THIRD INTERNATIONAL WORKSHOP ON ADVANCES IN ELECTROCORTICOGRAFY

THURSDAY, NOVEMBER 13 -
FRIDAY, NOVEMBER 14, 2014

MARRIOTT WARDMAN PARK
2660 Woodley Road, NW
Washington, DC 20008 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

Electrocorticography (ECoG) is the technique of interacting with the brain electrically by stimulating or recording from the surface of the brain. ECoG has been used for decades for select clinical purposes – most commonly to identify functional and epileptic brain areas in people with epilepsy – and occasionally for research. The important role of ECoG for basic research and its potential to create a new range of clinical applications have long been under-appreciated.

Over the past several years, the unique qualities of ECoG have become widely and increasingly recognized by scientists engaged in basic and translational research. Basic research suggests that ECoG can elucidate brain function in ways that cannot be readily achieved using other imaging modalities, and translational research is producing exciting new ECoG-based applications that are already becoming available in the clinic.

This two-day ECoG workshop highlights current understanding and advances in scientific, engineering, and clinical domains that are relevant to ECoG recordings in humans or animals. It will be the 7th workshop in a highly successful workshop series. It follows an 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 in San Diego, CA, in 2010 (satellite to SfN), the third ECoG workshop in Washington, DC, in 2011 (satellite to SfN), the fourth ECoG workshop in New Orleans, LA, in 2012 (satellite to SfN), the fifth ECoG workshop in San Diego, CA, in 2013 (satellite to SfN), and the sixth ECoG workshop in Berlin, Germany, in March 2014. To date, the results of these workshops have been reported in four highly visible Proceedings articles that were published by Epilepsy and Behavior.

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 9.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
Tuition

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<th>By October 17, 2014:</th>
<th>After October 17, 2014:</th>
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<tbody>
<tr>
<td>Single Day Registration</td>
<td>$195.00</td>
<td>$220.00</td>
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<tr>
<td>Students</td>
<td>$170.00</td>
<td>$170.00</td>
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<tr>
<td>Two Day Registration</td>
<td>$280.00</td>
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</tr>
<tr>
<td>Students</td>
<td>$250.00</td>
<td>$250.00</td>
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Tuition includes admission to the symposium lunch and beverage breaks.

Tuition Refund Policy

Tuition refunds, are possible if notification is received by November 10. After that date, no refunds will be issued. 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 Marriott Wardman Park at (202) 328-2000.

Web Sites

Conference Website - www.ecog.info
Albany Medical Center - www.amc.edu

Confirmation

All registrants will receive a confirmation. If you register and do not receive a confirmation notice within one week of your registrations, please call the Office of Continuing Medical Education at (518) 262-5828 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.

Acknowledgement

We gratefully acknowledge the following organizations for providing support for this conference:

US Army • PMT • Fondazione Neurone • g.tec • CorTec
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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Mentor/Institution</th>
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<tbody>
<tr>
<td>8:45a-9:00a</td>
<td>Welcome and Introduction</td>
<td>Gerwin Schalk, PhD, and Anthony Ritaccio, MD</td>
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<tr>
<td>9:00a-9:45a</td>
<td>Keynote Address</td>
<td>David Poeppel, PhD, NYU</td>
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<tr>
<td>9:45a-10:00a</td>
<td>Break</td>
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<tr>
<td>10:00a-10:45a</td>
<td>The Value of Seizure Semeiology in Epilepsy</td>
<td>Mohamad Koubeissi, MD, George Washington University</td>
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<tr>
<td>10:45a-11:15a</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>11:15a-12:00p</td>
<td>The Expanding Clinical Relevancies of Electrocorticography</td>
<td>Anthony Ritaccio, MD, Albany Medical College</td>
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<tr>
<td>12:00p-1:00p</td>
<td>Lunch</td>
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<tr>
<td>1:00p-1:45p</td>
<td>Biomarkers of Memory Encoding and Retrieval</td>
<td>Michael Kahana, PhD, University of Pennsylvania</td>
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<tr>
<td>1:45p-2:00p</td>
<td>Break</td>
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<tr>
<td>2:00p-2:45p</td>
<td>A Few More Things We Can Learn About the Default Mode Network from Intracranial EEG</td>
<td>Jean-Philippe Lachaux, Lyon Neuroscience Research Center</td>
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<tr>
<td>2:45p-3:15p</td>
<td>Break</td>
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<tr>
<td>3:15p-4:00p</td>
<td>ECoG of Paralyzed Patients</td>
<td>Takufumi Yanagisawa, MD, PhD, Osaka University</td>
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<td>4:00p-4:15p</td>
<td>Break</td>
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<tr>
<td>4:15p-5:00p</td>
<td>Properties of Large-Scale Brain Networks During Sensorimotor Processing</td>
<td>Gerwin Schalk, PhD, Wadsworth Center</td>
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ADVANCES IN ELECTROCORTICOGRAPHY

DAY 2 - FRIDAY, NOVEMBER 14, 2014

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

8:30a-9:15a  Imaging Functional and Epileptic Networks with Cortical Stimulation
Riki Matsumoto, MD, PhD, Kyoto University

9:15a-9:30a  Break

9:30a-10:15a  Rapid and Minimally-Invasive Functional Cortical and White Matter Mapping by Intraoperative Real-time ECoG Analysis
Kyousuke Kamada, MD, PhD, Asahikawa Medical University

10:15a-10:45a  Break

10:45a-11:30a  The Implant Effect – Insights from Chronic Ambulatory Electrocorticogram Recording
Martha J. Morrell, MD, Neuropace
(CME Credit is NOT available for this lecture)

11:30a-11:45a  Break

11:45a-12:30p  Current and Future Applications of EEG- and ECoG-Based Brain-Computer Interfaces
Christoph Guger, PhD, g.tec Medical Engineering
(CME Credit is NOT available for this lecture)

12:30p-1:30 Lunch

1:30p-2:15p  Macro and Microscale Views of Focal Seizure Initiation, Spread and Termination
Sydney S. Cash, MD, PhD, Harvard Medical School

2:15p-2:30p  Break

2:30p-3:15p  Individualized Cortical Electrodes for Gyral and Sulcal Recording
Masayuki Hirata, MD, PhD, Osaka University

3:15p-3:45p  Break

3:45p-4:30p  A Fully-Integrated Miniature 64-Channel, 225uW Wireless Electrocorticographic Neural Sensor
Jan M. Rabaey, PhD, UC Berkeley

4:30p-4:45p  Break

4:45p-5:30p  High-Resolution Monkey ECoG Reveals Feedforward and Feedback Mechanisms and their Interaction
Pascal Fries, MD, PhD, Ernst Strüngmann Institute

5:30p  Reception
Faculty

Course Directors

Research

Gerwin Schalk, PhD
Research Scientist
National Center for Adaptive Neurotechnologies
Wadsworth Center
Associate Professor
Department of Neurology
Albany Medical College
Albany, New York, USA

Clinical

Anthony Ritaccio, MD, FAAN, FANA
J. Spencer Standish Professor Neurology and Neurosurgery
Director, Epilepsy and Human Brain Mapping Program
Department of Neurology
Albany Medical College
Albany, NY, USA

Guest Faculty

Sydney S. Cash, MD, PhD
Assistant Professor of Neurology
Harvard Medical School
Assistant in Neurology
Massachusetts General Hospital
Boston, MA, USA

Pascal Fries, MD, PhD
Director
Ernst Strüngmann Institute (ESI)
for Neuroscience in Cooperation with Max Planck Society
Frankfurt, Germany

Christoph Guger, PhD
Chief Executive Officer
g-tec Medical Engineering
Schiedlberg, Austria

Masayuki Hirata, MD, PhD
Associate Professor, Division of Medicine
Graduate School of Medicine
Osaka University
Osaka, Japan

Michael J. Kahana, PhD
Professor
Department of Psychology
Director, Computational Memory Lab
University of Pennsylvania
Philadelphia, PA, USA

Kyouseke Kamada, MD, PhD
Professor and Chairman
Department of Neurosurgery
Asahikawa Medical University
Hokkaido, Japan

Mohamad Koubeissi, MD
Associate Professor of Neurology
Director, Epilepsy Center
George Washington University
Washington, DC, USA

Jean-Philippe Lachaux, PhD
Research Director
French National Health Research Institute (INSERM)
Lyon Neuroscience Research Center
Lyon, France

Riki Matsumoto, MD, PhD
Associate Professor
Department of Epilepsy, Movement Disorders and Physiology
Kyoto University
Kyoto, Japan

Martha J. Morrell, MD
Chief Medical Officer
NeuroPace, Inc.
Clinical Professor of Neurology and, by courtesy, Neurosurgery
Stanford University
Mountain View, CA, USA

David Poeppel, PhD
Professor of Psychology and Neural Science
Department of Psychology New York University
New York University
New York, NY, USA
Director, Department of Neuroscience
Max-Planck Institute
Frankfurt, Germany

Jan M. Rabaey, PhD
Professor
Electrical Engineering and Computer Sciences
College of Engineering
UC Berkeley
Berkeley, CA, USA

Takufumi Yanagisawa, MD, PhD
Assistant Professor
Division of Health Sciences
Graduate School of Medicine
Osaka University
Osaka, Japan
CONFERENCE REGISTRATION FORM       NOVEMBER 13-14, 2014
7TH INTERNATIONAL WORKSHOP ON ADVANCES IN ELECTROCORTICOGRAPHY

TUITION (Only paid registrations can be accepted.)  
By October 17, 2014  After October 17, 2014
Single Day Registration  $195.00  $220.00
Students  $170.00  $170.00
Two Day Registration  $280.00  $340.00
Students  $250.00  $250.00

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:  
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 13, 2014  ☐ Friday, November 14, 2014  
☐ Both Thursday & Friday, November 13-14, 2014

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: _____/_____/_____  
Signature: ________________________

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 #: ____________________  
B/P: ________________________  
Date Received: ____________________  
Amount: ________________________  
C.C. Approval #: ____________________  
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CL: ________________________  
Note: ________________________
Register by October 17 and save $$$$$$$$$$$

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