

# SESSION/FACULTY LIST

## ABS1 - Abstract Session I: Central Neural Networks

Faculty/Oral Abstract Presenter	Presentation Title
Ryan Austerman, MD	Predictors of Favorable Discharge Disposition after Deep Brain Stimulation from a Large National Database
Dario J. Englot, MD PhD	Neural Network Trained on Distant Cortico-Cortical Evoked Potentials Can Localize Ictal Onset in Focal Epilepsy
Jasmine W. Jiang, BS	Differences between Left and Right Temporal Lobe Epilepsy Using Resting-State Network fMRI and SEEG Connectivity
Vibhor Krishna, MD	Algorithm-Guided Deep Brain Stimulation Programming Using Automated Motion Sensor-Based Functional Mapping Improves Programming Efficiency
Danika Paulo, MD	SEEG Functional Connectivity Measures to Identify Epileptogenic Zones: Stability, Medication Influence, and Recording Condition
Danika Paulo, MD	Relating Neurocognition and Connectivity Between Arousal Structures and Intrinsic Connectivity Networks in Temporal Lobe Epilepsy

## ABS2 - Abstract Session II: Optimizing Spinal Stimulation

Faculty/Oral Abstract Presenter	Presentation Title
Kasra N. Amirdelfan, MD	Pooled analysis of 10 kHz SCS in patients with failed neck surgical syndrome
Steven M. Falowski, MD	Two-Year Clinical and QoL Outcomes of the EVOKE Study for Chronic Pain
Michael A. Fishman, MD MBA	The Effect of Electrode Selection on Optimal Spinal Evoked Compound Action Potential Sensing
Robert Graham, BS	Patient-specific models of spinal cord stimulation for chronic pain management
Martyn Jones, PhD	Ultra-Low-Frequency Current Waveforms Attenuates Activity in Dorsal Root Filaments in a Rodent Pain Model
Julie G. Pilitsis, MD PhD	The Spinal Evoked Compound Action Potential as a Predictor for Perception
Ricardo Vallejo, MD PhD	Clinical Feasibility of in Home, Closed-Loop Spinal Cord Stimulation with Differential Target Multiplexed Therapy

## ABS3 - Abstract Session III: Spinal Stimulation Mechanisms I

Faculty/Oral Abstract Presenter	Presentation Title
David Cedenio, PhD	Transcriptomics of Differential Target Multiplexed SCS using Reduced Energy in a Model of Neuropathic Pain
Lee Fisher, PhD	Selective Stimulation of the Dorsal Root Ganglia with Epineural Macroelectrodes
Niranjan Khadka, PhD	High Density Spinal Cord Stimulation (HD-SCS) increases spinal tissue temperature
Bryan McLaughlin, PhD	An unfolding, injectable micro-paddle for efficient spinal cord stimulation
Jingya Miao, MS	Case Study: Dynamic Network Connectivity of Chronic Back Pain
Ilona Obara, PhD	Electrically Evoked Compound Action Potentials in a Rat Model of Spinal Cord Stimulation
Aaron Suminski, PhD	Assessing Thresholds for Activation of the Pain Pathways in a Rodent Model of SCS
Ricardo Vallejo, MD PhD	Cell-Specific Transcriptomics of DTM SCS in a Model of Neuropathic Pain: Effect of Stimulation Intensity.

## ABS5 - Abstract Session V: SCS Clinical Trials I

Faculty/Oral Abstract Presenter	Presentation Title
Harold J. Cornder, MD	RCT Comparing Traditional and DTM SCS for Back Pain: Profound Relief, Functional and QoL Benefits.
Corey W. Hunter, MD	Burst Stimulation Therapy Improves Pain Relief and Emotional Well-being in Patients with Waning SCS Therapy
Philip S. Kim, MD	RCT of Traditional vs DTM SCS for Chronic Back Pain: Relief, Satisfaction and Sensory Experience.
Ilknur Telkes, MS PhD	Feasibility of Dorsal Column Mapping by High-resolution Spinal Cord Stimulation in Patients with Chronic Pain
Thomas L. Yearwood, MD PhD	RCT Comparing High-Frequency SCS (10kHz) to Medical Management for Non-Surgical Refractory Back Pain: Single-Site Results
Thomas L. Yearwood, MD PhD	Transgrade Multimodal Neuromodulation of Dorsal Root Ganglion Ensemble for Refractory Neuropathic pain: DRGON Study

## S04 - Accelerating Non-Pain Physician Awareness of The Role of Neuromodulation: A Discussion in Healthcare Delivery Science

Faculty/Oral Abstract Presenter	Presentation Title
David Dickerson, MD	What Is Healthcare Delivery Science or Implementation Medicine and Why Does It Mean to Neuromodulation?
Johnathan H. Goree, MD	How Can We Accelerate Uptake and Practice Change in Non Pain Care Specialist Awareness and Recommendation for Neurostimulation?
Dawood Sayed, MD	Strategies for Stakeholder Alignment to Drive Patient Access to Neurostimulation
Maricela Schnur, MD MBA	What Gaps and Barriers Impact Patient Access to Neurostimulation?

## F11 - Adaptive and Closed Loop Brain Neuromodulation

Faculty/Oral Abstract Presenter	Presentation Title
Dario J. Englot, MD PhD	Reciprocal Functional Connectivity of Amygdala in Mesial Temporal Lobe Epilepsy: a Single-Pulse Electrical Stimulation Study
Roe Gilron, PhD	aDBS for PD
Casey H. Halpern, MD	RNS for Obesity
Prasad Shirvalkar, MD PhD	aDBS for Chronic Pain
Gregory Worrell, MD PhD	aDBS for Epilepsy

## F06 - Advanced Neuromodulation for Psychiatric Disorders

Faculty/Oral Abstract Presenter	Presentation Title
Kelly D. Foote, MD	RNS for Tourettes
Nicole Provenza, BS	Identification of Candidate Neural Biomarkers of OCD Symptom Intensity

#### **F04 - Advances in Neuromodulation in Cancer Pain**

<b>Faculty/Oral Abstract Presenter</b>	<b>Presentation Title</b>
Tammy L. Dann, DO MPH	Intrathecal Therapy Dosing Strategies for Cancer Pain
Amitabh Gulati, MD	Optimization of Spinal Cord Stimulation for Cancer Pain
Sanjeet Narang, MD	Improved Cancer Pain Management Through Understanding of Intrathecal Pharmacokinetics/Pharmacodynamics
Scott Pritzlaff, MD	Emerging Evidence for Peripheral Nerve Stimulation and Cancer Pain

#### **S07 - Brain Neuromodulation - Where Is the Evidence for What We Do? (CNS Session)**

<b>Faculty/Oral Abstract Presenter</b>	<b>Presentation Title</b>
Ellen Air, MD PhD	Developing Multidisciplinary Guidelines - the Example of SCS
Sharon Ben-Haim, MD	Surgery for Epilepsy
Darryl Narcisse, MD	Optogenetic Modulation of the Central Nervous System for Acute and Chronic Pain
Heather Pinckard-Dover, MD	Surgery for Movement Disorders
Nathan Rowland, MD	Surgery for Psychiatric Disorders
Moheb Yani, PhD	Cortical Neuromodulation of Pelvic Floor Muscle Tone: A Proof-of-Concept Study

#### **S09 - Comparing Competing Therapies Using S.A.F.E. Analysis**

<b>Faculty/Oral Abstract Presenter</b>	<b>Presentation Title</b>
Christopher Gilligan	SAFE Analysis of Medial Branch Muscle Stimulation vs. Radiofrequency Ablation for Facet Joint Pain
Robert L. Levy, MD	SAFE Analysis of DRG vs. SCS
Einar Ottestad, MD	SAFE Analysis of Spinal Cord Stimulation vs. Peripheral Nerve Stimulation for CRPS
Peter Staats, MD MBA	SAFE Analysis of Fixed Output SCS vs. Closed-Loop SCS for FBSS

#### **F02 - Connecting With the Future: Neuromodulation Art and Science Made Easy With Technology**

<b>Faculty/Oral Abstract Presenter</b>	<b>Presentation Title</b>
Magdalena M. Anitescu, MD PhD	A Skill and an Art: Best Ways to Learn Neuromodulation Techniques and Troubleshooting
Johnathan H. Goree, MD	Neuromodulation Teaching in Fellowship: How Much is Enough?
Kiran V. Patel, MD	These Are My Images: Connecting Special Groups via Social Media

#### **S03 - Controversies in Targeted Drug Delivery**

<b>Faculty/Oral Abstract Presenter</b>	<b>Presentation Title</b>
Jay S. Grider, DO PhD	To trial or not to trial: that is the question?
Jonathan M. Hagedorn, MD	Unique approaches to troubleshooting intrathecal delivery systems

## F07 - Dosing and the Spinal Cord: The Role of Cycling

Faculty/Oral Abstract Presenter	Presentation Title
Kasra N. Amirdelfan, MD	Prospective Multi-Center Study of a DTM SCS Derivative in Therapy-Naive Patients: Primary and 3-Month Outcomes
Gregory Davis, MD	Overdosing The Nervous System– Is This a Problem?
David A. Provenzano, MD	Human Data for Cycling – Clinical Outcomes & Battery Longevity
Damian Shin, PhD	Electrophysiological Basis of Cycling
Ricardo Vallejo, MD PhD	Future Scientific Methods to Optimize and Understand the Deployment of Cycling

## F12 - Emerging Technologies and Indications: Peripheral Nerve Stimulation

Faculty/Oral Abstract Presenter	Presentation Title
Tim Bruns, PhD	Pudendal Nerve Stimulation to Treat Detrusor Underactivity
Emily Graczyk, PhD	Improving the Experience of Sensory Neuroprostheses through Biomimetic Stimulation
Kip A. Ludwig, PhD	An Injectable Neural Stimulation Electrode for Vagus Nerve Stimulation
Matthew J. Pingree, MD	Real-World Evidence of Sustained Improvements Following Percutaneous PNS: Retrospective Cross-Sectional Follow-Up Survey of 354 Patients
Sridevi Sarma, PhD	Closed-Loop Peripheral Nerve Stimulation to Treat Chronic Pain

## S10 - Engineering Challenges to Incorporate Brain Circuits in Device Designs

Faculty/Oral Abstract Presenter	Presentation Title
Daria Anderson, PhD	Precision Anatomical Targeting with Multi-Contact Intracranial Electrodes
Coralie De Hemptinne, PhD	Chronic Recordings for Circuit Identification
Andreas Horn, MD PhD	Imaging to Identify Therapeutic Neural Circuits
Vivek Pinto, PhD	FDA: OHT5 Infrastructure and Regulatory Pathways for Premarket Submissions
Cynthia Steinhardt, BA	Novel Neural Implant Front-End for Inducing Naturalistic Firing Using Machine Learning

## F09 - Engineering Principles in Neurostimulation: Emerging Concepts

Faculty/Oral Abstract Presenter	Presentation Title
Magdalena M. Anitescu, MD PhD	Patient States: Artificial Intelligence-Driven Metric Providing Comprehensive Yet Straightforward Understanding of Chronic Pain Patients
Marom Bikson, PhD	SCS: Subthreshold Mechanisms
Scott Lempka, PhD	SCS: New waveforms and Mechanisms of Action
Cameron McIntyre, PhD	DBS: Synaptic Suppression (or StimVision)
Svjatlana Miodinovic, MD PhD	DBS: New Waveforms and Lead Designs

### S11 - Focused Ultrasound for Modulation of The Nervous System

Faculty/Oral Abstract Presenter	Presentation Title
Jonathan Bao	Effects of Low-Intensity Focused Ultrasound on Neuronal Activity in Pain Processing Regions of the Brain
Alexander Bystritsky, MD PhD	Low intensity ultrasound for epilepsy
Joshua Cain, PhD	Low Intensity Ultrasound for Coma
Jan Kubanek, PhD	Remote modulation of ion channel activity
Duc Nguyen	Neuronal responses to transcranial focused ultrasound stimulation (tFUS) are gated by pre-stimulation brain state

### S08 - Innovations in Patient and Provider Education to Improve Access to Neuromodulation

Faculty/Oral Abstract Presenter	Presentation Title
Eric Cornidez, MD MBA	Using Telemedicine and Community Education to Improve Spinal Cord Stimulation Access in Rural, Underserved Populations
Juliet Gaisey, MD	Neuromodulation Education During Fellowship: Potential Barriers to Independent Practice and Cases Needed for Proficiency
Jaleesa Jackson, MD	Increasing the Pipeline: How Can Diversity, Equity, and Inclusion Programs Increase Access to Neuromodulation Related Fields?
Geethanjeli Mahendran, BS	Identifying and Breaking Barriers to Cochlear Implantation
Parag G. Patil, MD PhD	Improving access to Deep Brain Stimulation through Patient Education

### F13 - Intrathecal Drug Delivery: From Pharmacy to Pumps

Faculty/Oral Abstract Presenter	Presentation Title
Tammy L. Dann, DO MPH	Optimizing Intrathecal Drug Choice with Catheter Placement
Joshua P. Prager, MD MS; Tony Yaksh, PhD	Horizons on Intrathecal Therapy: The Bench to The Bedside
Ann C. Shah, MD	Drug Interactions and Pharmacodynamics of Compounded Intrathecal Delivery
Soun Sheen, MD	Intrathecal Bupivacaine and Clonidine Therapy for Refractory Hyperhidrosis in a Spinal Cord Injury Patient

### F08 - Neuromodulation for the Treatment of Craniofacial Pain

Faculty/Oral Abstract Presenter	Presentation Title
Albert Leung, MD	International Guidelines on TMS for Use on Headache and Chronic Pain
Brian Lundstrom, MD PhD	Transcranial Magnetic Stimulation and Motor Cortex Stimulation for Treatment of Intractable Craniofacial Pain
Matthew J. Pingree, MD	Peripheral Nerve Stimulation in Treatment Cranial Neuralgias and Trigeminal Autonomic Cephalalgias

## S06 - New Targets and Paradigms for Psychiatric Neuromodulation

Faculty/Oral Abstract Presenter	Presentation Title
Kelly R. Bijanki, PhD	Amygdala/Cingulate Stimulation for Depression
Jungho Cha, PhD	Longitudinal Changes in Default Mode Network with Subcallosal Cingulate Deep Brain Stimulation for Treatment-Resistant Depression
Nicole Provenza, BS	Long-term Ecological Assessment of Intracranial Electrophysiology Synchronized to Behavioral Markers in Obsessive-Compulsive Disorder

## S01 - Partnering With Our Patients to Optimize Outcomes

Faculty/Oral Abstract Presenter	Presentation Title
Ryan D'Souza, MD	Utilizing Patient tools and outcomes to define 'success'
Ashley Mears, PA	Setting Realistic Expectations for Long-Term Success
Kiran V. Patel, MD	Choosing neuromodulation versus medication in the therapy algorithm
Robert L. Rider, PhD	Assessing and treating mental health in the context of neuromodulation

## PL01 - Plenary Session I: The Next Generation

Faculty	Presentation Title
Susan M. Moeschler, MD; Stephanie G. Vanterpool, MD MBA	Moderators
Rany T. Abdallah, MD PhD MBA	NANS Neuromodulation Certification: Ensuring Access to Quality
Vwaire Orhurhu, MD	Telehealth, Remote Care, and Improving Patient Access
David A. Provenzano, MD	Advocacy Update: How NANS is Working for You and Your Patients
Peter Konrad, MD PhD	Presidential Address
Peter Konrad, MD PhD	Life Time Achievement and Distinguished Service Award Presentation

## PL02 - Plenary Session II: The Future of Neuromodulation

Faculty	Presentation Title
Nebojsa Nick Knezevic, MD PhD; Peter Konrad, MD PhD	Moderators
Paul Rudolf, MD JD	Impact of OIG Changes for NANS Membership
Timothy Denison, PhD	Fundamentals of Physiologic Closed-Loop Control (PCLC) Systems: Road to AI?
Ali R. Rezai, MD	Neuromodulation for Addiction
Travis N. Rieder, PhD	Keynote Address: What Becoming a Patient Taught Me About America's Problems With Pain and Opioids

### PL03 - Plenary Session III: Late-Breaking Clinical Trials

Faculty/Oral Abstract Presenter	Presentation Title
Ellen Air, MD PhD; Anuj Bhatia, MD; Nebojsa Nick Knezevic, MD PhD; John Markman, MD	Moderators
Erika A. Petersen, MD	Durability of 10-kHz Spinal Cord Stimulation for Painful Diabetic Neuropathy-18-Month Multicenter Randomized Controlled Trial Results
Bradford Jones, DO	Determining the Prognostic Value of Continuous Intrathecal Infusion
Guilherme Santos Piedade, MD	The influence of stimulation frequency in DRG stimulation – a double-blind randomized trial
Leonardo Kapural, MD PhD	Twelve-month outcomes from RCT: 10kHz Spinal Cord Stimulation for treating Non-surgical Refractory Back Pain

### PL04 - Plenary Session IV: Optimizing Neuromodulation to Improve Patient Outcomes

Faculty	Presentation Title
Salim M. Hayek, MD, PhD Kiran V. Patel, MD	Moderators
Ryan D'Souza, MD	The Role of Social Media for Patient Care
Suzanne Manzi, MD	Building the Future of Your Neuromodulation Practice
Samer N. Narouze, MD PhD	Keeping Our Patients Safe: Updates on Patient Safety Strategies
Sandy Christiansen, MD	Lisa Stearns Award Winner

### S05 - Spinal Cord Stimulation Mechanisms: Results from Animal Studies

Faculty/Oral Abstract Presenter	Presentation Title
David Cedeno, PhD	SCS Alters Spinal Cord Gene Expression
Christine Hunt, DO	SCS Modulation of Microglia
Ilona Obara, PhD	Using ECAPS to Investigate Pharmacology of SCS
Andrei Sdrulla, MD PhD	SCS Effects on Molecularly Defined Dorsal Horn Circuits

### S12 - Using Neuromodulation for The Abdomen, Pelvis and Genitourinary Systems

Faculty/Oral Abstract Presenter	Presentation Title
Jiande Chen, PhD	Closed-loop Intestinal Electrical Stimulation Ameliorates Hyperglycemia by Enhancing Incretin Hormones in Type 2 Diabetic Rats
Deborah Duricka, PhD	Device Explant Disposition: An Institute of Neuromodulation Survey
Leonardo Kapural, MD PhD	Using Neuromodulation for Abdominal Pain
Jordan Tate, MD	Using Dorsal Column Stimulation for Pelvic Pain