



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



Wadsworth Center

New York State Department of Health

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 established principles and new directions in ECoG-based research and application. It follows a hugely successful informal workshop at the American Epilepsy Society Annual Meeting in 2008 and the first formal ECoG workshop in Upstate New York in 2009. The planned two-day workshop is held as an official satellite to the Society for Neuroscience (SfN) meeting in San Diego, and thus will capitalize on the large number of scientists who will attend SfN and are interested in ECoG. The first day focuses on current clinical use of electrocorticography and emerging clinical opportunities. The second day focuses on principles of ECoG signals and emerging research.

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

Tuition By:	October 1, 2011:	After October 1, 2011:
Single Day Registration	\$175.00	\$200.00
Students	\$150.00	\$150.00
Two Day Registration	\$250.00	\$300.00
Students	\$225.00	\$225.00

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 A

DAY 1 - NOVEMBER 10, 2011

INTRODUCTION TO THE WORKSHOP

- 8:45a-9:00a **Introductory Comments**
Anthony Ritaccio, M.D. and Gerwin Schalk, Ph.D.
- 9:00a-9:45a **Keynote Address**
Robert T. Knight, M.D., University of California, Berkeley
- 9:45a-10:00a **Coffee Break**

BASICS OF ECoG RECORDINGS

- 10:00a-10:30a **Instrumentation**
Peter Brunner, M.S., Wadsworth Center/Albany Medical College
- 10:30a-11:15a **Passive ECoG Sensors**
Justin Williams, Ph.D., University of Wisconsin at Madison
- 11:15a-11:45a **Active Sensors**
Jonathan Viventi, Ph.D., University of Pennsylvania
- 11:45a-1:00p **Lunch**

CONTEMPORARY CLINICAL ECoG

- 1:00p-1:45p **Chronic and Intraoperative ECoG**
Jeffrey Ojemann, M.D., University of Washington

CURRENT UNDERSTANDING OF ECoG PHYSIOLOGY

- 1:45p-2:30p **Tutorial: Cortical ECoG Physiology**
Bradley Voytek, Ph.D., University of California, San Francisco
- 2:30p-3:00p **Relationship of ECoG and fMRI**
Nick Ramsey, Ph.D., University Medical Center Utrecht
- 3:00p-3:15p **Coffee Break**

TOPICS IN ECoG COGNITIVE NEUROSCIENCE I

- 3:15p-3:45p **Default Network**
Josef Parvizi, M.D., Ph.D., Stanford University
- 3:45p-4:15p **Visual Spatial Attention/Intention**
Aysegül Gunduz, Ph.D., Wadsworth Center / Albany Medical College
- 4:15p-4:45p **Human Visual Perception**
Michael Beauchamp, Ph.D., University of Texas Medical School at Houston
- 4:45p-5:15p **Motor Representation in ECoG**
*Jochem W. Rieger, Dr. habil.
University of California, Berkeley/ University of Magdeburg*

ADVANCES IN ELECTROCORTICOGRAPHY

DAY 2 - NOVEMBER 11, 2011

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 (ICTAL) 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

RESEARCH

GERWIN SCHALK, PH.D.

Research Scientist

Division of Translational Medicine
Wadsworth Center
Albany, New York, USA

CLINICAL

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GUEST FACULTY

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Mountain View, CA, USA

JUSTIN WILLIAMS, PH.D.

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College of Engineering
University of Wisconsin - Madison
Madison, WI

CONFERENCE REGISTRATION FORM

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NOVEMBER 10-11, 2011

TUITION (*Only paid registrations can be accepted.*)

Single Day Registration

Student

Two Day Registration

Student

By October 1, 2011

\$175.00

\$150.00

\$250.00

\$225.00

After October 1, 2011

\$200.00

\$150.00

\$300.00

\$225.00

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

CME Credit Tracking: _____ - _____ - _____

Month of Birth

Date of Birth

First 4 Characters of First Name

Specialty: _____

Institution/Affiliation: _____

Department: _____

Business Address: _____

City: _____ State: _____ Zip: _____

Business Phone: _____ Business Fax: _____

Home Address: _____

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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

NAME AS IT APPEARS ON CARD:

Card Number: _____ Exp. Date: ____/____/____

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METHOD OF REGISTRATION: MAIL OR FAX

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.

OFFICE USE ONLY

Check #: _____

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