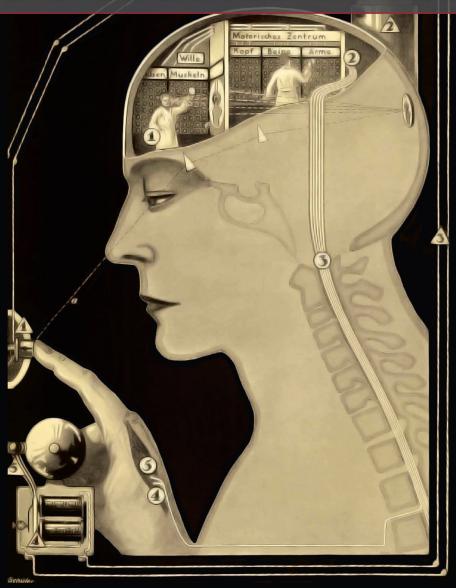
4TH INTERNATIONAL WORKSHOP ON ADVANCES IN ELECTROCORTICOGRAPHY



THURSDAY, OCTOBER 11 - FRIDAY, OCTOBER 12, 2012

Hyatt French Quarter

800 Iberville Street New Orleans, LA 70112, 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 eletrocorticographic (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 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 that was held prior to the SfN meeting in San Diego in 2010, and the third ECoG workshop that was held prior to the SfN meeting in Washington, DC.

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 cognitive 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 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 12.25 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

TUITION

Tuition By:	September 15, 2012:	After September 15, 2012:
Single Day Registration	\$180.00	\$205.00
Students	\$155.00	\$155.00
Two Day Registration	\$260.00	\$310.00
Students	\$230.00	\$230.00

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 September 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 Hyatt French Quarter at 1-504-586-0800.

WEB SITES

Conference Website: www.ecog.info

The Hyatt French Quarter: www.frenchquarter.hyatt.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 <u>NOT</u> 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.

4TH INTERNATIONAL WORKSHOP ON A

DAY 1 - OCTOBER 11, 2012

DAI 1 - OCTOBER 11, 2012				
BASIC CONCEPTS OF CLINICAL, SCIENCE, ENGINEERING, AND THEIR INTEGRATION				
8:15a-8:30a	Welcome and Introduction Anthony Ritaccio, MD, and Gerwin Schalk, PhD			
8:30a-9:15a	Keynote Address Nancy Kanwisher, PhD, Massachusetts Institute of Technology			
9:15a-9:30a	Break			
I. CLINICAL				
9:30a-9:45a	"The Case" Anthony L. Ritaccio, MD, Albany Medical Center			
9:45a-10:30a	Clinical Primer Lawrence J. Hirsch, MD, Yale School of Medicine			
10:30a-10:45a	Break			
10:45a-11:30a	Functional Mapping Using Electrical Stimulation Josef Parvizi, MD, PhD, Stanford University			
11:30a-11:45a	Break			
11:45a-12:30p	Functional Mapping Using ECoG Recordings Nathan Crone, MD, Johns Hopkins University			
12:30p-1:30p	Lunch			
II. SCIENCE				
1:30p-2:15p	Tutorial on Basic ECoG Physiology Kai J. Miller, MD, PhD, Stanford School of Medicine			
III. Engineering				
2:30p-3:00p	Basics of ECoG Signal Acquisition Peter Brunner, MS, Wadsworth Center			
3:00p-3:30p	Basics of ECoG Signal Analysis Aysegul Gunduz, PhD, University of Florida			
IV. INTEGRATION	1			
3:45p-4:30p	Integration of Understanding and Results From the Clinical, Scientific, and Engineering Domains Anthony L. Ritaccio, MD, Albany Medical Center			
SNEAK PEAK TO ADVANCED TOPICS				
4:45p-5:30p	Investigating Inter-Areal Synchronization with High-Resolution Surface and Depth ECoG Pascal Fries, MD, PhD, Ernst Strüngmann Institute			

DVANCES IN ELECTROCORTICOGRAPHY

Day 2 - October 12, 2012

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	ADVANCED TOPICS			
	8:15a-8:30a	Welcome and Introduction Anthony Ritaccio, MD, and Gerwin Schalk, PhD		
	I. CLINICAL	CLINICAL		
	8:30a-9:15a	Challenges in Translating Micro-ECoG into Therapies For Epilepsy Brian Litt, MD, University of Pennsylvania		
	II. SCIENCE			
	9:30a-10:15a	Multimodal Comparisons and Group Analysis of ECoG Data Nitin Tandon, MD, Memorial Hermann-Texas Medical Center		
10:15a-10:30a Break		Break		
	10:30a-11:15a	Cortical Representation of Complex Motor Behaviors Nick F. Ramsey, PhD, University Medical Center Utrecht		
	11:15a-11:30a	Break		
	11:30a-12:15p	Using Resting-State Networks for Brain Mapping Eric C. Leuthardt, MD, Washington University in St. Louis		
	12:15p-1:15p	Lunch		
	12:15p-1:15p III. ENGINEERI			
	III. Engineeri	Optoelectronic Interfaces for Investigating Spatiotemporal Cortical Dynamics with Microelectrocorticography		
	III. ENGINEERI 1:15p-2:00p	Optoelectronic Interfaces for Investigating Spatiotemporal Cortical Dynamics with Microelectrocorticography Justin C. Williams, PhD, University of Wisconsin-Madison Break		
	III. ENGINEERI 1:15p-2:00p 2:00p-2:15p	Optoelectronic Interfaces for Investigating Spatiotemporal Cortical Dynamics with Microelectrocorticography Justin C. Williams, PhD, University of Wisconsin-Madison Break		
	III. ENGINEERI 1:15p-2:00p 2:00p-2:15p IV. INTEGRATIO	Optoelectronic Interfaces for Investigating Spatiotemporal Cortical Dynamics with Microelectrocorticography Justin C. Williams, PhD, University of Wisconsin-Madison Break ON Bi-Directional Electrocorticographic Brain-Computer Interface		
	III. ENGINEERI 1:15p-2:00p 2:00p-2:15p IV. INTEGRATIO 2:15p-3:00p	Optoelectronic Interfaces for Investigating Spatiotemporal Cortical Dynamics with Microelectrocorticography Justin C. Williams, PhD, University of Wisconsin-Madison Break DN Bi-Directional Electrocorticographic Brain-Computer Interface Dan W. Moran, PhD, Washington University in St. Louis		
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	III. ENGINEERI 1:15p-2:00p 2:00p-2:15p IV. INTEGRATIO 2:15p-3:00p 3:00p-3:15p 3:15p-4:00p	Optoelectronic Interfaces for Investigating Spatiotemporal Cortical Dynamics with Microelectrocorticography Justin C. Williams, PhD, University of Wisconsin-Madison Break ON Bi-Directional Electrocorticographic Brain-Computer Interface Dan W. Moran, PhD, Washington University in St. Louis Break The Initial Experience with an Electrocorticographic Brain-Computer Interface in an Individual with Tetraplegia Wei Wang, MD, PhD, University of Pittsburgh		
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	III. ENGINEERI 1:15p-2:00p 2:00p-2:15p IV. INTEGRATIO 2:15p-3:00p 3:00p-3:15p 3:15p-4:00p 4:00p-4:15p 4:15p-4:45p	Optoelectronic Interfaces for Investigating Spatiotemporal Cortical Dynamics with Microelectrocorticography Justin C. Williams, PhD, University of Wisconsin-Madison Break ON Bi-Directional Electrocorticographic Brain-Computer Interface Dan W. Moran, PhD, Washington University in St. Louis Break The Initial Experience with an Electrocorticographic Brain-Computer Interface in an Individual with Tetraplegia Wei Wang, MD, PhD, University of Pittsburgh Break Perspectives on ECoG Research and Applications Gerwin Schalk, PhD, Wadsworth Center		

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Vilas Distinguished Achievement Professor Associate Professor Departments of Biomedical Engineering and Neurological Surgery University of Wisconsin-Madison

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Month of Birth	Date of Birth	First 4 Characters of First Name
Specialty:		
Institution/Affiliation:		
Department:		
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