

# *Thirty Third Neural Prosthesis Workshop*

October 16 – 18, 2002

Auditorium of the Lister Hill Center (NLM), Building 38A  
National Institute National Institute of Neurological Disorders and Stroke (NINDS)  
National Institute on Deafness and Other Communication Disorders (NIDCD)  
National Center for Medical Rehabilitation Research (NCMRR)  
National Institute of Biomedical Imaging and Bioengineering (NIBIB)  
**National Institutes of Health**

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## Wednesday, October 16

8:30	a.m.	<b>Registration (Continental Breakfast)</b>	
9:00		State of the Institutes - NINDS, NIDCD, NIBIB, NCMRR	
9:20		Orientation and Update	Bill Heetderks
		<b>Special Session on New Prosthetic Applications</b>	Roger Miller, Chair
9:25		Some Thoughts on the Future of Neural Prostheses	Terry Hambrecht
9:35		Voice Replacement, Laryngeal Prostheses, Harvard Medical School.	Bob Hillman James Heaton
10:15		Vestibular Prostheses, Harvard Medical School.	Dan Merfeld
10:55		Semi Circular Canal implants for Postural Control, Washington University, St. Louis.	Aasef Shaikh
11:10		Cortical Visual Prostheses, Illinois Institute of Technology.	Phil Troyk
11:50		Retinal Visual Prostheses, University of Southern California - Keck School of Med.	Mark Humayun Jim Wieland
12:30	p.m.	<b>Lunch (On Your Own)</b>	
1:30		Round Table Discussion	
1:50		Cortical Control of Neural Prostheses, University of Pittsburgh.	Andy Schwartz Steve Helms-Tillery Daryl Kipke Justin Williams

2:30	Cortical Control of Neural Prostheses, Brown University.	John Donoghue
3:10	<b>Coffee Break and Poster Viewing</b>	
3:40	General Purpose Brain-Computer Interface (BCI) System, Wadsworth Center, New York State DOH.	Theresa Vaughan Gerwin Schalk
4:10	FNS to Restore Hand and Arm Function, Case Western Reserve University.	Bob Kirsch Matt Williams Warren Grill Jayme Knutsun
4:50	Student Assistance Program	Meredith Temple
5:00	<b>Adjourn</b>	
6:00	Informal Get-Together at Chatter's - Four Points (1/2 block South on Wisconsin Ave.)	

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**Thursday, October 17**

7:30	a.m.	<b>Continental Breakfast</b>	
8:00		Development of Networked Implantable Neural Prostheses, Case Western Reserve University.	Hunter Peckham Kevin Kilgore Brian Smith
8:40		Bion Treatment of Neurological Dysfunction, University of Southern California.	Jerry Loeb
9:20		Stimulating and Recording Microelectrode Arrays, University of Michigan.	Ken Wise
10:00		<b>Coffee Break and Poster Viewing</b>	
10:30		Functional Microstimulation of the Lumbosacral Spinal Cord, University of Alberta.	Arthur Prochazka
11:10		Functional Microstimulation of the Lumbosacral Spinal Cord, Huntington Medical Research Institutes.	Doug McCreery
11:50		Microstimulation of the Lumbosacral Spinal Cord- Mapping, Case Western Reserve University.	Warren Grill Ken Gustafson Michel Lemay
12:20	p.m.	<b>Lunch (On Your Own)</b>	
1:20		CNS Biomaterials, University of Michigan.	Dave Martin Pat Tresco
2:00		Strain-induced Scarring and its Effects on Microelectrodes, Case Western Reserve University.	Ravi Bellamkonda
2:40		A 3-D Microfluidic/Electronic Neural-Interfacing System, Georgia Tech.	Steve Deweerth
3:10		<b>Coffee Break and Poster Viewing</b>	

3:50	Insulating Biomaterials, Innersea Technology.	Dave Edell
4:30	Feasibility of an Intra-neural Auditory Prosthesis Stimulating Electrode, University of Utah.	Arun Badi
5:10	<b>Adjourn</b>	

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**Friday, October 18**

7:30	a.m. <b>Continental Breakfast</b>	
8:00	Speech Processors for Auditory Prosthesis, Research Triangle Institute.	Blake Wilson
8:40	Speech Processors for Auditory Prosthesis, Massachusetts Institute of Technology.	Don Eddington
9:20	Neurophysiological Effects of Simulated Auditory Prosthesis Stimulation, University of Iowa.	Paul Abbas Charlie Miller
10:00	<b>Coffee Break and Poster Viewing</b>	
10:30	Protective Effects of Patterned Electrical Stimulation, University of Melbourne.	Rob Shepherd
11:10	Neurophysiological Effects of Simulated Auditory Prosthesis Stimulation, UC San Francisco.	Russ Snyder
11:25	Protective Effects of Patterned Electrical Stimulation, University of California, San Francisco.	Pat Leake
12:05	p.m. <b>Lunch (On Your Own)</b>	
1:05	A Cochlear Nucleus Auditory Prosthesis Based on Microstimulation, Huntington Medical Research Institutes.	Doug McCreery
1:45	Effects of Remaining Hair Cells on Cochlear Implant Function, University of Iowa.	Paul Abbas Charlie Miller
2:25	Wrapup	
2:30	<b>Adjourn</b>	

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**Notes:**

Each speaker will be allotted 25 minutes for their presentation, followed by 15 minutes for discussion. Please visit the authors of the posters during the coffee breaks each day; posters will be located in the hallways and foyer.