

NYSDOH's National Center For Adaptive Neurotechnologies Hosts Students For Unprecedented Summer Training Course In Albany

ALBANY, N.Y. – The New York State Department of Health's new National Center for Adaptive Neurotechnologies (NCAN) in Albany brings together a select group of 24 young scientists, engineers, and clinicians from around the country for a first-of-its-kind, three-week Short Course in Adaptive Neurotechnologies. This is a unique opportunity for emerging leaders in this rapidly-growing multidisciplinary field to acquire a comprehensive grasp of the basic principles and current state of the field and of future prospects for scientific and clinical advances. It is being taught by 30 internationally-recognized authorities from throughout the country.

NCAN, which is overseen by NYSDOH's Wadsworth Center, is the only neurotechnology center funded by the National Institutes of Health (NIH), and the only facility of its kind working directly with patients.

The field of adaptive neurotechnologies applies understanding in neuroscience and engineering to establish real-time adaptive interactions with the nervous system. Work in this area improves our understanding of the brain, and generates entirely new diagnostic or treatment options for people with neurological injuries or disease.

Adaptive neurotechnology research is at the intersection of multiple disciplines, including neuroscience, biomedical engineering, signal processing, mathematics, computer science, and clinical and commercial domains. Through lectures and hands-on laboratory work, participants in this course will gain a comprehensive grasp of the basic theory and practice

of these highly diverse topics, and the potential scientific and clinical applications that they make possible.

“We had applications from more than 60 highly-qualified, young scientists, engineers, and clinicians from all over the country, which made it difficult to select our 24 participants,” said Gerwin Schalk, Ph.D., course co-director and deputy director of NCAN. Jon Wolpaw, M.D., course co-director and director of NCAN adds: “We were fortunate to attract as visiting faculty a number of major figures in the field. Thus, in addition to its educational function, our course will offer attendees access to a distinguished network of potential mentors and collaborators.”

In addition to the course directors and other NCAN staff members, the faculty includes distinguished scientists, engineers, and clinicians from Cornell University, Northwestern University, Washington University, Medical University of South Carolina, University of Southern California, University of Florida, Old Dominion University, Case Western Reserve University, The Nielsen Foundation, The Defense Advanced Research Projects Administration (DARPA), and the NIH. Course lectures and training activities are being held at two Wadsworth Center facilities, the Center for Medical Science and the David Axelrod Institute, on New Scotland Avenue in Albany. The students will be housed in quad-style apartments in the University Heights College Suites on Union Drive.

This course is funded by a grant from the National Center for Medical Rehabilitation Research of the National Institute of Child Health and Human Development (NICHD). It provides the students with a full scholarship for tuition, travel, and room and board. The course will be held annually for at least the next three years.

Portions of the course will be made available online. Please visit www.neurotechcenter.org for further details.

About the National Center for Adaptive Neurotechnologies:

The National Center for Adaptive Neurotechnologies (NCAN) at the Wadsworth Center of the New York State Department of Health in Albany, N.Y. is supported by the National Institute of Biomedical Imaging and Bioengineering of the NIH. NCAN strives to produce and validate new neurotechnologies, and to provide training and dissemination that enable scientists, engineers, and clinicians to join in developing and using them. The center's work is producing groundbreaking neurotechnologies and translating them into effective new therapies for spinal cord injury, stroke, and other devastating neurological disorders.