
**Program at a Glance**

## Pre-Conference Days May 22 - 23

**May 22 - Pre-Conference: Noninvasive Brain Stimulation**
Click here for more information

**May 23 - Pre-Conference: Innovations in Neuromodulation.**
Not included in the main event CME/CPD credit.
More Information to follow

Legend:

| | | | | |
|---|---|---|---|---|
| Plenary | Breakout Session | Oral Presentations | Supported Symposium | Special Session |
| Meeting | Award Ceremony | Networking Event | Exhibit Break/Poster Viewing | |

## Main Congress

| Sunday, 22 May 2022 | |
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| 19:15 - 19:45 | INS Opening Reception in the Exhibition Area |

| Monday, 23 May 2022 | | | | |
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| | Hall 1 | Hall 2 | Hall 3 | Hall 4 |
| 08:30 - 12:00 | Opening Plenary Session | | | |
| 08:30 - 09:00 | Welcome Address | | | |
| 09:00 - 09:20 | Neuralink: Creative Vision and Technical Execution | | | |
| 09:20 - 09:45 | Modulation of Human Memory by Deep Brain Stimulation of the Entorhinal Hippocampal Circuitry | | | |
| 09:45 - 10:10 | Deep Brain Stimulation: Potential for Neuroprotection | | | |
| 10:10 - 10:30 | Spinal Cord Stimulation in Neuropathic Pain: Mechanisms of Action, New Locations, New Paradigms | | | |
| 10:30 - 10:55 | *Break, Posters & Exhibits* | | | |
| 11:00 - 11:20 | Late Breaking Research | | | |
| 11:20 - 11:40 | Late Breaking Research | | | |
| 11:40 - 12:00 | Late Breaking Research | | | |
| 12:00 -12:50 | Oral Poster Presentations Five Best Abstracts | | | |
| 12:00 - 12:10 | 1 | | | |
| 12:10 - 12:20 | 2 | | | |
| 12:20 - 12:30 | 3 | | | |
| 12:30 - 12:40 | 4 | | | |
| 12:40 - 12:50 | 5 | | | |
| 13:00 - 14:30 | *Lunch, Posters & Exhibits* | | | Lunch Symposium (not included in main event CME/CPD credit) (13.15-14:15) |

Legend:

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|---|---|---|---|---|
| Plenary | Breakout Session | Oral Presentations | Supported Symposium | Special Session |
| Meeting | Award Ceremony | Networking Event | Exhibit Break/Poster Viewing | |

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|---|---|---|---|---|
| **14:30 - 16:00** | **Neuromodulation for Painful Peripheral Neuropathies** | **Deep Brain Stimulation (DBS) for Memory and Cognition** | **Bioelectric Medicine: Novel Applications of Vagus Nerve Stimulation (VNS)** | **Genitourinary Neuromodulation: Neurostimulation for Urogenital Pain** |
| **14:30 - 14:45** | **Dorsal Root Ganglion/Spinal Cord Stimulation (Dorsal Root Ganglion/Spinal Cord Stimulation) for Peripheral Neuropathy: Evidence from Basic Science and Animal Models** | **Modifying the Progression of Alzheimer's Disease with Deep Brain Stimulation** | **Vagus Nerve Stimulation in Rheumatoid Arthritis** | **Systematic Review of Neuromodulation for Chronic Pelvic Pain** |
| **14:45 - 15:00** | **Invasive Electrical Neuromodulation for the Treatment of Painful Diabetic Neuropathy: Systematic Review and Meta-Analysis** | **Deep Brain Stimulation of the Nucleus Basalis of Meynert and Alzheimer's Disease** | **Vagus Nerve Stimulation for Headache Disorders** | **Dorsal Root Ganglion Stimulation for Urogenital Pain** |
| **15:00 - 15:15** | **Results of the SENZA-PPN Study** | **Deep Brain Stimulation of the Internal Capsule Enhances Human Cognitive Control and Prefrontal Cortex Function** | **Vagus Nerve Stimulation for COVID-19/Respiratory Disorders** | **Sacral Nerve Stimulation for Chronic Pelvic Pain** |
| **15:15 - 15:30** | **Dorsal Root Ganglion Stimulation for Peripheral Neuropathy** | **Fornix Deep Brain Stimulation in Brain Diseases** | **Vagus Nerve Stimulation for Diabetes/Obesity** | **Spinal Cord Stimulation for the Treatment of Chronic Pelvic Pain** |
| **15:30 - 15:45** | TBA | TBA | TBA | TBA |
| **15:45 - 16:00** | Discussion | Discussion | Discussion | Discussion |
| **16:00 - 16:30** | *Break, Posters & Exhibits* | | | |
| **16:30 - 18:20** | **Oral Poster Presentations** | | | |
| | | | | |
| **16:30 - 16:40** | 1 | 1 | 1 | 1 |
| **16:40 - 16:50** | 2 | 2 | 2 | 2 |
| **16:50 - 17:00** | 3 | 3 | 3 | 3 |
| **17:00 - 17:10** | 4 | 4 | 4 | 4 |
| **17:10 - 17:20** | 5 | 5 | 5 | 5 |
| **17:20 - 17:30** | 6 | 6 | 6 | 6 |
| **17:30 - 17:40** | 7 | 7 | 7 | 7 |
| **17:40 - 17:50** | 8 | 8 | 8 | 8 |
| **17:50 - 18:00** | 9 | 9 | 9 | 9 |
| **18:00 - 18:10** | 10 | 10 | 10 | 10 |
| **18:10 - 18:20** | 11 | 11 | 11 | 11 |
| **18:30 - 19:30** | Young Neuromodulators' Reception | | | |

Legend:

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|---|---|---|---|---|
| Plenary | Breakout Session | Oral Presentations | Supported Symposium | Special Session |
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| Tuesday, 24 May 2022 | | | | |
|---|---|---|---|---|
| | **Hall 1** | **Hall 2** | **Hall 3** | **Hall 4** |
| **8:30 - 9:30** | | | | Breakfast Symposium (not included in main event CME/CPD credit) |
| **09:30 - 12:30** | **Plenary Session 2** | **Workshop on Neuromodulation**<br>**(Nurses, psychologists, physiotherapists)** | | |
| 09:30 - 10:00 | **Translational Neurocardiology: Preclinical Models and Cardioneural Integrative Aspects** | | | |
| 10:00 - 10:30 | **Targeted Neurotechnology in Patients with Spinal Cord Injury** | | | |
| 10:30 - 11:00 | **Transcutaneous Spinal Cord Stimulation and Motor Rehabilitation in Spinal Cord Injury: A systematic Review** | | | |
| **11:00 - 11:25** | *Break, Posters & Exhibits* | | | |
| 11:30 - 12:00 | **Chemogenetic Neuromodulation** | | | |
| 12:00 - 12:30 | **Discussion of the New Neurostimulation Appropriateness Consensus Conference and Polyanalgesic Consensus Conference Guidelines** | | | |
| **12:30 - 13:10** | **INS General Assembly (Members only)** | | | |
| **13:10 - 14:30** | *Lunch, Posters & Exhibits* | | | Lunch Symposium (not included in main event CME/CPD credit)<br>(13:15 -14:15) |
| **14:30 -16:00** | **Does Spinal Cord Stimulation (SCS) Therapy Result in Decreased Opioid Exposure?** | **Closed Loop Deep Brain Stimulation (DBS)** | **Spinal Cord Stimulation (SCS) for Motor Recovery after Spinal Cord Injury** | **Cardiovascular Neuromodulation** |
| 14:30 - 14:45 | **Spinal Cord Stimulation Does Not Reduce Opioid Usage** | **Neurochemical and Electrophysiological Measurements for Closed Loop Deep Brain Stimulation** | **Neuromodulation of Lumbosacral Spinal Networks Enables Independent Stepping after Complete Paraplegia** | **Baroreflex Activation Therapy and the Heart** |
| 14:45 - 15:00 | **The Effect of Spinal Cord Stimulation on Pain Medicine Reduction: A Systematic Review** | **Evoked Potentials as Feedback Signals for Closed-Loop Deep Brain Stimulation** | **Recovery of Over-Ground Walking after Motor Complete Spinal Cord Injury with Spinal Cord Stimulation** | **Transvenous Neurostimulation for Central Sleep Apnoea: a Randomised Controlled Trial** |
| 15:00 - 15:15 | **Discontinuation of Opioids after Spinal Cord Stimulation is Highly Dependent on Daily Opioid Dose** | **Dynamic Network Targeting in Closed-Loop Deep Brain Stimulation** | **Neuromodulation of the Thoracic Spinal Cord to Regulate Hemodynamic after Spinal Cord Injury** | **Respiratory Rhythm, Autonomic Modulation, and the Spectrum of Emotions: The Future of Emotion Recognition and Modulation** |
| 15:15 - 15:30 | **Opioid-Sparing Effects of Spinal Cord Stimulation** | **Dual Threshold Closed Loop Deep Brain Stimulation in Parkinson's Disease** | **Spinal Cord Stimulation for Spinal Cord Injury and the ESTAND Trial** | **Pulmonary Arterial Hypertension: The Case for a Bioelectronic Treatment** |
| 15:30 - 15:45 | **Spinal Cord Stimulation Reduces Opioid Use with Better Outcomes when Opioids are Not Used** | **Future Perspectives for Target Identification and Adaptive Closed Loop Stimulation** | **Transcutaneous Spinal Stimulation for Motor Rehabilitation after Spinal Cord Injury** | **Spinal Cord Stimulation and Vagus Nerve Stimulation: Effects on primary afferent transduction of the ischemic heart** |
| 15:45 - 16:00 | Discussion | Discussion | Discussion | Discussion |
| **16:00 - 16:30** | *Break, Posters & Exhibits* | | | |
| **16:30 - 18:20** | **Oral Poster Presentations** | | | |
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| 16:30 - 16:40 | 1 | 1 | 1 | 1 |
| 16:40 - 16:50 | 2 | 2 | 2 | 2 |
| 16:50 - 17:00 | 3 | 3 | 3 | 3 |
| 17:00 - 17:10 | 4 | 4 | 4 | 4 |
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| 17:50 - 18:00 | 9 | 9 | 9 | 9 |
| 18:00-18:10 | 10 | 10 | 10 | 10 |
| 18:10-18:20 | 11 | 11 | 11 | 11 |
| **18:30 - 19:30** | International Women in Neuromodulation Reception | | | |

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| Wednesday, 25 May 2022 | | | | |
|---|---|---|---|---|
| | **Hall 1** | **Hall 2** | **Hall 3** | **Hall 4** |
| **08:30 - 09:30** | | | | Breakfast Symposium (not included in main event CME/CPD credit) |
| **09:30 - 12:00** | **Plenary Session 3** | | | |
| 09:30 - 10:00 | **Current Status of Deep Brain Stimulation for Depression** | | | |
| 10:00 - 10:30 | **Ethics of Brain–Computer Interfaces** | | | |
| 10:30 - 11:00 | **High Cervical Spinal Cord Stimulation for Parkinson's Disease** | | | |
| **11:00 - 11:25** | *Break, Posters & Exhibits* | | | |
| 11:30 - 12:00 | **Neurovascular Neuromodulation** | | | |
| **12:00 - 12:50** | **Giant of Neuromodulation Award** | | | |
| **13:00 - 14:30** | *Lunch, Posters & Exhibits* | | | Lunch Symposium (not included in main event CME/CPD credit) (13:15 -14:15) |
| **14:30 - 16:00** | **Trialing in Spinal Cord Stimulation: Predictive or Non-Productive** | **Deep Brain Stimulation for Treatment Resistant Depression** | **Neurostimulation for Chronic Mechanical Low Back Pain** | **Neuromodulation for Covid-19** |
| 14:30 - 14:45 | **The TRIAL-STIM Study** | **Translational Aspects of Deep Brain Stimulation for Depression** | **Etiology of Chronic Mechanical Low Back Pain** | **Non-Invasive Vagus Nerve Stimulation Inhibits Cytokine Storm: A Treatment for Covid-19 Respiratory Disease** |
| 14:45 - 15:00 | **Trial versus No Trial of Spinal Cord Stimulation: Cost Analysis** | **Deep Brain Stimulation for Depression: What has Gone Wrong?** | **The Burden of Chronic Low Back Pain** | **Inflammation and Related Organ Dysfunction in Covid-19: A Role for Neuromodulation** |
| 15:00 - 15:15 | **Trial versus No Trial of Spinal Cord Stimulation: Clinical Utility** | **Deep Brain Stimulation for Depression: Predictors of Response** | **Multifidis Stimulation: The ReActiv8 Trial** | **Clinical Studies of Neuromodulation in COVID-19** |
| 15:15 - 15:30 | **Trial versus No Trial of Spinal Cord Stimulation: US Considerations** | **Closed Loop brain Stimulation for Depression** | **Multifidis Stimulation: Implications for Clinical Practice** | **Neuromodulation Devices for Managing COVID-19 Sequelae** |
| 15:30 - 15:45 | TBA | **Deep Brain Stimulation for Depression: Towards a Patient-Specific Transdiagnostic Approach** | TBA | TBA |
| 15:45 - 16:00 | Discussion | Discussion | Discussion | Discussion |
| **16:00 - 16:30** | *Break, Posters & Exhibits* | | | |
| **16:30 - 18:20** | **Oral Poster Presentations** | | | |
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| Thursday, 26 May 2022 | | | | |
|---|---|---|---|---|
| | **Hall 1** | **Hall 2** | **Hall 3** | **Hall 4** |
| **08:00 - 10:00** | **Peripheral Nerve Stimulation (PNS) for Low Back Pain** | **Variable Frequency Deep Brain Stimulation (DBS) for Parkinson's Disease and Neuromodulation for Refractory Epilepsy** | **Interfacing with the Nervous System at a Cellular Scale and Biological Level; and Conflict of Interest in Neuromodulation?** | **Neurostimulation for Visceral Pain: Update** |
| **08:00 - 08:15** | **Dorsal Root Ganglion (DRG) Stimulation for Low Back Pain at T12** | **Frequency Issues in Deep Brain Stimulation for Parkinson's Disease** | **Ultramicroelectrodes Fabricated from Amorphous Silicon Carbide** | **Spinal Cord Stimulation for Visceral Pain: Current Approaches** |
| **08:15 - 08:30** | **Dorsal Root Ganglion Stimulation for Low Back Pain at L2** | **Reduction of Deep Brain Stimulation Frequency Improves Parkinson's Disease Symptoms** | **Tissue Engineered Electronic Interface (TEENI) for the Peripheral Nervous System** | **Treatment of Chronic Abdominal Pain: Safety and Efficacy from a 12-Month Prospective, Multicenter Feasibility Study** |
| **08:30 - 08:45** | **Peripheral Nerve Field Stimulation for Low Back Pain** | **Deep Brain Stimulation at Variable Frequency Improves Parkinson's Disease Outcomes** | **Engineering the Biology and Biochemistry of the Interface to Promote Reliability** | **Spinal Cord Stimulation for Visceral Pain: Future Strategies** |
| **08:45 - 09:00** | **The SubQStim Study** | **Variable Frequency Deep Brain Stimulation for Axial Features in Parkinson's Disease** | **Applications of Graphene and Carbon Nanotube Structures to Control Neural Signaling** | **Vagus Nerve Stimulation for Gastrointestinal Disorders/Crohn's Disease** |
| **09:00 - 09:15** | **Primary Dorsal Ramus Stim for Low Back Pain** | **Personalized Vagus Nerve Stimulation for Drug Resistant Epilepsy** | **Conflict of Interest in Neuromodulation** | **Autonomic Neuromodulation for Metabolic Disorders** |
| **09:15 - 09:30** | TBA | **Thalamic Deep Brain Stimulation for Epilepsy** | TBA | **Methods and Mechanisms of Gastric Electrical Stimulation for Nausea and Vomiting** |
| **09:30 - 09:45** | TBA | **Hippocampal Deep Brain Stimulation for Epilepsy** | TBA | TBA |
| **09:45 - 10:00** | Discussion | Discussion | Discussion | Discussion |
| **10:00 - 10:25** | *Break, Posters & Exhibits* | | | |
| **10:30 - 11:20** | **Oral Poster Presentations** | | | |
| | | | | |
| **10:30 - 10:40** | 1 | 1 | 1 | 1 |
| **10:40 - 10: 50** | 2 | 2 | 2 | 2 |
| **10:50 - 11:00** | 3 | 3 | 3 | 3 |
| **11:00 - 11:10** | 4 | 4 | 4 | 4 |
| **11:10 - 11:20** | 5 | 5 | 5 | 5 |
| **11:30 - 13:40** | **Closing Plenary Session** | | | |
| | | | | |
| **11:30 - 12:00** | **Vagus Nerve as Modulator of the Brain-Gut Axis in Psychiatric and Inflammatory Disorders** | | | |
| **12:00 - 12:30** | **Deep Brain Stimulation for Movement Disorders: From Experimental Surgery to Evidence-Based Therapy** | | | |
| **12:30 - 13:00** | **Neuroimaging Based Pain Biomarkers** | | | |
| **13:00 - 13:30** | **Women in Neuromodulation: The WIN Survey** | | | |
| **13:30 - 13:40** | **Closing Comments** | | | |
| **13:40** | **Congress Adjourns** | | | |