Cheng, MD, FRCS. **Vestibular dysfunction in Severe Adolescent Idiopathic Scoliosis (AIS) patients – correlation with somatosensory evoked potential (SEP) in 122 Chinese adolescent girls.**
- 4:45-5:00:** Matthew TV Chan, FANZCA, Tony Gin, MD, Joseph MK Lam, FRCS, Michael Tong, MD. **Effects of partial neuromuscular block on intraoperative facial nerve monitoring during excision of vestibular schwannoma**
- 5:00-5:15:** H. Louis Journée, M.D., Ph.D. **The anode-cathode paradox of transcranial electrical stimulation reflects a basic neurophysiological property axons related to their orientation.**
- 5:15-5:30:** Stan Skinner, MD, Carisma Mtenga, MS, Ensor Transfeldt, MD. **The Novel Use of Suprasegmental free-run EMG to Promptly Detect Spinal Motor Tract Injury during Decompression of the Cervical/Thoracic Spine.**

**SATURDAY MORNING MAY 5TH**

**The Grand Ballroom**

**Moderators:** Nguyen D. Kien, PhD, DABNM 🍷 Cathleen Zippay, REEGT/EPT, REDT, CNIM

- 8:45-9:00:** Stan Skinner, MD., Ensor Transfeldt, MD. **Free-run EMG detects mechanically-induced suprasegmental spinal motor tract injury before myogenic transcranial electrical motor evoked potential (MEP) Loss: Experience with a porcine model.**
- 9:00-9:15:** H. Louis Journée, MD, Ph.D., W.Tyler Rath, MSc, Leon D Li, Mingui.R. Sun Ph.D., Robert J. Scwabassi, MD, Ph.D., Andrea Szelényi, M.D. **Influence of scalp skull and arachnoid fluid on the excitability of axons in the cortex and corticospinal tract at electrical stimulation applied between extracranial and cortical locations.**
- 9:15-9:30:** Vernon L. Towle, Ph.D., Hyun-Ah Yoon, B.A., J., Michael Castelle, B.S., John Hunter, Ph.D., Christopher Edgar, Ph.D., Patricia Ogden, R.N., David Frim, M.D., Ph.D. and Michael Kohrman, M.D. **Language Cortex Identified Through Localized Task-Specific ECoG Gamma Activity.**
- 9:30-9:45:** C.R. Feltz, Au.D, CNIM, S. Magge, MD, J. Arle, MD, Ph.D, C. Martin, CNIM M. Moul, J.L. Shils, Ph.D, D.ABNM. **Persistently electrified pedicle stimulation during minimally invasive lumbo-sacral fixation.**

**SUNDAY MORNING MAY 6TH**

**The Grand Ballroom**

**Moderators:** Joanna Nastal, MA, R.EEG.T, CNIM 🍷 Faisal Jahangiri, MD, CNIM, DABNM

- 7:30-7:45:** Louis H. Journée, MD, PhD, Leon D Li, Mingui Sun Ph.D, W.Tyler Rath, MSc, Robert J. Scwabassi M.D, Ph.D, Ir Arjen van Hulzen. **Computation of the sites of activation on the corticospinal tract during transcranial stimulation using diffusion tensor imaging in individual cases.**
- 7:45-8:00:** A. Szelényi, M.D., S. Herrlich, cand. Dipl. ing., H. L. Journée, M.D. Ph.D. **Experimental study to the course of threshold currents, voltages and electrode impedances during stepwise stimulation between skin surface and the human cortex.**
- 8:00-8:15:** Wai-Wang Chau, MSc; Xia Guo, MD; Winnie Chiu-Wing Chu, MD; Bobby Kin-Wah Ng, MD; King-Lok Liu, MD; Tsz-Ping Lam, MD; Jack Chun-Yiu Cheng, MD, FRCS. **Somatosensory evoked potential (SEP) in Adolescent Idiopathic Scoliosis (AIS): Comparison among different curve severity and normal control**
- 8:15-8:30:** A. Szelényi, M.D; V. Seifert, M.D. Ph.D. **Comparison of direct cortically and transcranially elicited motor evoked potentials for intraoperative monitoring in supratentorial surgery.**
- 8:30-8:45:** Tod B. Sloan, MD MBA PhD FASNM. **Mechanisms of anesthetic effect on evoked responses.**



# Special Interest Breakout Groups

**SATURDAY, MAY 5TH**

## 10:30-12:00 "Intraoperative Monitoring in Developing Countries"

**Organizer:** David E. Morledge, PhD, CCC-A, DABNM, FASNM  
Past President ASNM  
President Neurostatus Inc.  
Boise, Idaho

## 1:00-6:00 "The Microelectrode Recording Group"

**Organizer:** Terry Patterson PhD  
Associate Professor  
Department of Neurosurgery  
Penn State University  
Hershey, PA  
Patterson NeuroConsulting Ltd.



1. Donald J. Crammond, Ph.D. {Dept. Neurology, Univ. Pittsburg, PA}. **The effects of anesthetic agents on MER from animal models, mostly non-human primat**
2. Zachary T. Levine, M.D. {Washington Brain & Spine Institute, DC}, Terry Patterson, Ph.D., Kumu Hendricks, M.D. {Dept. Anesthesiology, Univ. Maryland}. **Anesthesia in DBS Surgeries for different disease entities; General anesthetic as well as awake cases**
3. Jay Shils, Ph.D. {Lahey Clinic, Burlington MA}, Adam Koss, B.S. {Mount Sinai Medical Center NYC}, Jeffrey Arle {Lahey Clinic, Burlington MA} & Ron Alterman {Mount Sinai Medical Center NYC}. **Comparison of Dexmedetomidine to Propofol or no anesthetic, during MER in DBS surgery.**
4. Keith Ruskin, M.D. {Depts. Anesthesiology & Neurosurgery, Yale Univ. CT}. **Cellular mechanisms of action of anesthetic agents used in DBS surgeries.**
5. Bill Hutchinson, Ph.D. {Dept. Surgery & Physiology, Univ. Toronto, Canada}. **Effects of Propofol on Pallidal recordings during dystonia DBS surgery.**
6. Jurg Jaggi, Ph.D., Gordon Baltuch, M.D. Ph.D. {Center for Functional & Restorative Neurosurgery, Univ. Penn. PA}. **Surgical experience in a large cohort of DBS patients with PD, ET and other disorders.**

## PANEL DISCUSSION

# The Board of Directors of the ASNM

is pleased to announce that three awards will be given at the 2007 meeting:

The **ASNM Award of Merit** will be presented.

The first **Mary Stecker Award** will be presented.

The first **Special Research Award** will be presented.