



# SATURDAY, JANUARY 20, 2024

**BREAKFAST SESSIONS - 7:00 AM – 8:00 AM**

**CHOOSE ONE SESSION BELOW**

## Removing Barriers for the Implementation of SCS

Welcome	<i>Moderators:</i> David Provenzano, MD Joshua Rosenow, MD
Coverage Determination Policies and Audits: What you Need to Know	David Provenzano, MD
Manage Denials	Joshua Rosenow, MD
Identifying and Limiting Socioeconomic Disparities.	Vwaire Orhurhu MD, MPH
New Technology Evaluation -The AMA CPT and RUC Process	Damean Freas, MD
Panel Discussion	Panel
Closing	David Provenzano, MD Joshua Rosenow, MD

## Closed-Loop and Adaptive Brain Stimulation Across Disorders

Welcome	<i>Moderators:</i> Prasad Shirvalkar, MD, PhD Coralie deHemptinne , PhD
Parkinson's Disease	Simon Little, PhD
OCD	Nicole Provenza, PhD
Essential Tremor	Coralie deHemptinne, PhD
Chronic Pain	Prasad Shirvalkar, MD, PhD
Closing Discussion	Prasad Shirvalkar, MD, PhD Coralie deHemptinne , PhD

## Patterns of Neurostimulation

Welcome	<i>Moderators:</i> Andrei Sdrulla, MD, PhD Marom Bikson, PhD
Model-Based Optimization of Spatial Targeting During Spinal Cord Stimulation	Scott Lempka, PhD
Advanced Temporal Patterns to Improve the Efficacy of Spinal Cord Stimulation	Warren Grill, PhD
Closed-loop Peripheral Nerve Stimulation to Normalize the Pathological Activity Associated with Chronic Pain	Sridevi Sarma, PhD
Closed-loop Deep Brain Stimulation Using Neural and Kinematic Feedback	Helen Bronte-Stewart, MD, MS
Panel Discussion	Panel
Closing Discussion	Andrei Sdrulla, MD, PhD Marom Bikson, PhD

## Artificial Intelligence, Precision Medicine, and the Future of Personalized Neuromodulation Therapy

Welcome	<i>Moderators:</i> Ryan D'Souza, MD John Freeman, MD
A.I. 101: A Primer in Artificial Intelligence	Ryan D'Souza, MD
Innovations in Neuromodulation Technology Incorporating Artificial Intelligence	Nima Adimi, MD, MS
Delivering Precise Care in Neuromodulation: What Factors Should be Considered in Artificial Intelligence Algorithms When Selecting the 'Right' Treatment for the 'Right' Patient	Jay Karri, MD, MPH
Neuromodulation Digital Storing: Is Cybersecurity a Threat?	Ankur Patel, DO
Panel Discussion	Panel
Closing Discussion	Ryan D'Souza, MD John Freeman, MD

## Neuromodulation as a Reperfusion Mechanism: Insights on Ischemia

Welcome	<i>Moderators:</i> Erika Dawood Sayed, MD Tim Lamer, MD
Neuromodulation Effects on Peripheral Vasculature in Painful Diabetic Neuropathy	Dawood Sayed MD
Refractory Angina Pectoris: Stent, Surgery, or Stim	Christine Hunt, DO
Dorsal Column Stimulation for Critical Limb Ischemia	Michael Leong, MD
Dorsal Root Ganglion Stimulation: Promises for Perfusion	Kenneth Chapman, MD
Panel Discussion	Panel
Closing Discussion	Dawood Sayed, MD Tim Lamer, MD

## Novel Intrathecal Delivery Opportunities: Bridging the Gap

Welcome	<i>Moderators:</i> Erik Shaw, DO Michael Saulino, MD, PhD
IDD: Review and Current Limitations	Salim Hayek, MD, PhD
New Potential IDD Agents	Tony Yaksh, PhD
Complex Programming	Erik Shaw, DO
Intrathecal Emergencies	Michael Saulino, MD, PhD
Panel Discussion	Panel
Closing Discussion	Erik Shaw, DO Michael Saulino, MD, PhD

## Break 8:00 AM – 8:30 AM

## PLENARY III 8:30 AM – 10:00 AM

### Artificial Intelligence in Shaping Neuromodulation Scientific Advances: Friend or Foe?

Welcome	<i>Moderators:</i> Ellen Air, MD, PhD Ahmed Raslan, MD, FAANS
Artificial Intelligence-driven Therapy Recommendations: Real-world Experience and Learnings	Rick Rauck, MD
Impact of Remote Management on SCS Clinical Outcomes and Potential Opioid Sparing	Marc Russo, MD
Introduction of Keynote Speaker	Julie Pilitsis, MD, PhD, MBA
AI, Innovation and What Really Matters in the New Era of Digital Health	Keynote Speaker Jesse Ehrenfeld, MD, MPH
Closing Discussions	Ellen Air, MD, PhD Ahmed Raslan, MD, FAANS

## Break 10:00 AM – 10:30 AM

## CONCURRENT SESSIONS 10:30 AM – 12:00 PM

### CHOOSE ONE SESSION BELOW

#### Basic Science Perspectives on Spinal Cord Stimulation: Mechanisms of Action

Welcome	<i>Moderator:</i> Scott Lempka, PhD
Cellular and Network Effects of Spinal Cord Stimulation	Warren Grill, PhD
Physiological Effects and Mechanisms of Action of Spinal Cord Stimulation to Treat Pain: Insights from Computational Models and Quantitative Sensory Testing.	Scott Lempka, PhD
Modulation of Superficial Dorsal Horn Inhibitory Populations by Clinically-relevant Dorsal Column Stimulation Parameters	Andrei Sdrulla, MD, PhD
Role of Spike Synchrony in Perception	Steve Prescott, MD, PhD
Molecular and Behavioral Experimental Approaches to Understanding SCS Mechanisms	Bert Joosten, PhD
Abstracts	TBD
Closing Discussion	Scott Lempka, PhD

#### Expanding Our Reach: Neuromodulation in Genitourinary Conditions, Pelvic Pain and Sexual Dysfunction

Welcome	<i>Moderator:</i> Corey Hunter, MD
Role of Neuromodulation in Pelvic Pain	Corey Hunter, MD
Is Neuromodulation a Viable Option for Neurogenic Bladder?	Rose Khavari, MD
Future Neuromodulation Technologies for the Management of Lower Urinary Tract Dysfunctions	Evegeniy I. Kreydin, MD
Pain and Sexual Dysfunction in Men and Women: Does Neuromodulation Play a Role?	Priyanka Gupta, MD
Abstracts	TBD
Closing Discussion	Corey Hunter, MD

#### Peripheral Nerve Stimulation Advances

Welcome	<i>Moderators:</i> Konstantin Slavin, MD, PhD Chris Gilligan, MD
The Right Peripheral Nerve Stimulation (PNS), the Right Patient, the Right Clinical Condition: Choosing the Optimal PNS Device from the Multiple Available FDA-approved Options	Mayank Gupta, MD
How to Choose your PNS paradigm in Routine Clinical Practice: Trial-less Placement, Temporary Implant, or Conventional Trial/implant?	David Dickerson, MD
The Future of PNS: New Indications, New Devices, New Guidelines	Jennifer Hah, MD, MS
Abstracts	TBD
Closing Discussion	Konstantin Slavin, MD, PhD Chris Gilligan, MD

## Neuromodulation for "Non-Conventional" Pain Indications

Welcome	<i>Moderators:</i> Natalie Strand, MD Dalia Elmofty, MD
Pro: Neuromodulation is Indicated to Treat Fibromyalgia Pain	Pro: Natalie Strand, MD
Con: Neuromodulation is Not Ready for Prime Time in the Treatment of Fibromyalgia	Con: Ryan D'Souza, MD
Pro: Neuromodulation is Indicated to Treat Central Neuropathic Pain (from Multiple Sclerosis)	Pro: Dalia Elmofty, MD
Con: Neuromodulation is Not Ready for Prime Time in the Treatment of Central Neuropathic Pain	Con: Tim Lamer, MD
Pro: Neuromodulation is Indicated to Treat Chronic Visceral Abdominal/pelvic Pain	Pro: Kiran Patel, MD
Con: Neuromodulation is Not Ready for Prime Time in the Treatment of Chronic Visceral Abdominal/pelvic Pain	Con: Rany Abdallah, MBA, MD, PHD
Abstracts	TBD
Closing Discussion	Natalie Strand, MD Dalia Elmofty, MD

## Updates for Advanced Practice Providers in Neuromodulation

Welcome	<i>Moderators:</i> Christy Gomez, APRN Lauren Cimino, APRN
Top Ten Neuromodulation Research Articles to Review from 2023	Ashley Mears, PA
Resources for Cognitive Behavioral Therapy – Optimizing Patient Outcomes	Megan Filoramo, RN
DBS for Pain Management – Case Review	Lauren Cimino, APRN
Abstracts	TBD
Closing Discussion	Christy Gomez, APRN Lauren Cimino, APRN

## Advanced Wearables In Neuromodulation and Brain Monitoring

Welcome	<i>Moderators:</i> Marom Bikson, PhD Giuseppina Pilloni, PhD
Wearable Platform for Closed-loop Stimulation and Recording of Single-neuron and Local Field Potential Activity in Freely Moving Human	Dejan Markovic, PhD
Portable and Wearable Brain Technologies for Neuroenhancement and Neurorehabilitation	Hasan Ayaz, PhD
Deployable Home-based Transcranial Direct Current Stimulation	Giuseppina Pilloni, PhD
Highly Deployable and Wearable Non-invasive Electrical Stimulation	Mohamad FallahRad, MS
Abstracts	TBD
Closing Discussion	Marom Bikson, PhD Giuseppina Pilloni, PhD

## Industry Sponsored Lunch Symposia 12:00 PM –1:30 PM *\*Not eligible for CME*

## PLENARY SESSION IV 1:30 PM – 3:30 PM

### The Future is Now: Late Breaking Science Updates

Welcome	<i>Moderators:</i> Ashwin Viswanathan, MD Al Abd-Elsayed, MD, MPH Stephanie Vanterpool, MD, MBA
Late Breaking Abstracts	TBD
Kumar Award Winner	TBD
TBD	TBD

## Break 3:30 PM – 4:00 PM

## CONCURRENT SESSIONS 4:00 PM – 5:30 PM

### CHOOSE ONE SESSION BELOW

#### My Own Worst Complications in Pain - For Attendings

Welcome

*Moderators:*  
Steven Falowski, MD  
Jason Pope, MD

My Own Worst Complications in Pain- Cases

Mike Esposito, MD  
Andrew Ko, MD  
Sandy Christiansen, MD

Closing Discussion

Steven Falowski, MD  
Jason Pope, MD

#### Novel Applications of Neuromodulation for Stroke Rehabilitation

Welcome

*Moderators:*  
Andre Machado, MD, PhD  
Rushna Ali, MD

Cerebellar Stimulation for Stroke Rehabilitation

Andre Machado, MD, PhD

Cervical Spinal Cord Stimulation in Post-stroke Hemiparesis

Marc Powell, BS, PhD

Vagus Nerve Stimulation for Motor Recovery After Stroke

Jesse Dawson, MD

Transcranial Magnetic Stimulation for Motor Rehabilitation After Stroke

Zafer Keser, MD

Abstracts

TBD

Closing Discussion

Andre Machado, MD, PhD  
Rushna Ali, MD

#### Neuromodulation and Athletics: Parallels and Lessons

Welcome

*Moderators:*  
Tim Deer, MD  
Eric Lee, MA, MD

What the NFL taught me that Helped my Medical Career

John Michels, MD

Neuromodulation as a Competitive Sport

Tim Deer, MD

What do I Teach College Athletes?

Rashaad Carter

What is Missing from the Neuromodulation Community that Athleticism can Teach us?

Eric Lee, MA, MD

Abstracts

TBD

Closing Discussion

Tim Deer, MD  
Eric Lee, MA, MD

## Roundtable Discussion: Redefining Pain Management - How AI and Digital Health Tools are Shaping the Future of Neuromodulation Therapy

Welcome	<i>Moderators:</i> Magda Anitescu, MD, PhD, FASA Michael Staudt, MD
An Overview of Artificial Intelligence: What it Is, and What it Isn't	Jeffrey Rogers, PhD
Utilizing App-based Digital Health Tools to Enhance the SCS Patient Experience	Jennifer Lee, MD
Advanced Digital Health Tools to Improve Patient Flow, Office Efficiencies, and Access to Care	Reda Tolba, MD
A Day in Life: How Advances in AI Makes our Life Easier	Austin Reilly, MD
Patient States: Artificial Intelligence-Driven Metric Providing Comprehensive Yet Straightforward Understanding of Chronic Pain Patients	Richard Rauck, MD
How We Incorporate AI for Neuromodulation in Education	Vinny Francio, MD, MS
Wearables and their Influences	Michael Staudt, MD
Round Table Discussions	Magda Anitescu, MD, PhD, FASA Michael Staudt, MD

## Consider Pain Ethics: Take a Deep Breath Coping with Macro and Microaggression

Welcome	<i>Moderators:</i> Dalia Elmofty, MD Natalie Strand, MD
Estimating Implicit and Explicit Bias in Pain Management	Johnathan Goree, MD
Coming Face to Face with Microaggression	Natalie Strand, MD
Bystander Empowerment: Responding to Racism, Discrimination, and Microaggression in Clinical Settings	Dalia Elmofty, MD
Discrimination Training: Improving Pain Management for Minority Patients by Medical Providers	Jaleesa Jackson, MD
Abstracts	TBD
Closing Discussion	Dalia Elmofty, MD Natalie Strand, MD

## Role of DRG Circuitry in Pain

Welcome	<i>Moderator:</i> Patrick Dougherty, PhD
Anatomy....Accessibility to Circulating and Intrathecal Drugs	Tony Yaksh, PhD
Changes in the Genome of the Stimulated DRG	Richard Vallejo, MD, PhD
Electrophysiology of the Human DRG	Patrick Dougherty, PhD
Abstracts	TBD
Closing Discussion	Patrick Dougherty, PhD