5th International Workshop on Advances in Electrocoptography

Thursday, November 7 - Friday, November 8, 2013
Marriott San Diego - Gaslamp Quarter
660 K Street, San Diego, CA 92101 USA
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, or clinical neurophysiologists whose practice involves functional brain mapping for epilepsy surgery or 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 activity related to motor, perceptual, or cognitive function, as well as of abnormal activity such as epileptic seizures. This workshop reviews recent research findings in these areas 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 annual meeting of the Society for Neuroscience (SfN) in New Orleans, Louisiana. 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; the second ECoG workshop, which was held prior to the SfN meeting in San Diego, CA, in 2010; the third ECoG workshop, which was held prior to the SfN meeting in Washington, DC, in 2011; and the fourth ECoG workshop, which was held prior to the SfN meeting in New Orleans, LA, in 2012.

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 physiology and of emerging techniques to record it.
• Have an overview of current efforts in ECoG-based neuroscience.
• 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 ECoG 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 11.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
Tuition

<table>
<thead>
<tr>
<th>Tuition</th>
<th>By October 15, 2013:</th>
<th>After October 15, 2013:</th>
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<tbody>
<tr>
<td>Single Day Registration</td>
<td>$185.00</td>
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Tuition includes admission to the symposium lunch and beverage breaks.

Tuition Refund Policy

Tuition refunds, minus a $35.00 administrative charge, are possible if notification is received by October 15. 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 San Diego Marriott – Gaslamp Quarter at (619) 696-0234.

Web Sites

Conference Website: www.ecog.info
Marriott Gaslamp Quarter: www.sandiegogaslamphotel.com
Albany Medical Center: www.amc.edu

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 September 15 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. If syllabus material is available, it will be posted 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.
# 5th International Workshop on Advances in Electrocorticography

## Day 1 - Thursday, November 7, 2013

### 8:15a-8:30a  Welcome and Introduction  
*Anthony Ritaccio, MD, and Gerwin Schalk, PhD*

### 8:30a-9:15a  Keynote Address  
*Sabine Kastner, MD, PhD, Princeton University*

### 9:15a-9:30a  Break

## I. Clinical

### 9:30a-10:15a  Clinical Primer  
*Lawrence J. Hirsch, MD, Yale School of Medicine*

### 10:15a-10:30a  Break

### 10:30a-11:15a  Active and Passive: Mapping Cortical Function At the Bedside  
*Anthony Ritaccio, MD, Albany Medical College  
Peter Brunner, PhD, Wadsworth Center and Albany Medical College*

### 11:15a-11:30a  Break

### 11:30a-12:15p  ECoG, fMRI, EBS, and Localization of Function in the Human Brain: A New Era  
*Josef Parvizi, MD, PhD, Stanford University*

### 12:15p-1:15p  Lunch

### 1:15p-2:00p  What is Testing the Brain Telling Us About Treating the Brain  
*Ronald Lesser, MD, Johns Hopkins School of Medicine*

### 2:00p-2:15p  Break

## II. Science

### 2:15p-3:00p  Tutorial on ECoG Physiology  
*Kai Miller, MD, PhD, Stanford University*

### 3:00p-3:15p  Break

### 3:15p-4:00p  Tutorial on ECoG Methodologies  
*Aysegul Gunduz, PhD, University of Florida*

### 4:00p-4:15p  Break

### 4:15p-5:00p  ECoG–fMRI Correspondence of Cortical Functional Mapping  
*Bo Hong, PhD, Tsinghua University*

### 5:00p-5:15p  Break

## III. Engineering

### 5:15p-6:00p  ECoG Electrodes  
*Thomas Stieglitz, PhD, University of Freiburg*
ADVANCES IN ELECTROCORTICOGRAPHY

DAY 2 - FRIDAY, NOVEMBER 8, 2013

8:15a-8:30a Welcome and Introduction
Gerwin Schalk, PhD, and Anthony Ritaccio, MD

I. CLINICAL

8:30a-9:15a Mapping Pathological Oscillations in Human Epileptogenic Brain
Gregory A. Worrell, MD, PhD, Mayo Clinic

9:15a-9:30a Break

II. SCIENCE

9:30a-10:15a Multimodal ECoG-Based Modeling
Terrence J. Sejnowski, PhD, Salk Institute

10:15a-10:30a Break

10:30a-11:15a Frontal Cortex and Cognition: Evidence from ECoG
Robert T. Knight, MD, UC Berkeley

11:15a-11:30a Break

11:30a-12:15p The Electrophysiology of Human Memory Representations
Joshua Jacobs, PhD, Drexel University

12:15p-1:15p Lunch

1:15p-2:00p Spatial and Temporal Dynamics of ECoG Related to Visual Stimuli
Kyousuke Kamada, MD, PhD, Asahikawa Medical University

2:00p-2:15p Break

2:15p-3:00p ECoG Functional Networks
Gerwin Schalk, PhD, Wadsworth Center

3:00p-3:15p Break

3:15p-5:00p 2nd International Workshop on Functional Mapping with ECoG

5:00p Reception

ACKNOWLEDGMENT

We gratefully acknowledge the following organizations for providing support for this conference:
Albany Medical College, CorTec, Fondazione Neurone, g.tec, PMT, US Army Research Office, Wadsworth Center
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Department of Neurology
Albany Medical College

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Howard Hughes Medical Institute Investigator
Francis Crick Chair
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IMTEK - Dept. Microsystems Engineering and Bernstein Center Freiburg
University of Freiburg
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CONFERENCE REGISTRATION FORM  
NOVEMBER 7-8, 2013  
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☐ I plan to present a poster on November 8; 6' (w) x 4' (h). Limited space/acceptance not guaranteed.  

PLEASE INDICATE METHOD OF PAYMENT:  
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☐ Please charge my credit card for the amount of $___________.  

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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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