3rd International Workshop on Advances in Electrocorticography

Thursday, November 10 - Friday, November 11, 2011

Hilton Garden Inn
Washington DC/U.S. Capital
1225 First Street NE
Washington, DC, USA 20002
Who Should Attend

This program has been carefully designed to appeal to two target audiences. The program will be of interest to the scientist with an interest in theory and application of electrocorticographic (ECoG) signals recorded from the surface of the brain in humans or animals. The program will also have a strong appeal to neurologists, neurosurgeons, and clinical neurophysiologists whose practice involves functional brain mapping for epilepsy surgery and non-epilepsy lesionectomies.

About the Symposium

Increasing understanding of brain function and increasingly sophisticated methods for recording and interpreting signals from the surface of the brain (electrocorticography (ECoG)) are opening up exciting new opportunities for using these signals for clinical or research purposes. These developments have sparked tremendous interest in human and animal ECoG recordings to investigate the basis of normal brain function related to motor control, language, or memory, as well as of abnormal function such as epileptic seizures. This workshop reviews recent research findings in this area and demonstrates examples for the emerging translation of these new findings into clinical care.

This two-day workshop is held as an official satellite to the Society of Neuroscience (SfN) meeting in Washington, DC. It follows a hugely successful informal workshop at the American Epilepsy Society Annual Meeting in 2008, the first formal ECoG workshop in Upstate New York in 2009, and the second ECoG workshop prior to the SfN meeting in San Diego in 2010.

Learning Objectives

At the conclusion of this conference, the participant should be able to:

• Discuss the nature of brain signals recorded electrocorticographically (ECoG).

• Know about emerging understanding of ECoG and of emerging techniques to record it.

• Contrast standard electrical brain stimulation and real-time functional ECoG mapping.

• Discuss the role of high frequency ECoG in functional assessment of brain activity.

• Recognize the emerging value of high frequency EEG recordings in the evaluation of epilepsy surgery candidates and lesionectomy candidates.

Accreditation

Albany Medical College is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Albany Medical College designates this live activity for a maximum of 12.75 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.
Tuition

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<tr>
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<th>October 1, 2011:</th>
<th>After October 1, 2011:</th>
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<tbody>
<tr>
<td>Single Day Registration</td>
<td>$175.00</td>
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Tuition includes admission to the symposium, access to an on-line course syllabus, and lunch and beverage breaks.

Tuition Refund Policy

Tuition refunds, minus a $35.00 administrative charge, are possible if notification is received by October 1. After that date, one half of the paid registration fee, minus the administrative charge, can be refunded. Refunds will be processed upon receipt of a written request.

Need Information?

For information regarding the conference, contact the Office of Continuing Medical Education by phone at (518) 262-5828, fax at (518) 262-5679 or e-mail at pricej@mail.amc.edu.

For emergency calls during the conference, call the Hilton Garden Inn at (202) 408-4870.

Web Sites

Albany Medical Center: www.amc.edu

Hilton Garden Inn: www.hiltongardeninn.com/DC

Confirmation

Registrations will be confirmed by e-mail. Should you register and not receive a confirmation notice, call the Office of Continuing Medical Education to be sure we have received your information.

Special Needs

Should you have a disability, dietary restrictions, or require other special arrangements, please call the Office of CME by November 1 to discuss your needs.

Attire

Attire during the conference sessions is neat casual. Since everyone has a different comfort level, we suggest that you bring a sweater or light jacket.

On-Line Syllabus

Printed syllabus material will NOT be available at the conference. The syllabus will be available on-line prior and after the conference. In order to receive access to the syllabus material you must provide your e-mail address on the registration form. You will receive access information via e-mail. If you do not receive access information please call (518) 262-5828.
# 3rd International Workshop on Advances in ElectroCorygraphy

**Day 1 - November 10, 2011**

## Introduction to the Workshop

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>8:45a-9:00a</td>
<td>Introductory Comments</td>
<td>Anthony Ritaccio, M.D. and Gerwin Schalk, Ph.D.</td>
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<tr>
<td>9:00a-9:45a</td>
<td>Keynote Address</td>
<td>Robert T. Knight, M.D., University of California, Berkeley</td>
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<tr>
<td>9:45a-10:00a</td>
<td>Coffee Break</td>
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## Basics of ECoG Recordings

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>10:00a-10:30a</td>
<td>Instrumentation</td>
<td>Peter Brunner, M.S., Wadsworth Center/Albany Medical College</td>
</tr>
<tr>
<td>10:30a-11:15a</td>
<td>Passive ECoG Sensors</td>
<td>Justin Williams, Ph.D., University of Wisconsin at Madison</td>
</tr>
<tr>
<td>11:15a-11:45a</td>
<td>Active Sensors</td>
<td>Jonathan Viventi, Ph.D., University of Pennsylvania</td>
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<td>11:45a-1:00p</td>
<td>Lunch</td>
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## Contemporary Clinical ECoG

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<tbody>
<tr>
<td>1:00p-1:45p</td>
<td>Chronic and Intraoperative ECoG</td>
<td>Jeffrey Ojemann, M.D., University of Washington</td>
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## Current Understanding of ECoG Physiology

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<tr>
<td>1:45p-2:30p</td>
<td>Tutorial: Cortical ECoG Physiology</td>
<td>Bradley Voytek, Ph.D., University of California, San Francisco</td>
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<tr>
<td>2:30p-3:00p</td>
<td>Relationship of ECoG and fMRI</td>
<td>Nick Ramsey, Ph.D., University Medical Center Utrecht</td>
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<tr>
<td>3:00p-3:15p</td>
<td>Coffee Break</td>
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## Topics in ECoG Cognitive Neuroscience I

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<tr>
<td>3:15p-3:45p</td>
<td>Default Network</td>
<td>Josef Parvizi, M.D., Ph.D., Stanford University</td>
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<tr>
<td>3:45p-4:15p</td>
<td>Visual Spatial Attention/Intention</td>
<td>Aysegul Gunduz, Ph.D., Wadsworth Center / Albany Medical College</td>
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<tr>
<td>4:15p-4:45p</td>
<td>Human Visual Perception</td>
<td>Michael Beauchamp, Ph.D., University of Texas Medical School at Houston</td>
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| 4:45p-5:15p | Motor Representation in ECoG | Jochem W. Rieger, Dr. habil.  
University of California, Berkeley/ University of Magdeburg |
### INTRODUCTION TO THE WORKSHOP

8:45a-9:00a  
**Introductory Comments**  
*Anthony Ritaccio, M.D. and Gerwin Schalk, Ph.D.*

### TOPICS IN ECOG COGNITIVE NEUROSCIENCE II

9:00a-9:30a  
**Auditory Processing/Anticipation**  
*Disha Gupta, Ph.D., Wadsworth Center / Albany Medical College*

9:30a-10:00a  
**Language**  
*Edward Chang, M.D., University of California, San Francisco*

10:00a-10:15a  
**Coffee Break**

10:15a-10:45a  
**Selective Synchronization Across Monkey Visual Areas**  
*Conrado A. Bosman, M.D., Ph.D., University of Amsterdam*

### EMERGING CLINICAL APPLICATIONS

10:45a-11:30a  
**General Principles of ECoG Functional Mapping**  
*Nathan Crone, M.D., Johns Hopkins University*

11:30a-12:00p  
**ECoG Real-Time Functional Mapping**  
*Anthony Ritaccio, M.D., Albany Medical College*

12:00p-1:00p  
**Lunch**

### PATHOLOGICAL (ICITAL) RECORDINGS IN EPILEPSY

1:00p-1:45p  
**Current Understanding of Epileptic Multiscale Recordings**  
*Brian Litt, M.D., University of Pennsylvania*

1:45p-2:30p  
**Experiences from the NeuroPace Trial**  
*Brett Wingeier, Ph.D., NeuroPace, Inc.*

2:30p-2:45p  
**Coffee Break**

### BRAIN-COMPUTER INTERFACES

2:45p-3:30p  
**ECoG-Based Brain-Computer Interfaces in Humans**  
*Eric Leuthardt, M.D., Washington University in St. Louis*

3:30p-4:00p  
**ECoG-Based Brain-Computer Interfaces in Monkeys**  
*Dan Moran, Ph.D., Washington University in St. Louis*

### SUMMARY AND CONCLUSIONS

4:00p-4:45p  
**Perspectives on ECoG Research and Application**  
*Gerwin Schalk, Ph.D., Wadsworth Center*
Faculty

Course Directors

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Gerwin Schalk, Ph.D.
Research Scientist
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Houston, TX, USA

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Albany, NY, USA

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Helen Wills Neuroscience Institute
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St. Louis, MO, USA

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St. Louis, MO

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Seattle Children's Hospital
University of Washington
School of Medicine
Seattle, WA

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Stanford, CA, USA

Nick F. Ramsey, Ph.D.
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Rudolf Magnus Institute of Neuroscience
Department of Neurology and Neurosurgery
Division of Neuroscience
University Medical Center Utrecht
Netherlands

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Visiting Researcher and Research Scientist
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San Francisco, CA, USA

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NeuroPace, Inc.
Mountain View, CA, USA

Justin Williams, Ph.D.
Associate Professor
Biomedical Engineering
College of Engineering
University of Wisconsin - Madison
Madison, WI
CONFERENCE REGISTRATION FORM
3RD INTERNATIONAL WORKSHOP ON ADVANCES IN ELECTROCORTICOGRAPHY

TUITION (Only paid registrations can be accepted.)

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Name & Degree (as to appear on conference materials):

__________________________________________

CME Credit Tracking:

<table>
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<th>Month of Birth</th>
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<th>First 4 Characters of First Name</th>
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Specialty:

Institution/Affiliation:

Department:

Business Address:

City: ____________________________ State: ________ Zip: __________

Business Phone: ____________________________ Business Fax: __________

Home Address:

City: ____________________________ State: ________ Zip: __________

Home Phone: ____________________________

E-mail Address (You must provide an e-mail address to gain access to the on-line syllabus):

__________________________________________

PLEASE REGISTER ME FOR THE FOLLOWING SESSIONS:

☒ Thursday, November 10, 2011  ☐ Friday, November 11, 2011  ☐ Both Thursday & Friday, November 10 & 11, 2011

PLEASE INDICATE METHOD OF PAYMENT:

☒ My Check for $_______, payable to Albany Medical College is enclosed.

☒ Please charge my credit card for the amount of $___________. (For credit card payment, complete information below.)

☐ MasterCard ☐ Visa ☐ American Express ☐ Discover

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Signature: ____________________________

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RETURN THIS FORM WITH PAYMENT TO:

Office of Continuing Medical Education, Electrocorticography Workshop,
Albany Medical College, Mail Code – 1 J408, 47 New Scotland Avenue,
Albany, New York 12208-3479

Fax: (518) 262-5679 registrations accepted for Visa, MasterCard, Discover and American Express only. Fax registrations without credit card payment cannot be processed. This is a secure fax. Please register one person per form. This form may be photocopied.
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