

Agenda Saturday Nov 3

8:00 am	Welcome & Logistics	Elliot Krames, MD Co-Founder of Neuromodulation: The Science
8:15 am – 11:30 am	Neural Engineering	
8:15 am	Ultramicroelectrodes for Recording and Stimulation of the CNS and PNS	Stuart Cogan, ScD University of Texas at Dallas
8:45 am	Neurorobotics	Atila Kilicarslan, PhD University of Houston
9:15 am	Hydrogel-based Electronics: Ultracompliant Electrodes for Neural Interfaces and Beyond	Christopher Bettinger, PhD Carnegie Mellon University
9:45 am	Break	
10:00 am	Neural Prosthetics	Dustin Tyler, PhD Case Western Reserve University
10:30 am	Brain Machine Interfaces	A. Bolu Ajiboye, PhD Case Western Reserve University
11:00 am	Neuromodulation: Infrared Stimulation	Michael W. Jenkins, PhD Case Western Reserve University
11:30 am – 12:00 pm	Oral Posters & Group Discussion	
12:00 pm – 1:00 pm	Lunch in the Exhibit Hall	
1:00 pm – 2:30 pm	Sacral Nerve Mechanism of Action	
1:00 pm	Chronic Pelvic Pain: The Cause and Effect	Magdy Hassouna, MD, PhD University of Toronto
1:30 pm	Towards Understanding the Role of Peripheral Nerve Reflexes in Inhibiting Bladder Function	Paul Yoo, PhD, PEng University of Toronto
2:00 pm	Mechanisms Underlying Neuromodulation of Bladder Overactivity	Changfeng Tai, PhD University of Pittsburgh
2:30 pm – 3:00 pm	Coffee Break in the Exhibit Hall	
3:00 pm – 5:30 pm	Peripheral Nerves	
3:00 pm	Kilohertz Frequency Alternating Current Block of Vagal Afferent and Efferent Fibers for Neuromodulation in Respiratory Diseases	Marian Kollarik, MD, PhD University of South Florida
3:30 pm	Direct Current Nerve Block: Challenges and Opportunities	Tina Vrabc, PhD Case Western Reserve University
4:00 pm	DRG and Spinal Cord Stimulation for Prosthetic and Therapeutic Applications	Lee Fisher, PhD University of Pittsburgh
4:30 pm	Transcutaneous Direct Current Motor Block	Niloy Bhadra, MD, PhD Cleveland FES Center
5:00 pm	SCS to Treat Peripheral Neuropathies	Jeyakumar Subbaroyan, PhD Nevro
5:30 pm – 6:00 pm	Oral Posters & Group Discussion	
6:00 pm – 7:15 pm	Welcome Reception in the Foyer	Sponsored by 

Remember: Daylight savings ends **TONIGHT**

Agenda Sunday Nov 4

8:00 am	Welcome & Logistics	Eric J. Grigsby, MD, MBA Co-Founder of Neuromodulation: The Science
8:15 am – 11:30 am	Bioelectronic Medicine	
8:15 am	Bioelectronic Medicine: Historical Perspectives and Future Directions	Christopher Czura, PhD & Chat Bouton, MS The Feinstein Institute
9:15 am	Afferent and Efferent Effects of Vagus Nerve Stimulation in Different Animal Models	Stavros Zanos, MD, PhD The Feinstein Institute
9:45 am	Break	
10:00 am	Neuromodulation in Stress and Psychiatry	J. Douglas Bremner, MD Emory University School of Medicine
10:30 am	Acute Treatment of Stroke	Ilknur Ay, MD, PhD Harvard Medical School
11:00 am	Vagus Insufficiency Syndrome: A New Paradigm for Understanding Disease	Peter Staats, MD, MBA National Spine and Pain Centers
11:30 am – 12:00 pm	Oral Posters & Group Discussion	
12:00 pm – 1:00 pm	Lunch in the Exhibit Hall	
1:00 pm – 3:00 pm	Bioelectronic Stimulation of the Heart	
1:00 pm	Foundational Concepts for Cardiac Neuromodulation	Jeffrey L. Ardell, PhD, FAHA UCLA Neurocardiology Research Center of Excellence
1:30 pm	Voltammetry for the Direct Neurotransmitter Measures in the Normal and Stressed Heart	Corey Smith, PhD Case Western Reserve University
2:00 pm	Axonal Modulation Therapy for the Control of Cardiac Autonomic Activity and Arrhythmia Therapeutics	Tina Vrabec, PhD Case Western Reserve University
2:30 pm	Clinical Neurocardiology: Emerging Opportunities for Cardiac Therapeutics	Olujimi A. Ajijola, MD, PhD UCLA Cardiac Arrhythmia Center
3:00 pm – 3:30 pm	Coffee Break in the Exhibit Hall	Sponsored by 
3:30 pm – 5:30 pm	Vagal Nerve Stimulation	
3:30 pm	Cardiac Based Seizure Detection and Vagus Nerve Stimulation	Paul Boon, MD, PhD, FEAN Ghent University Hospital
4:00 pm	Vagus Nerve Stimulation and the Noradrenergic System: A Translational Approach	Robrecht Raedt, PhD Ghent University
4:30 pm	Vagus Nerve Stimulation in Epilepsy & Depression	Kristl Vonck, MD, PhD Ghent University Hospital
5:00 pm	Enhancing Rehabilitation with Vagus Nerve Stimulation	Seth Hays, PhD University of Texas at Dallas
5:30 pm – 6:00 pm	Oral Posters & Group Discussion	

Agenda Monday Nov 5

8:00 am	Welcome & Logistics	Elliot Krames, MD Co-Founder of Neuromodulation: The Science
8:15 am – 9:45 am	Optogenetics Pt 1	
8:15 am	Optogenetics and Addiction	Meaghan C. Creed, PhD University of Maryland School of Medicine
8:45 am	Progress and Challenges in Non-human Primate Optogenetics	Adriana Galvan, PhD Emory University School of Medicine
9:15 am	Optogenetic-based Neuromodulation in the Treatment of Chronic Pain	Jeffrey Kramer, PhD Volta Research
9:45 am	Break	
10:00 am – 12:00 pm	Gastroesophageal-Colonic Stimulation	
10:00 am	Esophageal Electrical Stimulation for Gastroesophageal Reflux Disease	Edy Soffer, MD University of Southern California
10:30 am	Gastric Electrical Stimulation for Gastroparesis	Richard McCallum, MD Texas Tech University Health Sciences Center
11:00 am	Transcutaneous Neuromodulation for Functional GI Diseases	Gengqing (Gavin) Song, MD Cleveland Clinic
11:30 am	The Role of Neuromodulation for Constipation in the Era of the Opioid Epidemic	Jiande Chen, PhD Johns Hopkins University School of Medicine
12:00 pm – 12:30 pm	Oral Posters & Group Discussion	
12:30 pm – 1:30 pm	Lunch in the Exhibit Hall	
1:30 pm – 3:00 pm	Optogenetics Pt 2	
1:30 pm	Luminopsins	Robert Gross, MD, PhD Emory University
2:00 pm	Optogenetics in Epilepsy	Esther Krook-Magnuson, PhD University of Minnesota
2:30 pm	Opto-Inspired DBS for Parkinson's Disease	Teresa Spix, BS Carnegie Mellon University
3:00 pm – 3:15 pm	Coffee Break in the Exhibit Hall	
3:15 pm – 5:45 pm	Deep Brain Stimulation	
3:15 pm	Mechanism of Action of Current DBS, Limitations, and Closed-loop Systems	Prasad Shirvalkar, MD, PhD UC San Francisco
3:45 pm	Gray Matter Targets for Movement Disorders & Postulated Mechanism of Action	Sean Nagel, MD Cleveland Clinic
4:15 pm	Selective Stimulation in DBS	Michael Moffitt, PhD Boston Scientific
4:45 pm	White Matter Tracts/Networks Indirectly Stimulated with DBS for Movement Disorders	Jennifer Sweet, MD Case Western Reserve University
5:15 pm	Future Applications of DBS: Novel Diseases and Targets, from Bench to Bedside	Andre Machado, MD, PhD Cleveland Clinic
5:45 pm – 6:15 pm	Oral Posters & Group Discussion	

Agenda Tuesday Nov 6

8:00 am	Welcome & Logistics	Eric J. Grigsby, MD, MBA Co-Founder of Neuromodulation: The Science
8:15 am – 12:30 pm	Spinal Cord Stimulation	
8:15 am	The Principles of Pain Gate Control: What Preceded It and What Came After . . . ?	Bengt Linderöth, MD, PhD Karolinska Institutet
8:45 am	Impact of Electrical Charge Delivery on Pain Inhibition by Conventional and Sub-threshold Spinal Cord Stimulation	Yun Guan, MD, PhD Johns Hopkins University School of Medicine
9:15 am	Ongoing SCS Optimization Journey: What Works, and How it Works	Michael Moffitt, PhD Boston Scientific
9:45 am	MOA and Clinical Evidence for 10kHz HF-SCS	Kerry Bradley, MS Nevro
10:15 am	Break	
10:30 am	Gene Changes Induced by SCS	Ricardo Vallejo, MD, PhD Millennium Pain Center
11:00 am	Closed Loop SCS and Evoked Compound Action Potentials	Milan Obradovic, MBIomedE Saluda Medical
11:30 am	A New Translational Model for Mechanistic Study of Spinal Cord Stimulation	Kate Meacham, MD, PhD Washington University in St. Louis
12:00 pm	New Approaches and Models to Study MoA of SCS	Andrei Sdrulla, MD, PhD OHSU Comprehensive Pain Center
12:30 pm – 1:00 pm	Oral Posters & Group Discussion	
1:00 pm	Adjourn	