



**Location:**

Estrel Hotel Berlin  
 Sonnenallee 225, 12057 Berlin, Germany  
 Tel: + 49-30-68310

**Poster Presentation (Room ECC B + C, Registration Hall) Schedule:**

10 June: 07.30 – 08.00, 10.00 – 10.25, 13.30 – 14.30, 16.00 – 16.30  
 11 June: 07.30 – 08.00, 10.00 – 10.25, 13.30 – 14.30, 16.00 – 16.30  
 12 June: 07.30 – 08.00, 10.00 – 10.25, 13.30 – 14.30, 16.00 – 16.30

**Hours of Registration:**

Open – Friday, 7 June, 1700-1900  
 8 June – 12 June, 0730 – 1800  
 13 June – 0730 – 1430

**Exhibition Hall (Room ECC B + C) Schedule:**

Opening – Welcome Reception: Sunday, 9 June, 1900-2030  
 Monday, 10 June, and Tuesday, 11 June, 0730 - 1800  
 Wednesday, 12 June, 0730 - 1430

**International Neuromodulation Society 11th World Congress**

**Estrel Hotel in Berlin, Germany, 8-13 June 2013**

**Pre-Conference Agenda**

**Saturday, 8 June 2013: Solving Problems at the Neural Interface – Room ECC 1**

[www.neuromodulation.com/inscongress](http://www.neuromodulation.com/inscongress)

Saturday, 8 June 2013	
0800-0900	BUFFET BREAKFAST
0900-0915	<b>Welcome and Opening Remarks</b> - Dominique M. Durand, PhD and Elliot Krames, MD
0915-0945	<b>Interfacing with the Nervous System</b> - Thomas Stieglitz, PhD
0945-1015	<b>Sensing and Stimulating</b> - Daryl Kipke, PhD
1015-1045	<b>Tissue Reaction</b> - Ravi Bellamkonda, PhD
1045-1100	BREAK
1100-1130	<b>Advances in SCS Technology: Recording from SCS Electrodes and Closed Loop Stimulation</b> - John Parker
1130-1200	<b>Epilepsy</b> - Andres Lozano, BSc, MD, BMedSci, FRCSC, PhD
1200-1230	Q & A
1230-1400	<b>LUNCH and Keynote Presentation: Understanding the Future of Brain Neuromodulation</b> - Alim Benabid, MD, PhD (1230–1300)

1400-1430	<b>Advances in Visual Prostheses</b> - Rolf Eckmiller, PhD
1430-1500	<b>Advances in Electrical Nerve Block</b> - Niloy Bhadra, MD
1500-1530	<b>Advances in Interfacing with the Peripheral Nervous System</b> - Dominique Durand, PhD
1530-1600	<b>Causing a Sensation: Development of a Proprioceptive Neural Interface</b> - Lee Miller, MD
1600-1615	BREAK
1615-1645	<b>Neural Tissue Regeneration</b> - Ravi Bellamkonda, PhD
1645-1715	<b>Potential of Optical Stimulation</b> - Jaimie Henderson, MD
1715-1745	Q & A

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**Sunday, 9 June 2013: Innovations in Neuromodulation – Room ECC 1**

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<b>Sunday, 9 June 2013</b>	
0700-0745	BUFFET BREAKFAST
0745-0800	<b>Welcome and Opening Remarks</b> - INS Past President Elliot Krames, MD and INS President Simon Thomson, MBBS, FRCA
0800-0830	<b>Neuromodulation: Analysis of the Industry &amp; Global Market</b> - Eric Grigsby, MD, CEO, Neurovations; Medical Director, Napa Pain Clinic
<b>0830-0930 Emerging Company Presentations: Enabling Therapy Delivery</b> <b>Highlights the critical role of interfacing with neural tissue in effective neuromodulation and the innovation focused in this critical area.</b> Moderator: Elliot Krames, MD	
0830-0842	<b>Aleva Neurotherapeutics SA</b> - Jean-Pierre Rosat, PhD, Chief Executive Officer
0842-0854	<b>Biotectix, LLC</b> - Jeffrey L. Hendricks, PhD, Director of Engineering, Cofounder
0854-0906	<b>NeuroNexus</b> - Rio Vetter, PhD, Director of Research, Development
0906-0918	<b>WISE S.r.l.</b> - Luca Ravagnan, PhD, Chief Executive Officer
0918-0930	Q & A

0930-1000	<b>Formalizing Ideas &amp; Protecting Intellectual Property</b> - Danny Sachs, MD, Founder of Respicardia, Mainstay, Kspine, and Amphora
1000-1030	NETWORKING BREAK
<b>1030-1120 Emerging Company Presentations: Innovation Platforms</b> <b>Highlights the development of foundational platforms that will enable others to develop novel therapeutic solutions through leverage of a flexible platform.</b> Moderator: James Cavuoto	
1030-1042	<b>Algotim, LLC</b> - Scott Drees, President and Chief Executive Officer
1042-1054	<b>Stimwave Technologies, Inc.</b> - Laura Tyler Perryman, Chief Executive Officer
1054-1106	<b>Sapiens Steering Brain Stimulation BV</b> - Sjaak Deckers, PhD, Chief Executive Officer
1106-1120	Q & A
1120-1200	<b>How to Raise Capital for a Startup Company</b> - Rami Elghandour, Chief Business Officer, Nevro Corp.
1200-1330	<b>LUNCH &amp; Keynote Presentation</b> Chris Chavez, Chairman, President and CEO, TriVascular, Inc. and former CEO and Director, Advanced Neuromodulation Systems, Inc.
<b>1330-1430 Emerging Company Presentations: Externals and Planning</b> <b>Highlights the role of external instrumentation in the delivery of neuromodulation. This group includes companies providing systems that stimulate the various targets throughout the nervous system, as well as enable more effective chronic stimulation through image-guided planning and therapy.</b> Moderator: Elliot Krames, MD	
1330-1342	<b>NeuroSigma, Inc.</b> - Leon Ekchian, PhD, President and Chief Executive Officer
1342-1354	<b>Neurotargeting LLC</b> - Pierre-Francois D'Haese, PhD, Chief Executive Officer
1354-1406	<b>Nexstim Oy</b> - Janne Huhtala – Chief Executive Officer
1406-1430	Q & A
<b>1430-1530 Regulatory Pathway: FDA Approval and CE Mark Designation</b> Moderator: Simon Thomson, MBBS, FRCA	
1430-1455	<b>Regulatory Approval Requirements - US and EC - Recent Trends</b> - Winifred Wu, President, Strategic Regulatory Partners, LLC
1455-1520	<b>Evidence for Payers</b> - Rod Taylor, PhD, Health Services Research Professor, Exeter University
1520-1530	Q & A

<b>1530-1630 Emerging Company Panel Presentations: New Therapy Development</b> Highlights those who focus on creating new therapeutic solutions through neuromodulation. Moderator: Elliot Krames, MD	
<b>1530-1542</b>	<b>EndoStim</b> - Shai Policker, Senior Vice President of Operations
<b>1542-1554</b>	<b>Functional Neuromodulation</b> - Daniel J. O'Connell, Chief Executive Officer
<b>1554-1606</b>	<b>Mainstay Medical</b> - Peter Crosby, Chief Executive Officer
<b>1606-1618</b>	<b>Neuros Medical, Inc.</b> - Jon J. Snyder, President and CEO
<b>1618-1630</b>	<b>Q &amp; A</b>
<b>1630-1700</b>	NETWORKING BREAK
<b>1700-1750 What Big Companies Look for When They Buy Small Companies</b> Moderator: Don Deyo, CEO, MedTech Execs and former Vice President of R&D, Medtronic Neuromodulation	
<b>1700-1710</b>	<b>Codman Neuro, division of Johnson &amp; Johnson</b> - Peter Stebbins, Vice President, Business Development
<b>1710-1720</b>	<b>Medtronic</b> - Jeff Erb, Sr. Director of Business Development, Alliances and IP Portfolio Management
<b>1720-1730</b>	<b>St. Jude Medical</b> - Brad Maruca, Vice President, Product Marketing and Enterprise Connectivity
<b>1730-1740</b>	<b>Sorin Group</b> - Catherine Picard, Vice President, New Ventures
<b>1740-1750</b>	<b>Q &amp; A</b>
<b>1750-1800</b>	Closing Comments

*Please note: CME Credit is not available for this day's session.*

*All delegates are welcome to attend the INS Congress Opening Reception, which will follow at 19.00 - 20.30.*

### **Objectives**

1. Learn about the process by which innovations occur, become funded and reach the marketplace.
2. Describe the process of establishing intellectual property.
3. Find out about current and future investment strategies and challenges in the device market --both in Europe and the U.S.
4. Define the regulatory process by which the CE Mark and FDA approval are obtained in Europe and the U.S., respectively.
5. Discover emerging companies and the science behind their innovative therapies.
6. Network with the leaders in innovation, investment, basic science and clinical practice in the neuromodulation space.

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**Congress Agenda**

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<b>Monday, 10 June 2013</b>	
<b>0730-0800</b>	<b>BUFFET BREAKFAST &amp; POSTERS</b>
<b>Morning Plenary Lectures - Room ECC A - Moderators: Fabian Piedimonte, MD and Ali Rezai, MD</b>	
<b>0800-0810</b>	<b>Welcome Address</b> Simon Thomson, MBBS, FRCA, INS President and Congress Chair
<b>0810-0830</b>	<b>Keynote Address: The Age of the Brain - Our Biggest Societal Challenge and How INS Can Help Change Forever the Way we All Think about our Brains</b> Alistair Benbow, MBBS, MRCPI, FFPM
<b>0830-0900</b>	<b>Controversies in Neuromodulation: Mechanism Based Medicine or Evidenced Based Medicine</b> Frank Huygen, MD, PhD and Maarten Van Kleef, MD, PhD
<b>0900-0930</b>	<b>Emerging Brain Targets</b> Andres Lozano, BSc, MD, BMedSci, FRCSC, PhD
<b>0930-1000</b>	<b>Chemical Brain Neuromodulation: Targeted Brain Drug Delivery</b> Russell Lonser, MD, PhD
<b>1000-1025</b>	<b>BREAK, POSTERS, &amp; EXHIBITS</b>
<b>1030-1100</b>	<b>DBS of the Entorhinal Cortex for Epilepsy, Memory and Cognition</b> Itzhak Fried, MD, PhD
<b>1100-1130</b>	<b>State of the Art for Future Neuromodulation Trial Design</b> Richard North, MD
<b>1130-1220 Free Oral Poster Presentations</b>	
<b>1130-1140</b>	<b>Improved Intraoperative Therapeutic Window with Directional DBS Compared to Omnidirectional DBS Using a Novel Lead Design</b> Claudio Pollo, MD
<b>1140-1150</b>	<b>An Approach on the Quantification of Uncertainties in the MRI-defined Subthalamic Nucleus</b> Andreas Husch, BS
<b>1150-1200</b>	<b>Implementation of a New Lead and Stimulation Device For Spinal Cord Stimulation with MRI-Safety-First Implantation Worldwide and Initial Clinical Experience</b> Dirk Rasche, MD
<b>1200-1210</b>	<b>Occipital Nerve Stimulation in Fibromyalgia: A 6 months Follow-up Study on a Group of 25 Patients</b> Mark Plazier, MD
<b>1210-1220</b>	<b>Thoracic Spinal Cord Stimulation Applied Chronically Reduces Mortality and Preserves Vagal Responsiveness in a Canine Heart Failure Model</b> Jeffrey Ardell, MD
<b>1230-1330</b>	<b>LUNCH</b>
<b>1330-1430</b>	<b>POSTERS &amp; EXHIBITS</b>

*\*Breakfasts, breaks and lunches will be provided either in the Exhibition Hall, Registration area, or by hosted symposium.*

Monday, 10 June 2013 - Afternoon Concurrent Sessions			
	Room ECC A State of the Art and Science Moderator: Paul Verrills, MBBS, FAFMM	Room ECC 1 Neuromodulation for Movement Disorders Moderator: Stefanos Korfiatis, MD, PHD	Room ECC 2 + 3 Neuromodulation for Neurocardiovascular Disorders Moderator: Mike DeJongste, MD, PhD
1430-1445	<b>The Cost Effectiveness of Healthcare - Analysis of the Methodology</b> Rod Taylor, PhD	<b>Understanding the Mechanisms of DBS</b> Alim Benabid, MD, PhD	<b>Ischemic Heart Disease: Mechanisms</b> Robert Foreman, PhD
1445-1500	<b>State of the Art for Publications in the Field of Neuromodulation</b> Robert Levy, MD, PhD		<b>Ischemic Heart Disease: Clinical Evidence</b> Michael DeJongste, MD, PhD
1500-1515	<b>Visceral Pain and Newer Indications for Spinal Cord Stimulation</b> Leonardo Kapural, MD	<b>DBS: Challenges in Patient Selection</b> Elena Moro, MD, PhD	<b>Randomized Control Studies Neurostimulation for Heart Failure</b> John Lopshire, MD
1515-1530	<b>The Role of Glia in Neuromodulation</b> Mark Hutchinson, BSc, PhD (Med)	<b>DBS for Parkinson's Disease</b> Jin Woo Chang, MD, PhD	<b>Neurostimulation for Heart Failure: Clinical Evidence</b> Heinz Theres, MD
1530-1545	<b>PNFS - Science and State of the Art</b> Giancarlo Barolat, MD	<b>DBS for Tourette's Syndrome</b> Veerle Visser-Vandewalle, MD, PhD	<b>Neurostimulation for Cardiac Rhythm Disorders: Mechanisms</b> Jeff Ardell, PhD
1545-1600	<b>Why and How Do We Need MRI Safer Devices for Neuromodulation</b> Gregor Schaefer, Dipl. Ing.	<b>DBS for Epilepsy</b> Jan Vesper, MD, PhD	<b>Neurostimulation for Cardiac Rhythm Disorders: Clinical Evidence</b> Richard Cornelussen, PhD
1600-1630	BREAK & POSTERS		
1630-1800	<b>Free Oral Poster Presentations State of the Art and Science</b> Moderator: David Abejón, MD, PhD	<b>Free Oral Poster Presentations Brain Neuromodulation</b> Moderator: Damianos Sakas, MD, PhD	<b>Free Oral Poster Presentations Neurocardiovascular Disorders and Pain</b> Moderator: Michael DeJongste, MD, PhD
1630-1640	<b>Advancements In Full Body MR Conditional Neurostimulation Systems</b> Steve Manker, BS	<b>Correlating Parkinson's Disease Motor Symptoms With 3-Dimensional [18F]FP-CIT PET</b> Young Seok Park, MD, PhD	<b>A Cardiac-Related Component Of The Vagus Nerve Activity Is Correlated In Amplitude To The Central Arterial Blood Pressure</b> Thomas Nielsen, PhD
1640-1650	<b>MRI Safe Deep Brain And Spinal Cord Stimulation Systems: Studies Of The Maximum Safe Lead Tip Temperature</b> Robert Coffey, MD	<b>Matrix Embedded Ultra-Thin Microelectrodes For Multisite Deep Brain Stimulation And Recording</b> Jens Schouenborg, PhD	<b>Non-Invasive Vagus Nerve Stimulation Enhances Parasympathetic Influence On Autonomic Output By Reducing Sympathetic Nerve Activity</b> Jennifer Clancy, BSc, MSc
1650-1700	<b>Analysis And In-Vivo Results Of MRI Radiofrequency Heating Due To Neuromodulation Systems</b> Heather Orser, PhD	<b>Targeting Globus Pallidus Internus For The Neurosurgical Treatment Of Dystonia: 15 Years Follow-Up</b> Fabian Piedimonte, MD	<b>Development And Settings Of A New Implantable Neuromodulation Modality For Chronic Refractory Angina Pectoris: Subcutaneous Electrical Nerve Stimulation</b> Koen De Decker, BSci

Monday, 10 June 2013 - Afternoon Concurrent Sessions - *continued*

1630-1800	Free Oral Poster Presentations State of the Art and Science	Free Oral Poster Presentations Brain Neuromodulation	Free Oral Poster Presentations Neurocardiovascular Disorders and Pain
1700-1710	First Experiences With A Full-Body Magnetic Resonance Imaging (MRI) Compatible Neurostimulation System Jose De Andres, PhD, FIPP, EDRA	Preliminary Report Of MR Guided Focused Ultrasound Surgery For The Patients With Essential Tremor: The Result From ET001k Feasibility Study Won Hee Le, MD	Long-Term Clinical Outcome After Spinal Cord Stimulation For Refractory Stable Angina Pectoris In Patients With Chronic Pacemaker And ICD-Treatment Siegfried Eckert, MD
1710-1720	Adaptive SCS Stimulation Adjustment For Varying DCSF Thickness Along Multiple Vertebral Levels: A Computational Modeling Study Dongchul Lee, PhD	Deep Brain Stimulation: Re- Adjustment Of Atlas-Based Targeting In Patients With Essential Tremor By Identification Of The Dentato-Rubro-Thalamic Tract Juergen Schlaier, PhD	Spinal Cord Stimulation In Patients With Painful Diabetic Neuropathy Cecile De Vos, MSc
1720-1730	Real-Time Feature Extraction And Spatiotemporal Representation Of Neurophysiologic Data Chengyuan Wu, MD	Patient-Specific Modeling Of The Subthalamic Nucleus For Deep Brain Stimulation Targeting Florian Bernard, PhD	The Options Study-Clinical Outcomes Study Using A New Implantable Neurostimulation System For Chronic Intractable Pain: Initial Trial Experience Paul Verrills, MBBS, FAFMM
1730-1740	Modulation Of Sensory Neurons Of The Pancreas By SCS To Control Beta Cell Stress And Insulin Production In Type I Diabetic Animals Laura Perryman, MS, MBA	Cenesthopathy-Like Symptom After STN-DBS For Parkinson's Disease Chikashi Fukaya, MD, PhD	Somatosympathetic Reflexes And Stimulation Of The Dorsal Root Ganglion (DRG) In The Treatment Of Chronic Pain Jean-Pierre Van Buyten, MD
1710-1750	Micro-Magnetic Stimulation Of The Nervous System John Gale, PhD	SCS Modulates Brain Functions And Neurobiology Maarten Moens, MD	Sonology Of Programmable Intrathecal Pumps Michael Saulino, MD, PhD
1750-1800	Neural Recordings For Feedback Control Of Spinal Cord Stimulation: Reduction Of Paraesthesia Variability Robert Gorman, MD	Discussion	Salvaging Failed Conventional Spinal Cord Stimulation Implants With High Frequency Spinal Cord System Paul Verrills, MBBS, FAFMM
1800-1810	A window to the brain during Occipital nerve stimulation in Fibromyalgia patients: a PET scan study Mark Plazier, MD		

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<b>Tuesday, 11 June 2013</b>	
<b>0730-0800</b>	BREAKFAST & POSTERS
<b>Morning Plenary Lectures - Room ECC A - The Cutting Edge of Neurostimulation for Pain</b> Moderators: Simon Thomson, MBBS, FRCA; Marc Russo, MBBS, DA, FANZCA; and Jean Pierre Van Buyten, MD	
<b>0800 - 0824</b>	<b>Advances in SCS Technology: Implant Tools and Techniques</b> Timothy Deer, MD (12 min) and Stefan Schu, MD (12 min)
<b>0825 - 0850</b>	<b>Advances in SCS Technology: Novel Waveforms and Frequencies</b> Dirk DeRidder, MD, PhD (12 min) and Adnan Alkaisy, MB ChB, FRCA (12 min)
<b>0850 - 0910</b>	<b>Advances in SCS Technology: Recording from SCS Electrodes and Closed Loop Stimulation</b> John Parker
<b>0910 - 0934</b>	<b>Advances in SCS Technology: Novel Intraspinal Targets</b> Robert Levy, MD, PhD (12 min) and Liong Liem, MD (12 min)
<b>0934 - 1000</b>	<b>Advances in SCS Technology: Activity Sensors and Feedback Systems</b> Eric Buchser, MD (12 min) and David Carraway, MD, PhD (12 min)
<b>1000 - 1025</b>	BREAK, POSTERS, & EXHIBITS
<b>1030 - 1130</b>	<b>Panel Discussion on Current and Future Choices: Interesting Cases. What would you choose today? What would you choose in 2015?</b> Moderators: Drs. Thomson, Russo, Van Buyten, Levy, Caraway, Deer, Liem, DeRidder, and Schu
<b>1130 - 1200 Free Oral Poster Presentations</b>	
<b>1130 - 1140</b>	<b>Dorsal Column and Peripheral Nerve Stimulation Induces an Intensity-Dependent Inhibition of Wide-Dynamic-Range Neuronal Activity in a Rat Model of Neuropathic Pain</b> Paul Wacnik, PhD
<b>1140 - 1150</b>	<b>Can CSF Pressure Signals Distinguish Catheter Complications From Normal Catheter Function In Subjects Who Experience Loss Of Intrathecal Baclofen Therapy?</b> Michael Saulino, MD, PhD
<b>1150 - 1200</b>	<b>Analgesic Efficacy Of High Frequency Spinal Cord Stimulation: A Randomised Double-Blind Placebo-Controlled Study</b> Christophe Perruchoud, MD
<b>1200 - 1230</b>	<b>INS GENERAL ASSEMBLY OF MEMBERS</b>
<b>1230 - 1330</b>	LUNCH
<b>1330 - 1430</b>	POSTERS & EXHIBITS

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Tuesday, 11 June 2013 - Afternoon Concurrent Sessions			
	<b>Room ECC A</b> <b>Intrathecal Drug Delivery for Pain and Spasticity: 2013</b> Moderator: Ivano Dones, MD	<b>Room ECC 1</b> <b>Neuromodulation for Psychiatric Disorders</b> Moderator: Michiel Staal, MD, PhD	<b>Room ECC 2 + 3</b> <b>Neuromodulation for Pelvic Organ Motility Disorders</b> Moderators: Stefan de Wachter, MD, PhD and Magdy Hassouna, MD, PhD
1430 - 1445	<b>ITDD in FBSS: Patient Selection, Prediction of Outcome from Screening Trials and Safety Issues</b> Sam Eldabe, MBBS, FRCA	<b>Deep Brain Stimulation for Obsessive Compulsive Disorder</b> Loes Gabriëls, MD, PhD, MScEng	<b>SNS: How Can One Therapy Work for Multiple Organ Dysfunction?</b> Nico Rijkhoff, PhD
1445 - 1500	<b>Polyanalgesic Consensus Conference 2012: The Main Recommendations</b> Tim Deer, MD	<b>Deep Brain Stimulation for Depression</b> Robert Gross, MD, PhD	<b>Neuromodulation for Bladder Pain Syndrome</b> Adnan Alkaisy, MB ChB, FRCA
1500 - 1515	<b>Intrathecal Drug Delivery Systems: The Science and State of the Art</b> Joshua Prager, MD, MS	<b>Deep Brain Stimulation for Aggression</b> Giovanni Broggi, MD	<b>Growing Access for NM in Fecal Incontinence and Constipation: What Do We Need?</b> Charles Knowles, MBBChir, PhD
1515 - 1530	<b>Cerebral Spinal Fluid Dynamics and Implications</b> Eric Buchser, MD	<b>Deep Brain Stimulation for Eating Disorders</b> Bomin Sun, MD	<b>Neuromodulation for Neurogenic Lower Urinary Tract and Bowel Dysfunction</b> Thomas Kessler, MD
1530 - 1545	<b>Intrathecal Baclofen for Spasticity</b> Michael Saulino, MD, PhD	<b>Deep Brain Stimulation for Addictive Disorders</b> Jens Kuhn, MD	<b>Overview of Less Invasive Neuromodulation for OAB and Fecal Incontinence</b> Stefan de Wachter, MD, PhD
1545 - 1600	<b>Discussion</b>	<b>Ethical Issues in Deep Brain Stimulation for Psychiatric Disorders</b> Thomas Schlaepfer, MD	<b>Neuromodulation for Sexual Dysfunction</b> Magdy Hassouna, MD, PhD
1600 - 1630	BREAK, POSTERS, & EXHIBITS		
	<b>Free Oral Poster Presentations Neuromodulation for Pain</b> Moderator: Ivano Dones, MD	<b>Free Oral Poster Presentations Brain Neuromodulation</b> Moderator: Alexandre Francisco, MD	<b>Free Oral Poster Presentations Pelvic Organ Motility Disorders</b> Moderators: Stefan de Wachter, MD, PhD and Magdy Hassouna, MD, PhD
1630 - 1640	<b>Effect Of Intrathecal Intermittent Boluses And Morphine Concentration On The Incidence Of Inflammatory Mass In A Canine Model</b> Linda Page, PharmD	<b>TMS Mapping To Assess Cortical Reorganisation In Chronic Pain</b> Turo Nurmikko, MD, PhD	<b>Transabdominal Electrical Stimulation Causes Changes In Oral-Rectal Transit And Bowel Contractility In Piglets</b> Andre Tan, BSc, BEng
1640 - 1650	<b>Low Bone Mineral Density Levels As A Secondary Effect Of Intrathecal Drug Delivery For Chronic Non-Cancer Pain</b> Rui Duarte, PhD	<b>Surgical Treatment Strategy For Intractable Pain Due To The Stroke Application Of Neuromodulation Therapy</b> Hidehiro Hirabayashi, PhD	<b>Home-Based Transabdominal Electrical Stimulation Slowly Improves Treatment-Resistant Chronic Constipation In Children</b> Bridget Southwell, PhD

Tuesday, 11 June 2013 - Afternoon Concurrent Sessions - *continued*

	Free Oral Poster Presentations Neuromodulation for Pain	Free Oral Poster Presentations Brain Neuromodulation	Free Oral Poster Presentations Pelvic Organ Motility Disorders
1650 - 1700	<b>Dose Escalation: Simple Continuous Infusion vs. Flexible Bolus In An Intrathecal Morphine Pump</b> Jennifer Breeel, RN, MPA	<b>Tourette's Syndrome Treatment By Chronic Deep Brain Stimulation Of The Globus Pallidus Externus</b> Fabian Piedimonte, MD	<b>Sacral Nerve Stimulation In The Treatment Of Fecal Incontinence: The Experience Of A Pelvic Floor Center</b> Roberto Paolo Iachetta, MD
1700 - 1710	<b>Human Factors Research To Improve Programming And Variable Drug Dosing For An Intrathecal Drug Delivery System</b> Sarah Alme, BSE	<b>GPI-Deep Brain Stimulation In Tourette's Syndrome Long-Term Functional Outcome</b> Jan Mehrkens, MD	<b>Sacral Neuromodulation Therapy Patient Satisfaction, Factors Affecting Satisfaction: Single Center Survey</b> Mai Banakhar, MD
1710 - 1720	<b>High-Frequency Spinal Cord Stimulation For The Treatment Of Predominant Back Pain Patients: 24-Month Results</b> Jean-Pierre Van Buyten, MD	<b>A Randomized Blinded Trial Of Nucleus Accumbens Ablation To Treat Opiate Dependence In Humans: Location Correlates With Outcome</b> Xuelian Wang, PhD	<b>Effect Of Sacral Nerve Stimulation On Visceral Sensitivity By Rat</b> Erwann Le Long, MD
1720 - 1730	<b>Effect Of High-Frequency Alternating Current On Spinal Afferent Nociceptive Transmission: An Animal Study And Discussion On The Proposed Mechanisms Of Action</b> Jason Cuellar, MD, PhD	<b>Deep Brain Stimulation For Refractory Cocaine Dependence</b> Alexandre Campos, MD	<b>Percutaneous Implanted Paddle Lead For Spinal Cord Stimulation: Technique And 3-Year Follow Up</b> Gregor Bara, MD
1730 - 1740	<b>Pilot Study On High-Frequency Nerve Block For Amputation Pain: Initial Results</b> Amol Soin, MD	<b>Glutamate And GABA Imbalance Promotes Neuronal Apoptosis In Hippocampus But Not In Prefrontal Cortex In A Rat Model Of Post-Traumatic Stress Disorder</b> Jie Gao, MD	<b>Infection Rates Of Percutaneously Implanted Leads For Spinal Cord Stimulation After A Trial Phase: 3 Year Follow Up</b> Gregor Bara, MD
1740 - 1750	<b>Effects Of Spinal Cord Stimulation Of The Dorsal Root Ganglion In The Treatment Of Chronic, Intractable Pain: Long-Term Results From Prospective Clinical Trials</b> Liong Liem, MD	<b>The Role Of Globus Pallidus Internus As A Reasonable Target For The Treatment Of Uncontrollable Aggressiveness</b> Fabian Piedimonte, MD	<b>Low Prevalence Of MRI-Related Explants In Spinal Cord Stimulation Patients</b> Nitzan Mekel-Bobrov
1750 - 1800	<b>Lack Of Body Positional Effects On Paresthesias When Stimulating The Dorsal Root Ganglion In The Treatment Of Chronic Pain</b> Jeff Kramer, PhD	<b>Rage And Violence: Mechanism And Modulation</b> Donald Richardson, MD, FAANS	<b>Low Prevalence Of MRI-Related Explants In Spinal Cord Stimulation Patients</b> Nitzan Mekel-Bobrov, PhD
1800 - 1810	<b>Spinal Cord Stimulation For Chronic Pain: Outcomes From A Multicenter Data Collection</b> Ivano Dones, MD		

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<b>Wednesday, 12 June 2013</b>	
<b>0730 - 0800</b>	BREAKFAST & POSTERS
<b>Morning Plenary Lectures - Room ECC A - Moderators: Michael Saulino, MD, PhD and Konstantin Slavin, MD</b>	
<b>0800 - 0830</b>	<b>Neuromodulation for Medically Refractory Headache</b> Peter Goadsby, MBBS
<b>0830 - 0900</b>	<b>Neuroimaging on the Future Treatment of Pain and Headache</b> Sean Mackey, MD, PhD
<b>0900 - 0930</b>	<b>SCS in Spinal Cord Injury and Rehabilitation: An Overview</b> Vivian Mushahwar, PhD
<b>0930 - 1000</b>	<b>Controversies in Neuromodulation - Motor Cortex Stimulation: Placebo or Panacea?</b> Andre Machado, MD, PhD: Placebo; and Robert Levy, MD, PhD: Panacea
<b>1000 - 1025</b>	BREAK, POSTERS, & EXHIBITS
<b>1030 - 1100</b>	<b>Controversies in Neuromodulation - Trialing of Neuromodulation Devices: Predictor of Outcome or Poppycock?</b> Sam Eldabe, MBBS, FRCA: In favor of trials; and Brian Simpson, MA, MD, FRCS: A case against trials
<b>1100 - 1130</b>	<b>Brain Machine Interface</b> Jaimie Henderson, MD
<b>1130 - 1200 Free Oral Poster Presentations</b>	
<b>1130 - 1140</b>	<b>Single Transcranial Magnetic Stimulation In Migraine: Investigating Its Mechanism Of Action In Migraine Models</b> Anna Andreou, PhD
<b>1140 - 1150</b>	<b>Intramuscular Peripheral Nerve Stimulation Compared to Usual Care for Hemiplegic Shoulder Pain: A Randomized Controlled Trial</b> Richard Wilson
<b>1150 - 1200</b>	<b>Bedside Estimation of Respiratory Function During Intrathecal Baclofen Review Assessments Can Help Safe Dose Adjustments</b> Natalie Gray
<b>1200 - 1210</b>	<b>The Appropriate Use of Neurostimulation for the Treatment of Chronic Pain</b> Tim Deer, MD and Simon Thomson, MBBS, FRCA
<b>1210 - 1230</b>	<b>Giant of Neuromodulation Award Presentation to Dr. Elliot Krames</b> Drs. Simon Thomson, Robert Levy and Giancarlo Barolat
<b>1230 - 1330</b>	LUNCH
<b>1330 - 1430</b>	POSTERS & EXHIBITS

*\*Breakfasts, breaks and lunches will be provided either in the Exhibition Hall, Registration area, or by hosted symposium.*

Wednesday, 12 June 2013 - Afternoon Concurrent Sessions				
	<b>Room ECC A</b> <b>Guidelines and Outcomes for Neuromodulation</b> Moderator: Christophe Perruchoud, MD	<b>Room ECC 1</b> <b>Neuromodulation for Epilepsy</b> Moderator: Guoming Luan, MD, PhD	<b>Room ECC 4</b> <b>Rehabilitation, Spinal Cord Injury and Functional Electrical Stimulation</b> Moderator: Julian Taylor Green, PhD	<b>Room ECC 2 + 3</b> <b>Neuromodulation for Headache</b> Moderator: Peter Goadsby, MBBS
1430 - 1445	<b>National Audit, Registries and Databases</b> Simon Thomson, MBBS, FRCA, FIPP	<b>Vagus Nerve Stimulation for Epilepsy</b> Arthur Cukiert MD, PhD	<b>FES Therapy for Restoration of Voluntary Grasping Functions Following Spinal Cord Injury: Randomized Control Trial</b> Milos Popovic, PhD	<b>Occipital Nerve and Supraorbital Nerve Stimulation in Migraine and Cluster Headache</b> Jean Schoenen, MD, PhD
1445 - 1500	<b>S.A.F.E. for Neuromodulation</b> Elliot Krames, MD	<b>Responsive Stimulation for Epilepsy</b> Robert Gross, MD, PhD	<b>Repetitive Transcranial Magnetic Stimulation for the Treatment of Motor and Gait Function in Spinal Cord Injury</b> Hatice Kumru, MD	<b>Sphenopalatine Ganglion Stimulation in Cluster Headache</b> Rigmor Jensen, MD, DrMedSci
1500 - 1515	<b>Functional Improvement Measures in Spinal Cord Stimulation</b> Christophe Perruchoud, MD	<b>Thalamic Deep Brain Stimulation for Epilepsy</b> Ashwini Sharan, MD	<b>Peripheral Electrical Stimulation as a Means for Achieving Recovery of Function</b> Dejan Popovic, Dr.techn, PhD	<b>Deep Brain Stimulation in Cluster Headache</b> Massimo Leone, MD
1515 - 1530	<b>Improving Clinical and Cost Effectiveness: What's Important?</b> Richard North, MD	<b>Deep Brain Stimulation of the Entorhinal Cortex</b> Itzhak Fried, MD, PhD	<b>Combined Application of Neurorobotics and Neuroprosthetics in Rehabilitation of Spinal Cord Injury</b> José L. Pons, PhD	<b>Peripheral Nerve Stimulation in Facial Pain</b> Konstantin Slavin, MD
1530 - 1545	<b>Intrathecal Drug Delivery Guidelines from Germany</b> Werner Braunsdorf, MD	<b>Discussion</b>	<b>Neuromodulation of Spinal Cord Injury Symptoms with Novel Neurotrophic Factors</b> Julian Taylor Green, PhD	<b>Nucleus Caudalis Stimulation for Facial Pain</b> Robert Levy, MD, PhD
1545 - 1600	<b>Discussion</b>		<b>Discussion</b>	<b>Discussion</b>
1600 - 1630	<b>BREAK, POSTERS, &amp; EXHIBITS</b>			

Wednesday, 12 June 2013 - Afternoon Concurrent Sessions - *continued*

	Free Oral Poster Presentations Neuromodulation for Pain Moderator: Jan Holsheimer, PhD	Free Oral Poster Presentations Brain Neuromodulation Moderator: Juan Carlos Andreani, MD	Free Oral Poster Presentations Rehabilitation, Spinal Cord Injury, and FES Moderator: Julian Taylor Green, PhD	Free Oral Poster Presentations Headache Moderator: Wojciech Maksymowicz, MD, PhD
1630 - 1640	With Rising Costs, Will Spinal Cord Stimulation Remain Cost-Effective In 2020? Krishna Kumar, MBBS	Hippocampal Deep Brain Stimulation (Hip-DBS) In Patients With Bilateral Temporal Lobe Epilepsy (TLE) And Normal MRI Findings Or Mesial Temporal Sclerosis (MTS) Arthur Cukiert, MD, PhD	The Role Of Intrathecal Baclofen Therapy In Consciousness Disorders Associated With Spasticity Stefanos Korfiatis, MD, PhD	Peripheral Nerve Stimulation (PNS) For Chronic Craniofacial Neuropathic Pain With A Novel Wirelessly Powered Miniature Implantable Neurostimulator Electrode Array Laura Perryman, MS, MBA
1640 - 1650	Wikistim: An Interactive SCS Database Jane Shipley, BA	Using Multi-Site Brain Dynamics To Optimize Deep Brain Stimulation Protocols For Treating Epilepsy David Mogul, PhD	Intrathecal Baclofen Pump Implantation In Two Cases Of Stiff-Person Syndrome Vadim Bikmullin, PhD	The Advantage Of 20 Hz rTMS Stimulation In The Treatment Of Orofacial Pain Jitka Fricova, PhD
1650 - 1700	The MAP (Multiple Areas Of Pain) Study: Development Of The Multi-Site Pain Index Leonardo Kapural, MD	The Efficacy Of Anterior Thalamic Stimulation In Adult Patients With Intractable Seizures Andrey Sitnikov, MD	Braincon - An Implant For Closed-Loop Ecog Recording And Stimulation Martin Schuettler, PhD	Non-Invasive Vagus Nerve Stimulation For The Treatment Of Cluster Headache: A Cohort Series With Extended Follow-Up Alexander Nesbitt, BM, BCh
1700 - 1710	Coping Strategies Profiles As Predictors Of Long Term Spinal Cord Stimulation Treatment Mery Paroli, PsychD	Treatment Mesial Temporal Lobe Epilepsy With Amygdalohippocampal Stimulation: A Case Series And Review Of The Literature Min Bao, PhD	Resolving Chronic Non-Specific Low Back Pain Requires A New Approach Kristiaan Deckers, MD	Treatment Of The Axial Neck Pain With Or Without Upper Extremities Pain Using Spinal-Peripheral Neurostimulation Eugene Mironer, MD
1710 - 1720	Impact Of Wait-Times On Spinal Cord Stimulation Success Rates Krishna Kumar, MBBS	Vagus Nerve Stimulation In Refractory Epilepsy Arthur Cukiert, MD, PhD	Neuromuscular Reactivation: A New Therapy For Patients With Chronic Non-Specific Low Back Pain: Results Of A European Multicenter Feasibility Study Jean-Pierre Van Buyten, MD	

Wednesday, 12 June 2013 - Afternoon Concurrent Sessions - *continued*

	Free Oral Poster Presentations Neuromodulation for Pain	Free Oral Poster Presentations Brain Neuromodulation	Free Oral Poster Presentations Rehabilitation, Spinal Cord Injury, and FES	Free Oral Poster Presentations Headache
1720 - 1730	<b>Sacral Nerve Stimulation For The Treatment Of Chronic Low Back, Pelvic Girdle And Leg Pain: A Prospective Study</b> Bruce Mitchell, MD	<b>Accuracy And Limits Of A Skull-Mounted, Frameless Deep Brain Stimulation Procedure: Personal Experience</b> Tommaso Tufo, MD	<b>New Tactics For Treatment Of Sensorineural Hearing Loss</b> Hyun Ho Jung, MD	<b>A Retrospective Review Of Clinical Outcome Following Spinal Cord Stimulation In Phantom Limb Pain (Deafferentation Pain): Impact Of New Spinal Target Selection Method On Clinical Outcome</b> Harshini Naidu, MD
1730 - 1740	<b>Lasting Therapeutic Effect Of Peripheral Nerve Field Stimulation For Chronic Low Back Pain: Results Of The Prospective Study</b> Paul Verrills, MD	<b>Applicability Of 3.0 T MRI In The Planning Of The Subthalamic Nucleus Stimulation Procedure In Parkinson's Disease</b> Witold Libionka, MD	<b>Predicting Regions Of Cortical Activation Induced By Transcranial Magnetic Stimulation</b> David Mogul, PhD	<b>Intensity-Dependent Effects Of Cycling Versus Continuous Spinal Cord Stimulation On Nerve Injury-Evoked Hypersensitivity In An Animal Model Of Neuropathic Pain</b> Toni Cordero, PhD
1740 - 1750	<b>Peripheral Nerve Stimulation For Neuropathic Pain Caused By Leprosy</b> Tiago Freitas, MD	<b>Postoperative Deep Brain Stimulation Impedance Variability In Parkinson's Disease Patients</b> Francois Alesch, MD	<b>Cerebellar Tremor In Alcoholic Degeneration: Deep Brain Stimulation Of Red Nucleus Is Disappointing: A Case Report</b> Michel Lefranc, MD	<b>Motor Cortex Stimulation In Pain Management And Quality Of Life</b> Paul Verstegen, MA
1750 - 1800	<b>Targeted Sensory Nerve Stimulation Of The Dorsal Aspect Of The DRG With A Novel, Wireless Injectable Miniature Stimulator For Failed Back Surgery And Sciatic Back And Leg Pain</b> Laura Perryman, MS, MBA	<b>Time-Locked Changes In Single Unit Activity And Local Field Potentials In The Subthalamic Nucleus During A Grip Force Task In Parkinson's Patients</b> Lukas Imbach, MD	<b>Efficacy Of Deep Brain Stimulation In Critical Care Conditions</b> Roberto Cordella, PhD	<b>Motor Cortex Stimulation For Chronic Neuropathic Pain</b> Paul Verstegen, MA

**International Neuromodulation Society 11th World Congress**  
**Estrel Hotel in Berlin, Germany 8-13 June 2013**  
**Congress Agenda**

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<b>Thursday, 13 June 2013</b>			
<b>0730-0800</b>	BREAKFAST		
<b>Morning Concurrent Sessions</b>			
	<b>Room ECC A</b> <b>Cancer Pain 2013: Challenges and Opportunities</b> Moderator: Allen W. Burton, MD	<b>Room ECC 1</b> <b>Brain Neuromodulation Emerging Therapies</b> Moderator: Michel Prudhomme, MD, PhD	<b>Room ECC 2 + 3</b> <b>Gastrointestinal Disorders</b> Moderators: Thomas Abell, MD and Jiande Chen, PhD
<b>0800-0815</b>	<b>The Role of the Interventional Physician in Cancer Pain</b> Lisa Stearns, MD	<b>Optogenetics and Neuromodulation</b> Jaimie Henderson, MD	<b>Temporary Gastric Stimulation: Use of Electrical Stimulation for Upper Gut Symptoms of Diverse Etiologies</b> Tom Abell, MD
<b>0815-0830</b>	<b>Chronic Cancer Pain: A New, Difficult Clinical Problem</b> Allen Burton, MD	<b>Deep Brain Stimulation Sensing and Feedback Systems</b> Kendall Lee, MD, PhD	<b>Gastric Electrical Stimulation: Use in Patients Not Ordinarily Given Stimulation Therapies</b> Hans Tornblom, MD, PhD
<b>0830-0845</b>	<b>Use of Intrathecal Drug Algorithms in the Treatment of Cancer Pain</b> Timothy Deer, MD	<b>Deep Brain Stimulation for Hypertension</b> Nik Patel, BSc, MBBS, MD, FRCS	<b>Stimulation of the Upper Gut for Obesity</b> Abeezar Sarela, MD, FRCS
<b>0845-0900</b>	<b>The Challenges of Interventional Pain Research in Cancer Pain</b> Arun Bhaskar, MBBS, FRCA	<b>Deep Brain Stimulation for Traumatic Brain Injury</b> Ali Rezai, MD	<b>Neuromodulation for Lower GI Disorders</b> Anton Emmanuel, BSc, MD, FRCP
<b>0900-0915</b>	<b>Difficult Cases in Cancer Pain: Lessons Learned</b> Allen Burton, MD	<b>Deep Brain Stimulation for Obesity</b> Michael Oh, MD, PhD	<b>Endoscopically Placed Temporary Gastric Electrical Stimulation in the Pediatric Population</b> Chris Jolley, MD
<b>0915-0930</b>	<b>Discussion</b>	<b>Neuromodulation for Persistent Vegetative State and Minimally Conscious State</b> Takamitsu Yamamoto, MD, PhD	<b>GI Neuromodulation: Science or Fiction? Perspective on the Current and Future Uses in the Gut</b> Jiande Chen, PhD
<b>0930-1000</b>		<b>Discussion</b>	<b>Discussion</b>
<b>1000-1030</b>	BREAK		

Thursday, 13 June 2013 - Morning Concurrent Sessions - *continued*

1030-1130	<b>Free Oral Poster Presentations Neuromodulation for Pain</b> Moderator: Allen W. Burton	<b>Free Oral Poster Presentations Neuromodulation for Failed Back Surgery Syndrome</b> Moderator: Michel Prudhomme, MD, PhD	<b>Free Oral Poster Presentations Neuromodulation for GI Disorders and Pain</b> Moderators: Thomas Abell, MD and Jiande Chen, PhD
1030-1040	<b>Ziconotide Single Shot Trial And Subsequent Dosing For Cancer-Related Pain</b> Brian Bruel, MD	<b>A Prospective Comparative Study Of The Specify-565 Versus 2 (1x8) Octapolar Leads In Treatment Of Chronic Low Axial Back Pain From Failed Back Surgery Syndrome</b> Krishna Kumar, MBBS	<b>Electrical Stimulation Therapy Of The Lower Esophageal Sphincter: An Emerging Therapy For Refractory GERD; Preliminary Results Of An International Multicenter Trial</b> Edy Soffer, MD
1040-1050	<b>Estimating The Diagnostic Need For Magnetic Resonance Imaging (MRI) In A UK Neuropathic Pain Population Of Patients With Spinal Cord Stimulation Systems</b> Shanti Thavaneswaran, PhD	<b>Spinal Cord Stimulation For Chronic Neuropathic Pain (FBSS And NP): Long Term Systematic Outcome Review</b> Jibril Osman Farah, MD	<b>Chronic Effects Of Adjustable Gastric Electrical Stimulation(Ages) On The Food-Intake And Body Weight Of Beagle Dogs</b> Yan Mei Li, PhD
1050-1100	<b>Disparities In Magnetic Resonance Imaging Utilization In The US General Population, Spinal Cord Stimulator-Indicated, And -Implanted Patients</b> Mehul Desai, MPH	<b>Subcutaneous Stimulation As An Additional Therapy To Spinal Cord Stimulation For The Treatment Of Low Back Pain And Leg Pain In Failed Back Surgery Syndrome: Four Year Follow Up</b> Tanja Hamm-Faber, MA-ANP	<b>Inhibitory Effects Of Gastric/Duodenal Electrical Stimulation On Food Intake And Body Weight: A Comparative Study In Rats</b> Jiande Chen, PhD
1100-1110	<b>An Exploratory Pilot Study Of Intra-Thecal Spinal Cord Stimulation: Implications For The Future Management Of Chronic Pain</b> Jonathan Choi, MD	<b>Burst Spinal Cord Stimulation Evaluated In Patients With Failed Back Surgery Syndrome And Painful Diabetic Neuropathy</b> Sven Vanneste, PhD	<b>Therapy Of Chronic Pancreatitis Pain After Swine Influence (H1N1) With Spinal Cord Stimulation</b> Peter Lierz, MD
1110-1120	<b>Neurophysiology Of The Dorsal Root Ganglion (DRG): A Translational Premise For Neuromodulation In The Treatment Of Chronic Pain</b> Katja Burger, MD	<b>Treatment Of The Back Pain Component Of Failed Back Surgery Syndrome By Multi-Column Spinal Cord Stimulation: A Multicentre Prospective Study</b> Olivier Monlezun, PharmD	<b>Preoperative Ultrasound-Guided Mapping Of Peripheral Nerves</b> Michael Gofeld, MD
1120-1130	<b>Reproducibility And Feasibility Of Burst Stimulation: Preliminary Results</b> Anders Wahlstedt, MD	<b>CONUS-CAUDAL Stimulation In The Treatment Of Complex Pain In The Patients Affected By Failed Back Surgery Syndrome</b> Claudio Reverberi, MD	<b>Epidural Radiofrequency Stimulation Of Dorsal Root Ganglia: A Preliminary Report On A New Technique</b> Giuseppe Calcarella, MD
1140-1215	<b>Critical Evaluation of Non-Invasive Brain Stimulation for Chronic Pain and Other Less Invasive Neuromodulation Therapies</b> Turo Nurmikko, MD, PhD		
1215-1250	<b>Cancer Survivorship: An Increasing Challenge</b> TBD		
1250-1300	<b>Congress Closing Address</b> Dr. Simon Thomson, INS President and Congress Chair		
1300	Congress Adjourns		