



THURSDAY, JANUARY 13

8am-5pm

PRE-MEETING COURSES

ADVENTHEALTH
NICHOLSON CENTER

NANS Advanced Therapies Workshop for Pain and Neuromodulation

Directors: Kiran V. Patel, MD; Michael Hanes, MD

Neuromodulation Cadaver Course for Neurosurgery and Neurology Residents and Fellows

Directors: Ahmed Raslan, MD; Ashwin Viswanathan, MD

8 am-5 pm

PRE-MEETING COURSES

WALT DISNEY WORLD
SWAN & DOLPHIN
RESORT

8 am-5 pm

Advanced Practice Provider Course (PAs, NPs, Nurses)

Directors: Chelsey Hoffmann, RD PA-C; Teresita Devera, MSN, CRNP, ANP-BC; Jaclyn Pappas, MSN, APRN, FNP, CDE

8:30 am-5 pm

Intrathecal Therapy: Case-Based Learning & Hands-On Skill Training

Directors: Michael F. Saulino, MD PhD; Erik Shaw, DO

8 am-5 pm

Engineering Principles of DBS and SCS in Clinical Practice: General Introduction and Emerging Concepts

Directors: Marom Bikson, PhD; Scott Lempka, PhD

8 am-5 pm

I³: Innovation in a Hyper-Connected World

Directors: Ashwini D. Sharan

FRIDAY, JANUARY 14

7-8 am

CONCURRENT SESSION I

Beyond Pain and Nerves: Applied Neuromodulation for Vascular, Non-Vascular, Visceral and Residual COVID-19 Co-Morbid Conditions

Moderators: Jennifer Hah, MD; Damian S. Shin, MSc, PhD

A Different Type of Pacemaker: Cardiac Function and Neuromodulation for Heart Failure and Life Threatening Arrhythmias

Tim Lamer, MD

Pandemic After Effects: Use of Neuromodulation to Treat COVID-19 Sequelae

Peter S. Staats, MD

Vessels and Nerves Dysfunction in Diabetes Mellitus: Neuromodulation Techniques for the Treatment of Both

Dalia H. Elmofty, MD

Peripheral Nerve Stimulation for the Treatment of Overactive Bladder

Maunak V. Rana, MD

Advances in Neuromodulation in Cancer Pain

Moderators: Ann C. Shah, MD; David Copenhaver, MD

Improved Cancer Pain Management Through Understanding of Intrathecal Pharmacokinetics/Pharmacodynamics

Sanjeet Narang, MD

Intrathecal Therapy Dosing Strategies for Cancer Pain

Tammy L Dann, DO, MPH

Emerging Evidence for Peripheral Nerve Stimulation and Cancer Pain

Scott Pritzlaff, MD



Optimization of Spinal Cord Stimulation for Cancer Pain

Amitabh Gulati, MD

Device Troubleshooting for APPs

Moderators: Molly Liter, Christy A. Gomez Hupe, DNP

Need for revisions- why and when

Lauren Cimino, APRN, CNP

Prevention and Management of IPG Pocket Pain

Teresita Devera, MSN, CRNP, ANP-BC

Troubleshooting IT pumps

Chelsey Hoffman, PA-C, MS, RD

Connecting with the Future: Neuromodulation Art and Science Made Easy with Technology

Moderators: Meredith Barad, MD; Nebojsa Nick Knezevic, MD, PhD

Simulation and Virtual Reality in Neuromodulation: Lessons Learned

Maged Guirguis, MD

Neuromodulation Teaching in Fellowship: How Much Is Enough?

Johnathan H. Goree, MD

A Skill and an Art: Best Ways to Learn Neuromodulation Techniques and Troubleshooting

Magdalena M. Anitescu, MD, PhD

These Are My Images: Connecting Special Groups via Social Media

Jacqueline Weisbein, DO

FRIDAY, JANUARY 14

8:30-10:00 am PLENARY SESSION 1

THE NEXT GENERATION

Moderators: Susan M Moeschler, MD

The Role of Social Media for Patient Care

Ryan S. D'Souza, MD

Telehealth, Remote Care, and Improving Patient Access

Vwaire Orhurhu, MD

NANS Neuromodulation Certification: Ensuring Access to Quality

Rany T. Abdallah MD PhD MBA

Presidential Address

Peter E. Konrad, MD PhD

Lifetime Achievement and Distinguished Service Award Presentation

Peter E. Konrad, MD PhD

10:30 am- 12pm CONCURRENT SESSION II

Neuromodulation for Neurologic Recovery

Moderators: Rushna P. Ali, MD; Erika A. Petersen, MD

Deep brain stimulation for stroke recovery and rehabilitation

Andre G. Machado, MD

Utilizing advanced neuroimaging to guide target selection for management of tinnitus

Mark Jansenn

VNS/TMS in stroke

Jessie Dawson, MD

Transcranial magnetic stimulation for TBI

Theresa L. Bender Pape, DrPH, MA, CCC-SLP/LFACRM

Advanced Neuromodulation for Psychiatric Disorders



Moderators: *Kelly R. Bijanki, PhD; Ahmed Raslan, MD*

Closing the loop: adaptive DBS for OCD

Wayne Goodman, MD

RNS for tourettes

Kelly D. Foote, MD

Amygdala responsive neural stimulation for PTSD.

Jean-Philippe Langevin, MD

Singal Processing for Adaptive Neuromodulation to Treat Severe Intractable Mental Disorders

Nicole R. Provenza, PhD

Dosing and the Spinal Cord: The Role of Cycling

Moderators: *Lawrence Poree, MD PhD MPH; David A. Provenzano, MD*

Overdosing The Nervous System– Is This a Problem?

Gregory Davis, MD

Electrophysiological Basis of Cycling

Damian S. Shin PhD

Human Data for Cycling – Clinical Outcomes & Battery Longevity

David A. Provenzano, MD

Future Scientific Methods to Optimize and Understand the Deployment of Cycling

Ricardo Vallejo, MD, PhD

Neuromodulation for the Treatment of Craniofacial Pain

Moderators: *Meredith Barad, MD; Samer Narouze, MD PhD*

Patient Selection for Neuromodulation and Treatment Approach to Craniofacial Pain

Narayan R. Kisson, MD

Portable Non-Invasive Neuromodulation in the Treatment of Headache Disorders

Nathaniel Schuster, MD

Peripheral Nerve Stimulation in Treatment Cranial Neuralgias and Trigeminal Autonomic Cephalalgias

Matthew J. Pingree, MD

International Guidelines on TMS for Use on Headache and Chronic Pain

Albert Leung

Transcranial Magnetic Stimulation and Motor Cortex Stimulation for Treatment of Intractable Craniofacial Pain

Brian Lundstrom, MD, PhD

Engineering Principles in Neurostimulation: Emerging Concepts

Moderators: *Marom Bikson, PhD; Scott Lempka, PhD*

SCS: New waveforms and mechanisms of action

Scott Lempka, PhD

SCS: Subthreshold mechanisms

Marom Bikson, PhD

DBS: New waveforms and lead designs

Svjetlana Miocinovic, MD, PhD

DBS: Synaptic suppression (or StimVision)

Cameron McIntyre, PhD

Abstract Session

12:00-1:30 pm LUNCH SYMPOSIA (NON-CME)

1:30-3:30 pm PLENARY SESSION II

Moderators: *Lawrence Poree, MD PhD MPH*

Psychiatric Neuroengineering

Kafui Dzirasa, MD PhD



FDA Approval Standards for PCLC Systems: Do IMPACT and ION Guidelines Meet the Bar to Approval

Vivek Pinto, FDA Director - DHT5B: Division of Neuromodulation

Fundamentals of Physiologic Closed-Loop Control (PCLC) Systems: Road to AI?

Tim Denison

Keynote Address

Travis N. Rieder, PhD

3:45-5:15 pm CONCURRENT SESSION III

Identifying Alternative Cells Involved in SCS Therapy

Moderators: Magdalena Anitescu, MD PhD; Kate Meacham MD, PhD

Differential Therapy Multiplex – Identifying Alternative Cells Involved in SCS Therapy

Sam S. Eldabe, MD

Understanding the Role of Surround Inhibition in SCS Therapy

Joshua M. Rosenow, MD, FACS

Beyond the Gate: Clinical Evidence for the Novel Neuromodulation Mechanisms of Action

Mark Wallace, MD

Partnering with the US Government to Advance Neuromodulation

Moderator: Eugene Civillico, PhD

Office of the NIH Director, SPARC and Bridge2AI programs

Eugene Civillico, PhD

NIMH, neuromodulation, mental health

David McMullen, MD

Director of NIH Small Business Education and Entrepreneurial Development (SEED) Office

Matt McMahon, PhD

NINDS and neuromodulation

Kari Ashmont, PhD

Adaptive and Closed Loop Brain Neuromodulation

Moderators: Dario Englot, MD PhD; John Rolston, MD, PhD

aDBS for PD

Ian Gilron, MD, MSc, FRCPC

RNS for Obesity

Casey H. Halpern, MD

aDBS for epilepsy

Gregory Worrell, MD, PhD

aDBS for chronic pain

Prasad Shirvalkar, MD, PhD

Emerging Technologies and Indications: Peripheral Nerve Stimulation

Moderator: Lee Fisher, PhD, Kip A. Ludwig, PhD

Improving the experience of sensory neuroprostheses through biomimetic stimulation

Emily L. Graczyk, PhD

Pudendal nerve stimulation to treat detrusor underactivity

Tim M. Bruns, PhD

Closed-loop peripheral nerve stimulation to treat chronic pain

Sridevi V. Sarma, PhD

An injectable neural stimulation electrode for vagus nerve stimulation

Kip A. Ludwig, PhD

Intrathecal Drug Delivery: From Pharmacy to Pumps



Moderators: *Rushna Ali, MD; Mark Jones, MD*

Optimizing Intrathecal Drug Choice With Catheter Placement

Tammy L. Dann, DO, MPH

New Drugs in the Pipeline

Tony L. Yaksh, PhD

Novel Drug Strategies for Nonmalignant Pain

Jacqueline Weisbein, DO

Drug Interactions and Pharmacodynamics of Compounded Intrathecal Delivery

Ann C. Shah, MD

Abstract Session

SATURDAY, JANUARY 15

7-8 am CONCURRENT SESSION IV

Partnering With Our Patients to Optimize Outcomes

Moderators: *Teresita Devera, MSN CRNP ANP-BC; Chelsey Hoffman, PA-C, MS, RD*

Assessing and treating mental health in the context of neuromodulation

Marilyn Jacobs, PhD

Utilizing Patient tools and outcomes to define "success"

Ryan D'Souza, MD

Setting Realistic Expectations for Long-Term Success

Molly Liter

Choosing neuromodulation versus medication in the therapy algorithm

Kiran V. Patel, MD

Neuromodulation and Neurosurgical Mentorship and Educational Development

Moderators: *Michael D. Staudt, MD, MSc; Sharona Ben-Haim, MD*

Development and Implementation of a Neuromodulation Mentorship Program – the NANS Experience

Steven M. Falowski, MD

Improving the Technical Proficiency and Competency of Pain Medicine Fellows

Thomas P. Pittelkow, DO, MPH

Development and Implementation of a Neurosurgery Mentorship Program – the ASSFN Experience

Vibhor Krishna, MD

Assessing the Resident Learning Curve for Neurosurgical and Interventional Procedures

Holwer Joswig

Controversies in Targeted Drug Delivery

Moderators: *Michael F. Saulino, MD, PhD; Erik Shaw, DO*

The role of interleukin 10 in pain management

TBD

To trial or not to trial: that is the question?

Jay S. Grider, DO, PhD, MBA

Secondary benefits of intrathecal baclofen therapy

TBD

Unique approaches to troubleshooting intrathecal delivery systems

Jonathan M. Hagedorn, MD

Accelerating Non-Pain Physician Awareness of the Role of Neuromodulation: A Discussion in

Moderators: *Ramana Naidu, MD*

What Is Healthcare Delivery Science or Implementation Medicine and Why Does It Mean to Neuromodulation?

David Dickerson, MD



What Gaps and Barriers Impact Patient Access to Neurostimulation?

Maricela C. Schnur, MD, MBA

How Can We Accelerate Uptake and Practice Change in Non Pain Care Specialist Awareness and Recommendation for Neurostimulation?

Johnathan H. Goree, MD

Strategies for Stakeholder Alignment to Drive Patient Access to Neurostimulation

Dawood Sayed, MD



SATURDAY, JANUARY 15

8:30-10:00 am PLENARY SESSION III

Late-Breaking Clinical Trials

Moderators: Ellen L. Air, MD, PhD; Nebojsa Nick Knezevik, MD, PhD

10:30am-12:00pm CONCURRENT SESSION V

Spinal Cord Stimulation Mechanisms: Results from Animal Studies

Moderators: Christy L. Hunt, DO; David Cedeno, PhD

SCS Modulation of Microglia

Christy L. Hunt, DO

SCS Alters Spinal Cord Gene Expression

David Cedeno, PhD

SCS Effects on Molecularly Defined Dorsal Horn Circuits

Andrei Sdrulla, MD, PhD

fMRI Imaging During SCS in Rats

Antonietta Canna

Using ECAPS to Investigate Pharmacology of SCS

Ilona Obara, PhD

New Targets and Paradigms for Psychiatric Neuromodulation

Moderators: Cameron McIntyre, PhD; Damian S. Shin, MSc, PhD

Precision mapping the human cerebellum for neuromodulation for treating schizophrenia

Randy L. Buckner, PhD

Amygdala/cingulate stimulation for depression

Kelly R. Bijanki, PhD

Cerebellar stimulation for depression

Francis Bambico, PhD

Amygdala ablation for PTSD

Jon T. Willie, MD, PhD

Using ECAPS to Investigate Pharmacology of SCS

Ilona Obara, PhD

Brain Neuromodulation - Where is the evidence for what we do? (CNS Session)

Moderators: Nader Pouratian, MD; Julie Pilitsis, MD, PhD

Developing multidisciplinary guidelines - the example of SCS

Ellen L. Air, MD, PhD

Surgery for psychiatric disorders

Nathan C. Rowland, MD, PhD

Surgery for epilepsy

Sharon Ben-Haim, MD

Surgery for movement disorders

Heather Pinckard-Dover, MD

Innovations in Patient and Provider Education to Improve Access to Neuromodulation

Moderators: Johnathan H. Goree, MD; Stephanie G. Vanterpool, MD, MBA

Identifying and Breaking Barriers to Cochlear Implantation

Geetha Mahendran

Improving access to Deep Brain Stimulation through Patient Education

Parag G. Patil, MD, PhD



Using Telemedicine and Community Education to Improve Spinal Cord Stimulation Access in Rural, Underserved Populations

Eric Cornidez, MD, MBA

Increasing the Pipeline: How can Diversity, Equity, and Inclusion Programs Increase Access to Neuromodulation Related Fields?

Jaleesa Jackson, MD

Abstract Session



12:00-1:30 pm LUNCH SYMPOSIA (NON-CME)

1:30-3:30 pm PLENARY SESSION IV

Optimizing Neuromodulation to Improve Patient Outcomes

Moderators: Joshua M. Rosenow, MD

Advocacy Update: How NANS is Working for You and Your Patients

Joshua M. Rosenow, MD

Building the Future of Your Neuromodulation Practice

Suzanne M. Manzi, MD

Keeping our Patients Safe: updates on patient safety strategies

Samer N. Narouze, MD, PhD

Presentation of Kumar Award and Lisa Stearns Award

4:00-5:30 pm CONCURRENT SESSION VI

S.A.F.E

Moderators: kiran V. Patel, MD; Lawrence Poree, MD, PhD, MPH

SAFE Analysis of Phrenic Nerve Stimulation vs Mechanical Ventilation

Samuel Chesier, MD PhD

SAFE Analysis of DRG vs. SCS

Robert Levy, MD

SCS Effects on Molecularly Defined Dorsal Horn Circuits SAFE Analysis of Spinal Cord Stimulation vs. Peripheral Nerve Stimulation vs. Dorsal Root Ganglion Stimulation for CRPS

Einar Ottestad, MD

SAFE Analysis of Fixed Output SCS vs. Closed-Loop SCS for FBSS

Peter S. Staats, MD

SAFE Analysis of Medial Branch Muscle Stimulation Radiofrequency Ablation for Facet Joint Pain

Chris Gilligan, MD

Engineering Challenges to Incorporate Brain Circuits in Device Design

Moderators: John D. Rolston, MD, PhD; Doris D. Wang, MD, PhD

Imaging to identify therapeutic neural circuits

Andreas Horn, MD, PhD

Precision anatomical targeting with multi-contact intracranial electrodes

Daria Anderson, MS

Circuit dynamics and intrinsic neuromodulation

TBD

Chronic recordings for circuit identification

Coralie De Hemptinne, PhD

Focused Ultrasound for Modulation of the Nervous System

Moderators: Raag Airan, MD, PhD; Nathan McDannald

Ultrasonic drug uncaging and neuromodulation

Raag Airan, MD, PhD

Remote modulation of ion channel activity

Jan Kubanek, PhD

Low intensity ultrasound for epilepsy

Alexander Bystritsky, MD, PhD

Low intensity ultrasound for coma

Caroline Schnakers, PhD



Using Neuromodulation for the Abdomen, Pelvis, and Genitourinary Systems

Moderators: *Corey W. Hunter, MD; Jordan Tate, MD*

Using Neuromodulation for Abdominal Pain

Leo Kapural, MD

Improving access to Deep Brain Stimulation through Patient Education

Corey W. Hunter, MD

Using Dorsal Column Stimulation for Pelvic Pain

Jordan Tate, MD

Sacral Nerve Stimulation for Genitourinary Pathology

Rebecca McCrery, MD

Abstract Session

**Faculty and presentations subject to change.*