

# Symposium Highlights Neuroscience Achievements

The Institute for Neural Engineering at the University of Miami recently hosted more than 200 neuroscientists and biomedical engineers, from leading institutions across Florida, for the fourth annual Neural Engineering Research Symposium. The virtual event offered a unique platform for researchers to share their advanced translational neuroscience and neurotechnology research with peers.



W. Dalton Dietrich, Ph.D.

During the symposium scientists and engineers discussed novel research tools, brain-computer interfaces, the aging brain, computational neuroscience and other important topics.

One of the institute's long-term goals, and a major topic in neural engineering, is bringing biomedical engineers and neuroscientists together to develop new technologies, diagnostics, rehabilitation approaches and therapies to

benefit patients.

“The symposium allows our scientists to build alliances to attack highly complex clinical problems in our field, including stroke, paralysis, aging, cognition and a multitude of sensory deficits,” said W. Dalton Dietrich, Ph.D., scientific director of The Miami Project to Cure Paralysis at the University of Miami Miller School of Medicine. “It was exciting to hear about different approaches that basic scientists, engineers and physicians are using to improve overall brain health.”

### **Educating the next generation of neural engineers**

The symposium advances the institute’s efforts to educate the next generation of neural engineers, who will play a crucial role during their training and later, when they disseminate new knowledge in academia and industry to advance science and clinical practice. In addition, the event is tremendous opportunity for scientists to share ideas and develop new collaborations.

“It is imperative that we continue to engage with researchers across Florida and beyond, develop new educational efforts and recruit researchers in this exciting field that promises a better future for patients suffering from a multitude of neurological disorders,” said institute co-director Suhrud Rajguru, Ph.D. “A close collaboration between the Department of Biomedical Engineering, the neuroscientists at The Miami Project and others, is already advancing our understanding of these disorders.”

The program concluded with 30 virtual poster presentations,

discussing the role oxidative stress plays in intracortical implants for brain-machine interfaces, using infrared radiation to stimulate neurons, and how machine learning can help identify novel pharmacotherapies to treat neurological disorders.

Content Type article