

NEWSLETTER

SUMMER EDITION



University Hospitals Joins the Cleveland FES Center Consortium

As the global leader in the research and development of neurostimulation and neuromodulation applications, the Cleveland FES Center is excited to announce the most recent consortium member, University Hospitals. UH joins the transdisciplinary alliance including, the Veterans Administration, Case Western Reserve University and MetroHealth Medical Center.

The clinical expertise of University Hospitals combined with the biomedical expertise of the Cleveland FES Center culminate in the transdisciplinary research atmosphere ideal for creating crosscutting research programs in neurostimulation and neuromodulation. As the FES Center continues to grow and leading edge research methods become more focused; the complexity of today's most pressing health issues and diseases are discovered, collaborations among scientists trained in different fields and disciplines have become essential in solving real medical problems that impact medical science.

UH investigators in neurostimulation and neuromodulation applications partner with FES Investigators in research programs including Brain initiatives, Parkinson's Disease, Pain, Depression, SCI and neuroplasticity programs and others as well.

The consortium member institutions: Case Western Reserve University, VA Rehabilitation Research & Development and MetroHealth Medical Center appreciate the collaborative research opportunities with University Hospitals in driving this leading research program.



Multidisciplinary Team Approach to Bladder Management

Bladder management is the top priority for people living with chronic spinal cord injury. It is an aspect of spinal cord injury that is not visible but life altering. Within this population there are unique needs and expectations for each individual. Currently available management techniques include a variety of catheterizations, urinary redirection or incontinence medications; however there are challenges to these techniques such as urinary tract infections or renal failure. There are new and novel mechanical and pharmacological strategies for effective bladder management, as well as electrical stimulation technique currently in research development. The FES Center of Excellence in Cleveland, Ohio has been investigating electrical stimulation for a variety of applications to restore function including techniques for bladder management.

The notion of multidisciplinary teams to deliver the best bladder management strategy to the individual living with a spinal cord injury is the premise of an upcoming presentation. Evidence reveals that consumers will quickly discard or not use technology that does not fulfill their personal expectations, even though clinically the technique is viewed as fulfilling an unmet need. Improving the available techniques and the development of new bladder management strategies must involve the consumer as well as the clinician in order to increase functionality, usability and quality.

Donald Bodner, MD, Steven Brose, DO, Melissa Schmitt, RN, and Jen French, MBA will be presenting this multidisciplinary team approach to bladder management at the upcoming Academy of Spinal Cord Injury Professionals, 2015 Educational Conference and Expo in New Orleans, September 6-9.



Dr. Ronald Riechers joins the FES Center as Medical Director

Dr. Ronald G Riechers, II, MD presented “Traumatic Brain Injury” to the Cleveland FES Center on June 12, 2015 as the third Medical Director in the history of the Functional Electrical Stimulation (FES) Center of Excellence, following Dr. Robert Ruff and founding Medical Director, Dr. Byron Marsolias.

Dr. Riechers is the Chief of the Department of Neurology and Medical Director of Polytrauma Team at the Cleveland VA Medical Center, as well as Assistant Professor in the Department of Neurology at Case Western Reserve University. Dr. Riechers received his BS degree from the University of Akron and his MD from Northeastern Ohio Universities College of Medicine.

Dr. Riechers research and clinical practice focus on traumatic brain injury, a clinical population of obvious relevance to the VA, and a research thrust within the FES Center. This interest and expertise will enrich the FES Center’s inquisitive and collaborative environment which researchers, engineers and clinicians work in a unique alliance to develop innovative, patient-centric solutions that improve the quality of life of individuals with neurological or other muscular skeletal impairments.



Kevin Kilgore, PhD Earns Top Prize in MetroHealth “Think Tank”

Kevin Kilgore has a passion for pioneering solutions for individuals with spinal cord injuries. His latest idea earned him a top prize in “Think Tank”, MetroHealth Medical Center’s employee competition of innovative ideas that would improve both MetroHealth and the surrounding community.

When Akram Boutros, MD, President and CEO of MetroHealth announced the competition, the judges panel anticipated approximately 30-40 proposals. Think Tank received over 100 innovative ideas from dedicated MetroHealth employees. Through an extensive review process, six proposals were selected for the “Think Tank” finale event. All six proposals received various level of funding.

FES Center investigator Dr. Kilgore’s idea of “MetroHouse,” a house in the community owned by Metro and fully wheelchair accessible for patients visiting for research purposes, was 1 of 6 to make it to the final round and present to the panel of judges. After winning \$100K in a 3-way tie for first place, a donor presented an additional \$500K check for the development of MetroHouse. Kilgore says he’s had the idea for years: “A lot of our patients fly in from around the country to be part of our research program at Metro. These patients have both their arms and legs paralyzed – but they are otherwise healthy – so they just need help with things like transferring into bed and so on. They don’t need to stay in the hospital – in fact it’s too expensive to have them stay there. Over the years we’ve had patients stay in various hotels in the area, but there really aren’t rooms that are designed for the specific needs of our patients. For most hotels, an accessible room means adding things like grab bars and so on, but what good are grab bars if you can’t use your hands? Also, there aren’t any hotels close to Metro, so we’re constantly shuttling patients back and forth from the hotel to the hospital every day. So for years we’ve tossed around the idea that it would be great to buy a house right next to the hospital, make it fully accessible, and let our patients stay there while they get treatment.”

Kilgore has high hopes for opening MetroHouse in the very near future: “I expect we’ll move forward pretty quickly in terms of getting the property and getting everything ready to renovate or build. But we’re also going to take our time and talk to people who run similar facilities around the country. We want this to be a state-of-the-art facility that really meets the needs of our patients. We want to make sure we get it right the first time! I’m anxious to get it going – I already have patients who are looking forward to staying there.”

If all goes well, Kilgore would like to see MetroHouse open its doors before the first snowfall. Thanks to MetroHealth Think Tank and the generosity of a donor, MetroHouse is able to become a reality.



Congratulations to ASIA Award Recipients

The Annual American Spinal Cord Association (ASIA) meeting recognized three FES Center members. Congratulations to...

P Hunter Peckham, PhD received the Lifetime Achievement Award. Established in 1987, this award is presented periodically by ASIA to an individual who has made a significant contribution to the world of spinal cord injury care. Criteria include: career dedication; peer recognition; professional competence; and recognized achievement

Gregory A Nemunaitis, MD was appointed to the ASIA Board of Directors. ASIA is governed by a Board of Directors, whose membership composition is reflective of the multidisciplinary nature of its members. Individuals nominated to the Board of Directors have demonstrated significant contribution to the association either by service on committees or the scientific program, or have made significant contribution to the field of spinal cord injury.

Anne M Bryden, OTR/L Received the Neilsen Award. The Craig H. Neilsen Foundation has committed \$125,000 to ASIA, over a five year period, to fund one award each year for a clinician working in spinal cord injury (SCI) care delivery who expresses an interest in adding a research element to her career. Ms. Bryden, a PhD candidate, received the award for her project entitled "The Development of a Novel Upper Extremity Assessment Protocol for Acute Tetraplegia."

PUBLICATIONS

NEWS

NP SEMINARS

PUBLICATION HIGHLIGHTS



Pain

Lempka SF, McIntyre CC, Kilgore KL, Machado AG.

Computational analysis of kilohertz frequency spinal cord stimulation for chronic pain management.

Anesthesiology. 2015 Jun;122(6):1362–1376. doi: [10.1097/ALN.0000000000000649](https://doi.org/10.1097/ALN.0000000000000649) Pubmed PMID: [25822589](https://pubmed.ncbi.nlm.nih.gov/25822589/)

Stroke

Linder SM, Rosenfeldt AB, Bay RC, Sahu K, Wolf SL, **Alberts JL.**

Improving Quality of Life and Depression After Stroke Through Telerehabilitation. Am J Occup Ther. 2015 Apr;69(2):6902290020p1–6902290020p10. doi: [10.5014/ajot.2015.014498](https://doi.org/10.5014/ajot.2015.014498) Pubmed PMID:[26122686](https://pubmed.ncbi.nlm.nih.gov/26122686/)

Linder SM, Rosenfeldt AB, Rasanow M, **Alberts JL.**

Forced Aerobic Exercise Enhances Motor Recovery After Stroke: A Case Report. Am J Occup Ther. 2015 Aug;69(4):6904210010p1–8. doi: [10.5014/ajot.2015.015636](https://doi.org/10.5014/ajot.2015.015636) Pubmed PMID: [26114455](https://pubmed.ncbi.nlm.nih.gov/26114455/)