**Poster Session 1: Saturday, August 25, 2018**

**Abstract Title:** Safety and efficacy of high definition tDCS for proprioception and balance in Parkinson’s disease

**Abstract ID:** 12827

**Authors:** Presenting Author - Hayley H. Teasdale; Co-Author - Elisabeth Preston, PhD, Physiotherapy; Co-Author - Andrew Flood, PhD; Co-Author - Gordon Waddington;

**Topic:** tDCS

**Abstract Title:** Medial and lateral temporal lobe neuromodulation in epilepsy: a simultaneous tdcs-seeg investigation

**Abstract ID:** 12832

**Authors:** Presenting Author - Samuel Louviot; Co-Author - Jacek Dmochowski, PhD; Co-Author - Jacques Jonas, MD, PhD; Co-Author - Louis Maillard, MD, PhD; Co-Author - Sophie Colnat-Coulbois, MD, PhD; Co-Author - Louise Tyvaert, Pr, MD, PhD; Co-Author - Laurent KOESSLER;

**Topic:** Clinical Neurological Applications

**Abstract Title:** Direct current stimulation of endothelial monolayers induces an increase in transport by the electroosmotic effect

**Abstract ID:** 12833

**Authors:** Presenting Author - John Tarbell; Co-Author - Marom Bikson, PhD; Co-Author - Limary M. Cancel; Co-Author - Niranjan Khadka;

**Topic:** tDCS

**Abstract Title:** Uniform Current Density Electrodes for a High-Resolution Deep-Brain-Stimulation Lead

**Abstract ID:** 12840

**Authors:** Presenting Author - Denys Nikolayev, Ph.D.; Co-Author - Emmeric Tanghe, M. Sc. Eng, Ph. D.; Co-Author - Wout Joseph; Co-Author - Thomas Tarnaud; Co-Author - Carolina Mora Lopez; Co-Author - Marleen Welkenhuysen, PhD; Co-Author - Luc Martens;

**Topic:** Deep Brain Stimulation (DBS)
Abstract Title: Using High-Electrode-Count Intrafascicular Peripheral Nerve Interfaces for Selective Mitigation of Chronic Pain

Abstract ID: 12845

Authors: Presenting Author - David Kluger, BS; Co-Author - Christopher Duncan; Co-Author - Tyler Davis, MD, PhD; Co-Author - David J. Warren, Ph. D.; Co-Author - Douglas Hutchinson, MD; Co-Author - Gregory Clark, PhD;

Topic: Clinical Neurological Applications

Abstract Title: Toward Wearable Sensing Enabled Closed-Loop Non-invasive Vagus Nerve Stimulation: A Study of Real-Time Physiological Biomarkers

Abstract ID: 12850

Authors: Presenting Author - Nil Z. Gurel, MS; Co-Author - Hewon HJ. Jung, Graduate Research Assistant, PhD student; Co-Author - Allison Hankus; Co-Author - Stacy L. Ladd; Co-Author - Md Mobashir H., Shandhi; Co-Author - Minxuan Huang, MS; Co-Author - Steven D. Rhodes, 4015555, RN; Co-Author - Lucy Shallenberger, MPH; Co-Author - Brad D. Pearce, Ph.D.; Co-Author - Amit Shah, MD, MSCR; Co-Author - Viola Vaccarino, MD, PhD; Co-Author - Omer T. Inan, PhD; Co-Author - J. Douglas Bremner;

Topic: Improve Neuromod wtih Closed Loop tech
Abstract Title: Optimizing Deep Brain Stimulation Parameters in Intractable Epilepsy: An EEG Based Selection Mode

Abstract ID: 12851

Authors: Presenting Author - Harinder Jaseja;

Topic: Deep Brain Stimulation (DBS)

Abstract Title: Designing Spinal Cord Stimulation (SCS) Systems Based on Clinical Findings on Sub-Perception SCS

Abstract ID: 12852

Authors: Co-Author - Jianwen Wendy Gu, PhD; Co-Author - Michael Moffitt, PHD; Co-Author - Rosana Esteller; Co-Author - Rafael Carbunaru, PHD; Presenting Author - Simon Thomson, MBBS;

Topic: SCS

Abstract Title: Effects of anodal transcranial direct current stimulation on variability of corticospinal responses in humans.

Abstract ID: 12853

Authors: Presenting Author - Shahid Bashir; Co-Author - Shafiq Ahmad; Co-Author - Moath Alatefi; Co-Author - Ali Hamza; Co-Author - Woo Kyoung Yoo;

Topic: tDCS

Abstract Title: Transcranial Direct Current Stimulation (tDCS) vs. Caffeine: A Comparison Between Their Effects on Cognitive Functions

Abstract ID: 12856

Authors: Presenting Author - Abdulrahman Alammar, 5th year medical student (MBBS); Co-Author - Ziyad Tasan, 5th year medical student, MBBS; Co-Author - Rayan Alowaisheq; Co-Author - Moneera O. Aldraihem; Co-Author - Syed S. Habib; Co-Author - Shahid Bashir;

Topic: Basic Science

Abstract Title: Closed-Loop tACS Targeting Slow-Wave Oscillations During Sleep Enhances Consolidation of Generalized Information

Abstract ID: 12857
Authors: Presenting Author - Aaron P. Jones, M.S.; Co-Author - Jaehoon Choe, PhD; Co-Author - Natalie B. Bryant, PhD; Co-Author - Charles S. Robinson, MS; Co-Author - Nicholas A. Ketz, PhD; Co-Author - Steven W. Skorheim, PhD; Co-Author - Angela Combs; Co-Author - Melanie L. Lamphere; Co-Author - Bradley M. Robert, B.S.; Co-Author - Hope A. Gill, BA in Psychology; Co-Author - Melissa D. Heinrich, BA; Co-Author - Mike D. Howard, 5069861, MSEE; Co-Author - Vincent P. Clark, PhD; Co-Author - Praveen K. Pilliy, PhD;

Topic: tACS

Abstract Title: Transcranial Electric Stimulation with Multiple Electrodes Can Reach Deep Brain Areas

Abstract ID: 12859

Authors: Presenting Author - Yu Huang, PhD; Co-Author - Lucas Parra, PhD;

Topic: tDCS
Abstract Title: Inaccurate Segmentation of Lesioned Brains Can Significantly Affect Targeted Transcranial Electrical Stimulation on Stroke Patients

Abstract ID: 12861

Authors: Presenting Author - Yu Huang, PhD; Co-Author - Chris Thomas; Co-Author - Abhishek Datta, PhD; Co-Author - Lucas Parra, PhD;

Topic: tDCS

Abstract Title: Does Transcutaneous Auricular Vagal Nerve Stimulation Improve Acupuncture’s Autonomic effect in Migraineurs? Clinical HRV Study

Abstract ID: 12862

Authors: Presenting Author - Kristen Sparrow, MD;

Topic: Non invasive Cranial / Vagus Nerve Stim

Abstract Title: Towards a microcoil-based cortical visual prosthesis

Abstract ID: 12863

Authors: Presenting Author - Shelley Fried, PhD; Co-Author - Seung Woo Lee, PhD;

Topic: Novel Neuromodulation Techniques

Abstract Title: Direction of PAS-Induced Modulation of Corticospinal Excitability Depends on Timing Between Stimulation and Movement Onset

Abstract ID: 12865

Authors: Presenting Author - Ahmad O. Alokaily, MS; Co-Author - Mathew Yarossi, 6176101, PhD; Abstract Organizer - Sergei V. Adamovich, PhD;

Topic: Plasticity of the Nervous System

Abstract Title: Methods to Determine Accuracy in tDCS Electrode Placements

Abstract ID: 12866

Authors: Presenting Author - Aprinda Indahlastari, PhD; Co-Author - Nicole R. Nissim, MS, PhD Candidate; Co-Author - Andrew O'Shea, MSc.; Co-Author - Adam J. Woods, PhD;

Topic: tDCS
Abstract Title: Building partnerships through obtaining stakeholders’ feedback to develop a tele-rehabilitation program for children with autism

Abstract ID: 12868

Authors: Presenting Author - Parisa Ghanouni; Co-Author - Tal Jarus, PhD. OT;

Topic: Online and Apps
Abstract Title: Development of a novel patient-oriented tool measuring socio-emotional skills among children with autism spectrum disorder

Abstract ID: 12869

Authors: Presenting Author - Parisa Ghanouni; Co-Author - Tal Jarus, PhD. OT;

Topic: Online and Apps

Abstract Title: Effects of Bilateral-Frontal tDCS on the Working Memory Network: an fMRI-tDCS Study in Older Adults

Abstract ID: 12871

Authors: Presenting Author - Nicole R. Nissim, MS, PhD Candidate; Co-Author - Andrew O'Shea, MSc.; Co-Author - Lindsey A. Richards, M.Ed, Ed.S; Co-Author - Rachel Telles, BA; Co-Author - Eric Porges, PhD; Co-Author - Ronald Cohen, PhD; Co-Author - Adam J. Woods, PhD;

Topic: Combining Brain Simulation with Imaging

Abstract Title: Interindividual variability in cortical plasticity assessment by application of Theta burst stimulation on M1.

Abstract ID: 12873

Authors: Presenting Author - Ali Hamza; Co-Author - Shahid Bashir; Co-Author - Woo Yoo;

Topic: TMS

Abstract Title: Transcranial Direct Current Stimulation of the Frontal-Parietal-Temporal Brain Area Reduces Cigarette Consumption in Heroin Users

Abstract ID: 12874

Authors: Presenting Author - Zhiqiang Meng;

Topic: tDCS

Abstract Title: Noninvasive Neuromodulation of the Cerebellum via tDCS Affects Appetite in Subjects with Obesity

Abstract ID: 12876

Authors: Co-Author - Guillem Cuatrecasas, M.D; Co-Author - Elena M. Marron, PhD; Presenting Author - Raquel Viejo-Sobera, PhD; Co-Author - Pilar Garcia-Lorda, MD, PhD; Co-Author - Diego C. Redolar-Ripoll,
263890, PhD Neuroscience; Co-Author - Abhishek Datta, PhD; Co-Author - Greta Magerowski; Co-Author - Miguel Alonso-Alonso, MD PhD;

**Topic:** Novel Applications

**Abstract Title:** Are Patients and Physicians Ready for Neuromodulation via Telehealth?

**Abstract ID:** 12877

**Authors:** Presenting Author - Kelly Harper, BPS; Co-Author - Eli Zimmerman, MD; Co-Author - Derek Riebau, MD; Co-Author - Peter Konrad, MD PhD; Co-Author - David Charles, MD;

**Topic:** Digital Healthcare
Abstract Title: Computational and Immunohistochemical Evidence of Direct Dorsal Horn Modulation by Sub-Perception Spinal Cord Stimulation

Abstract ID: 12878

Authors: Co-Author - Shiying Li, PhD; Co-Author - Tianhe Zhang, PhD; Co-Author - Changfang Zhu; Co-Author - Jay Farber, Ph.D.; Co-Author - Jianwen Wendy Gu, PhD; Co-Author - Rosana Esteller; Co-Author - Michael Moffitt, PHD; Co-Author - Bengt Linderoth, PhD; Presenting Author - Robert D. Foreman, FAHA, PhD;

Topic: Basic Science

Abstract Title: Ultrasound Neuromodulation for the Treatment of Peripheral Nerve Compression Syndromes

Abstract ID: 12879

Authors: Co-Author - Andrew Clary, MS MPT ATC; Co-Author - William J. Tyler, PhD; Presenting Author - Daniel Wetmore, PhD;

Topic: Peripheral Nerve Stimulation

Abstract Title: Stimulation Patterns: Convergence and Divergence of Neurophysiological Effects in Spinal Cord Stimulation (SCS)

Abstract ID: 12882

Authors: Presenting Author - Lawrence Poree, MD MPH PhD; Co-Author - Peter S. Staats, MD MBA; Co-Author - Leo Lapural, MD, PhD; Co-Author - Robert M. Levy, MD, PhD; Co-Author - Timothy R. Deer, MD; Co-Author - James Makous, PhD; Abstract Organizer - Jeffery Kramer, PhD;

Topic: SCS Waveform Advancements

Abstract Title: Current State of Blinding in tACS Research

Abstract ID: 12883

Authors: Co-Author - Richard M. Arenas, PhD; Presenting Author - Jessica Richardson; Co-Author - Sarah Grace Dalton, M.S.P.; Co-Author - Holly Stewart;

Topic: tACS

Abstract Title: Technology Advancements and System Design Elements in Miniaturized Spinal Cord Stimulation Systems

Abstract ID: 12884
**Authors:** Presenting Author - Robert M. Levy, MD, PhD; Co-Author - Timothy R. Deer, MD; Co-Author - Kasra Amirdelfan, MD; Co-Author - Lawrence Poree, MD MPH PhD; Co-Author - Leo Kapural, MD, PhD; Co-Author - Lakshmi Narayan Mishra; Co-Author - Lee Hartley, 9032636, PhD; Abstract Organizer - Jeffery Kramer, PhD; Co-Author - Peter S. Staats, MD MBA;

**Topic:** SCS

**Abstract Title:** INTREPID: Double-Blinded Randomized Controlled Trial Using a New Multiple-Source, Constant-Current DBS System in Parkinson’s Disease

**Abstract ID:** 12885

**Authors:** Presenting Author - Jerrold Vitek, MD, PhD; Abstract Organizer - Roshini Jain, MS; Co-Author - Lilly Chen, MD; Co-Author - INTREPID Study Group; Co-Author - Philip A. Starr, MD, PhD;

**Topic:** Deep Brain Stimulation (DBS)
Abstract Title: WHISPER: A Randomized Controlled Trial Evaluating Sub-Perception SCS (at ≤1.2kHz) in a Highly-Disabled, Previously-Implanted Cohort

Abstract ID: 12886

Authors: Presenting Author - James North, MD; Co-Author - WHISPER Study Group; Co-Author - Lilly Chen, MD; Abstract Organizer - Roshini Jain, MS;

Topic: SCS Waveform Advancements

Abstract Title: Improving cross-cultural 'mind-reading' using electrical stimulation

Abstract ID: 12889

Authors: Presenting Author - Andrew K. Martin, PhD; Co-Author - Marcus Meinzer, PhD;

Topic: tDCS

Abstract Title: Evaluation of CRPS Patients Using an SCS System with Multiple Waveform and Stimulation Frequency Options

Abstract ID: 12890

Authors: Presenting Author - Joseph Atallah, MD; Co-Author - John J. Han, MD; Co-Author - Stephen T. Pyles, MD; Co-Author - Melinda M. Lawrence, MD; Co-Author - Clark Metzger, MD; Co-Author - M. Blake Hammond, PA; Co-Author - Robert Frey, MD, MBA; Co-Author - Edward Washabaugh, MD, FIPP; Co-Author - Kristen Lechleiter, MS; Co-Author - Yu Pei, MPA; Abstract Organizer - Roshini Jain, MS;

Topic: SCS Waveform Advancements

Abstract Title: Null Effects of Transcranial Direct Current Stimulation (tDCS) on Verbal Fluency: A Double-blind, Sham-controlled Study

Abstract ID: 12891

Authors: Presenting Author - E. Susan Duncan, PhD, CCC-SLP;

Topic: tDCS

Abstract Title: SCS Outcomes in Patients Utilizing Device Capable of Combination Therapy with Advanced-Waveforms and -Field Shapes

Abstract ID: 12892

Authors: Presenting Author - Clark Metzger, MD; Co-Author - M. Blake Hammond, PA; Co-Author - Stephen T. Pyles, MD; Co-Author - Yu Pei, MPA; Abstract Organizer - Roshini Jain, MS;
**Topic:** SCS Waveform Advancements

**Abstract Title:** tACS Motor System Effects are Caused by Transcutaneous Stimulation and not Transcranial Stimulation

**Abstract ID:** 12893

**Authors:** Presenting Author - Ahmad Khatoun; Co-Author - Boateng Asamoah; Co-Author - Myles McLaughlin;

**Topic:** tACS
**Abstract Title:** Optimizing the neuroplastic effects of cathodal transcranial direct current stimulation over the primary motor cortex

**Abstract ID:** 12895

**Authors:** Co-Author - Mohsen Mosayebi; Co-Author - Michael A. Nitsche, MD; Presenting Author - Min-Fang Kuo;

**Topic:** tDCS

**Abstract Title:** Implantable Neural Recording and Stimulation technologies for in-vivo Electrophysiology

**Abstract ID:** 12897

**Authors:** Presenting Author - James C. Morizio, Ph.D.;

**Topic:** Peripheral Nerve Stimulation

**Abstract Title:** Imaging Medullary Brainstem Response to Respiratory-Gated Auricular Vagal Afferent Nerve Stimulation (RAVANS) at Ultrahigh-Field (7T)

**Abstract ID:** 12899

**Authors:** Presenting Author - Roberta Sclocco, PhD; Co-Author - Ronald G. Garcia, MD, PhD; Co-Author - Harrison P. Fisher; Co-Author - Jessica A. Stowell; Co-Author - Kylie Isenburg; Co-Author - Norman W. Kettner, DC, DACBR, FICC; Co-Author - Jonathan R. Polimeni, 7244546, PhD; Co-Author - Jill Goldstein, PhD; Co-Author - Nikos Makris, MD, PhD; Co-Author - Nicola Toschi, PhD; Co-Author - Riccardo Barbieri, PhD; Co-Author - Vitaly Napadow, PhD;

**Topic:** Combining Brain Simulation with Imaging

**Abstract Title:** A Computational Model of the Cortico-Cerebello-Thalamo-Cortical Pathway Under Essential Tremor and Cerebellar Neuromodulation

**Abstract ID:** 12900

**Authors:** Presenting Author - Sabato Santaniello, PhD;

**Topic:** Modeling of Brain Stimulation Methods

**Abstract Title:** Effects of fMRI-informed tDCS on Multitasking

**Abstract ID:** 12902

**Authors:** Co-Author - Thomas McWilliams, BS; Co-Author - Erika K. Hussey, PhD; Co-Author - Tad Brunyé, PhD; Presenting Author - Nathan Ward, PhD;
**Topic:** tDCS

**Abstract Title:** A Machine Learning Solution to Identify Signature Traits in Optimized DBS Patterns for Parkinson’s Disease

**Abstract ID:** 12903

**Authors:** Presenting Author - Sabato Santaniello, PhD; Co-Author - Patrick Myers;

**Topic:** Modeling of Brain Stimulation Methods
**Abstract Title:** Early Clinical Experience with a New Spinal Cord Stimulation Lead for Multi-Site Pain

**Abstract ID:** 12906

**Authors:** Presenting Author - Romanth Waghmarae, MD, DABA, FACIP, FIPP; Co-Author - Edward Washabaugh, MD, FIPP; Co-Author - Melinda M. Lawrence, MD; Co-Author - Lilly Chen, MD; Co-Author - Yu Pei, MPA; Co-Author - Kristen Lechleiter, MS; Abstract Organizer - Roshini Jain, MS;

**Topic:** SCS

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**Abstract Title:** First-in-Class Neuromodulation Therapy in Subjects with Rheumatoid Arthritis: Two-Year Safety and Efficacy

**Abstract ID:** 12907

**Authors:** Presenting Author - David N. Chernoff, M.D.; Co-Author - Yaakov A. Levine, PHD;

**Topic:** VNS

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**Abstract Title:** Modulating Inhibitory Control Networks in Gambling Disorder with Theta Burst Stimulation

**Abstract ID:** 12908

**Authors:** Presenting Author - Anna Marras; Co-Author - Gioele Gavazzi; Co-Author - Giacomo Grassi, MD; Co-Author - Yogesh Rathi; Co-Author - Mario Mascalchi; Co-Author - Nikos Makris, MD, PhD; Co-Author - Joan A. Camprodon, MD MPH PhD; Co-Author - Stefano Pallanti, 2190523, MD PhD;

**Topic:** TMS

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**Abstract Title:** SCS Outcomes in Patients Using Conventional Rate (40-60Hz) Paresthesia and Higher Rate (1,000-1,200Hz) Sub-Threshold Programming

**Abstract ID:** 12909

**Authors:** Presenting Author - Stephen T. Pyles, MD; Co-Author - Kristen Lechleiter, MS; Co-Author - Lilly Chen, MD; Abstract Organizer - Roshini Jain, MS;

**Topic:** SCS Waveform Advancements

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**Abstract Title:** Immersive Virtual Reality Cognitive Training for Patients with Moderate to Severe Traumatic Brain Injury

**Abstract ID:** 12910

**Authors:** Co-Author - Wellingson S. Paiva, MD, PhD; Presenting Author - Thiago M. Moraes;
**Abstract Title:** Posterior Lumbar/Sacral Nerve Root Stimulation for Treatment of Chronic Foot and/or Ankle Pain

**Abstract ID:** 12911

**Authors:** Presenting Author - Stephen T. Pyles, MD; Co-Author - Kristen Lechleiter, MS; Co-Author - Lilly Chen, MD; Abstract Organizer - Roshini Jain, MS;

**Topic:** SCS
Abstract Title: A Novel Approach to Identifying the Optimal Placement of a SCS Generator Pocket during Implantation

Abstract ID: 12912

Authors: Co-Author - Erica Patel, DO; Presenting Author - Soon Jung, MD; Co-Author - Supreet Grewal, MD;

Topic: Novel Neuromodulation Techniques

Abstract Title: Feasibility of tDCS for Symptom Control in Elderly Chronically Ill Nursing Home Residents

Abstract ID: 12913

Authors: Presenting Author - Alexa Riggs, MPH; Co-Author - Mohammed Butt, MD, CMD; Co-Author - Ummia Zaman, BSc; Co-Author - Russell K. Portenoy, MD; Co-Author - Helena Knotkova, PhD, PhilD;

Topic: tDCS

Abstract Title: Intensity Dependent Spiking Modes in an Ultrasonically Stimulated Subthalamic Nucleus Computational Model

Abstract ID: 12914

Authors: Presenting Author - Thomas Tarnaud; Co-Author - Wout Joseph; Co-Author - Luc Martens; Co-Author - Timothy Xw. Van Renterghem, Dr; Co-Author - Emmeric Tanghe, M. Sc. Eng, Ph. D.;

Topic: Modeling of Brain Stimulation Methods

Abstract Title: Virtual Eye Rotation Vision Exercises (VERVE): A Virtual Reality Vision Therapy Platform with Eye Tracking

Abstract ID: 12915

Authors: Presenting Author - Chang Yaramothu, PhD; Co-Author - John Vito d’Antonio-Bertagnolli, M.S.; Co-Author - Elio M. Santos, Ph.D.; Co-Author - Mitchell Scheiman, OD, PhD; Co-Author - Tara L. Alvarez, PhD;

Topic: Engineering

Abstract Title: Frontoparietal Theta tACS Enhances Verbal Working Memory in Healthy Humans with High Working Memory Capacity

Abstract ID: 12916
**Authors:** Presenting Author - Zhenhong Hu; Co-Author - Adam J. Woods, PhD; Co-Author - Immanuel Babu Henry Samuel; Co-Author - Sreenivasan Meyyappan; Co-Author - Mingzhou Ding;

**Topic:** tACS

**Abstract Title:** The Effect of tDCS on Cognitive Performance in Youth with Concussion: A Pilot Study

**Abstract ID:** 12919

**Authors:** Presenting Author - Keelia Quinn de Launay, B.Art.Sci.; Co-Author - Stephanie T. Cheung, MASc; Co-Author - Lily Riggs, PhD, C.Psych; Co-Author - Nick Reed, PhD, MScOT, OT Reg (Ont); Co-Author - Deryk S. Beal, PhD, Reg. CASLPO, CCC-SLP;

**Topic:** tDCS
Abstract Title: Cognitive Training with and without tDCS in Older Adults with HIV Infection
Abstract ID: 12920
Authors: Presenting Author - Raymond L. Ownby, MD, PhD;
Topic: tDCS

Abstract Title: A 'Divide-and-Conquer' Strategy to Optimize Brain-State Decoding from High-Dimensional Field Potential Features Without Overfitting
Abstract ID: 12921
Authors: Presenting Author - Dawn M. Taylor, PhD; Co-Author - Tyler Johnson; Co-Author - Emine M. Tunc, MD; Co-Author - Sarah R. Moralle, RVT; Co-Author - Susan E. Russ, 4012604, B.A.;
Topic: Improve Neuromod wtih Closed Loop tech

Abstract Title: Management of Spinal Cord Stimulator Dural Puncture and Infectious Risk
Abstract ID: 12925
Authors: Co-Author - Edward Podgorski, III, MD; Presenting Author - Joshua Oppenheimer, DO; Co-Author - Kelly De Souza, MD;
Topic: SCS

Abstract Title: Effect of Anodal Transcranial Direct Current Stimulation on Motor Learning in Healthy Individuals
Abstract ID: 12927
Authors: Presenting Author - Nirsan Kunaratnam; Co-Author - Tyler M. Saumur; Co-Author - Dana Swarbrick, BSc; Co-Author - Alex Kiss, PhD; Co-Author - George Mochizuki, PhD; Co-Author - Joyce L. Chen, PhD;
Topic: tDCS

Abstract Title: Effects of Transcranial Stimulation On Cognitive Function And Brain Functional Changes In Schizophrenia
Abstract ID: 12928
Authors: Presenting Author - Robert C. Smith, M.D., Ph.D.; Co-Author - Wei Li, MD; Co-Author - Stan J. Colcombe, III, Ph.D.; Co-Author - John M M. Davis, M.D.; Co-Author - Chunbo Li, M.D.;
Topic: Brain
Abstract Title: A human in-vivo evaluation of roast using simultaneous intracerebral electrical stimulations and scalp eeg

Abstract ID: 12933

Authors: Presenting Author - Samuel Louviot; Co-Author - Jacek Dmochowski, PhD; Co-Author - Jacques Jonas, MD, PhD; Co-Author - Louis Maillard, MD, PhD; Co-Author - Sophie Colnat-Coulbois, MD, PhD; Co-Author - Louise Tyvaert, Pr, MD, PhD; Co-Author - Laurent KOESSLER;

Topic: Modeling of Brain Stimulation Methods
Abstract Title: Managing severe traumatic brain injury with late presentation using transcranial direct current stimulation

Abstract ID: 12935

Authors: Presenting Author - Rohit Dr. Verma, MD; Co-Author - Renu Sharma, MSc; Co-Author - Kanwal P. Kochhar, 59100, MD; Co-Author - Vandana Choudhary, MSc; Co-Author - Nikita Ms. Bhati, M.Phil (Clinical Psychology);

Topic: tDCS

Abstract Title: Self-other processing in young and older adults: a high-definition transcranial direct current study

Abstract ID: 12938

Authors: Presenting Author - Andrew K. Martin, PhD; Co-Author - Marcus Meinzer, PhD;

Topic: tDCS

Abstract Title: Effect of tDCS over Motor Cortex on Isometric Rate of Force Development in Healthy Adults

Abstract ID: 12939

Authors: Co-Author - Alex Cates, BA; Co-Author - Randall Lin, BSE; Presenting Author - Brett Wingeier, PhD;

Topic: tDCS

Abstract Title: Effects of Repetitive Transcranial magnetic Stimulation on Cognition and Neuroplasticity in Subacute Stroke Patients

Abstract ID: 12941

Authors: Presenting Author - Yeong Wook Kim, MD;

Topic: Combining Brain Simulation with Imaging

Abstract Title: High-Definition tDCS to the Dorsolateral Prefrontal Cortex during Cognitive Control in Young and Older Adults

Abstract ID: 12943

Authors: Presenting Author - Oyetunde Gbadeyan; Co-Author - Marco Steinhauser; Co-Author - Andrew K. Martin, PhD; Co-Author - Marcus Meinzer, PhD;
Abstract Title: Regulation of Human Soleus H-Reflex Phase Dependent Modulation by Transspinal Stimulation during Treadmill Walking

Abstract ID: 12945

Authors: Presenting Author - Md. Anamul Islam, PhD; Co-Author - Jeffrey Li; Co-Author - Timothy S. Pulverenti, PhD; Co-Author - Lynda Murray, PhD; Co-Author - Maria Knikou, PT, PhD;

Topic: tDCS

Abstract ID: 12946

Authors: Presenting Author - Igor A. Lavrov, M.D., Ph.D.; Co-Author - Brian Lundstrom; Co-Author - Bryan T. Klassen, MD; Co-Author - Kendall H. Lee, MD, PhD; Co-Author - Squire M. Stead;

Topic: Novel Neuromodulation Techniques

Abstract Title: Transspinal Stimulation Mediated Spinal Neural Reflex Interactions

Abstract ID: 12948

Authors: Presenting Author - Timothy S. Pulverenti, PhD; Co-Author - Lynda Murray, PhD; Co-Author - Md. Anam Islam, PhD; Co-Author - Maria Knikou, PT, PhD;

Topic: Basic Neuroscience and Neurophysiology

Abstract Title: Neuromodulation of the spinal cord regeneration with epidural stimulation and Schwann cell seeded hydrogel scaffolds.

Abstract ID: 12949

Authors: Co-Author - Carlos A. Cuellar, Dr.; Co-Author - Ahad M. Siddiqui, PhD; Co-Author - Jodi L. Silvernail; Co-Author - Bingkun K. Chen; Co-Author - Bruce Knudsen, M.S.; Co-Author - Jarred J. Nesbitt; Co-Author - Peter J. Grahn, BA,PHD; Co-Author - Nicolas N. Madigan; Co-Author - Anthony J. Windebank, MD; Presenting Author - Igor A. Lavrov, M.D., Ph.D.;

Topic: SCS

Abstract Title: Cortical network complexity under different levels of excitability controlled by direct current stimulation

Abstract ID: 12951

Authors: Co-Author - Almudena Barbero-Castillo; Co-Author - Julia F. Weinert; Co-Author - Alessandra Camassa; Co-Author - Lorena Perez-Mendez; Co-Author - Sara Caldas-Martinez; Presenting Author - Mavi Sanchez-Vives, MD PhD;

Topic: tDCS

Abstract Title: Repetitive Transcranial Magnetic Stimulation (rTMS) in chronic diffuse axonal injury: a randomized controlled trial

Abstract ID: 12952
Authors: Presenting Author - Cintya Hayashi, RN; Co-Author - Iuri S. Neville, MD; Co-Author - Priscila Rodrigues, Psychology; Co-Author - Ricardo RG. Galhardoni, Gerontologist, PhD; Co-Author - Ana Luiza Zaninotto, 2942080, PhD; Co-Author - Daniel C. de Andrade, PhD; Co-Author - Manoel J. Teixeira, MD,PHD; Co-Author - Wellingson S. Paiva, MD, PhD;

Topic: TMS

Abstract Title: Are parameters describing the input-output relation of motor evoked potentials redundant?

Abstract ID: 12954

Authors: Presenting Author - Jean-Charles LAMY, PhD; Co-Author - Claire C. Kemlin; Co-Author - Eric J. Moulton, Jr; Co-Author - Marion Houot, MSC; Co-Author - Charlotte Rosso;

Topic: TMS
Abstract Title: Protective Effect of Pedunculopontine Tegmental Nucleus Deep Brain Stimulation on Hippocampus Apoptosis

Abstract ID: 12955

Authors: Presenting Author - Chih-Wei Peng;

Topic: Deep Brain Stimulation (DBS)

Abstract Title: Efficacy of Low-Frequency rTMS over the Right Dorsolateral Prefrontal Cortex following Mild Traumatic Brain Injury

Abstract ID: 12956

Authors: Presenting Author - Benjamin P. Meek, B.Sc. M.A.; Co-Author - Scott R. Hill, M.D.; Co-Author - Mandana Modirrousta, M.D. Ph.D.;

Topic: TMS

Abstract Title: Multiple sessions of cathodal tsDCS alter phrenic motoneurons output and spontaneous breathing pattern

Abstract ID: 12957

Authors: Co-Author - Marie-Cécile Niérat, PhD; Co-Author - Thomas Similowski; Presenting Author - Jean-Charles LAMY, PhD;

Topic: SCS

Abstract Title: Paradoxical Heightened Ipsilesional Corticospinal Excitability in Mild to Moderate Hemiparesis

Abstract ID: 12958

Authors: Co-Author - Celeste Camargo; Co-Author - Avrielle Rykman Peltz, MA, OTR/L; Co-Author - Mar Cortes, MD; Presenting Author - Dylan J. Edwards, PhD;

Topic: Clinical Neurological Applications

Abstract Title: Assessment of cortical excitability with Transcranial Magnetic Stimulation in patients with brain tumor

Abstract ID: 12961

Authors: Presenting Author - Cintya Hayashi, RN; Co-Author - Iuri S. Nevile, MD; Co-Author - Cesar C. Almeida; Co-Author - Priscila Rodrigues, Psychology; Co-Author - Ricardo RG. Galhardoni, Gerontologist,
Abstract Title: Improving Neurostimulation Clinical Trial Design with Patient Experience Data

Abstract ID: 12962

Authors: Presenting Author - Heather L. Benz, PhD; Co-Author - Brittany Caldwell, PhD; Co-Author - John P. Ruiz, MBS; Co-Author - Anindita Saha, BSE; Co-Author - Martin Ho, MS; Co-Author - Stephanie Christopher, MA; Co-Author - Dawn Bardot, PhD; Co-Author - Margaret Sheehan, 3283707, JD; Co-Author - Anne C. Donnelly, DPH; Co-Author - Lauren McLaughlin, MBA; Co-Author - Brennan Mange, 9031100, BA; Co-Author - Brett Hauber, PhD; Co-Author - Katrina Gwinn, MD, FAAN; Co-Author - Murray Sheldon, MD;

Topic: Advocacy
**Abstract Title:** Neuromodulation as way to affect ADHD related symptoms. A tDCS study.

**Abstract ID:** 12967

**Authors:** Presenting Author - Barbara Colombo; Co-Author - Paola Iannello; Co-Author - Amanda S. Christensen; Co-Author - Alice Cancer;

**Topic:** Cognitive and Affective Neuroscience

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**Abstract Title:** Case Study: tDCS Combined with Balance Training and Gait Training in Cerebellar Atrophy.

**Abstract ID:** 12968

**Authors:** Presenting Author - João Batista; Co-Author - Licinio Machado; Co-Author - Henrique Porto;

**Topic:** tDCS

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**Abstract Title:** Patterns of Current Flow Generated by different tDCS montages in Brainstem Structures Related to Pain

**Abstract ID:** 12971

**Authors:** Presenting Author - Estevão Fonseca, MD student; Co-Author - Dennis Q. Truong, MS; Co-Author - Alexandre DaSilva, DDS, DMedSc; Co-Author - Marom Bikson, PhD; Co-Author - Marcos F. DosSantos, DDS, MS, PhD;

**Topic:** tDCS

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**Abstract Title:** Effects of Bilateral tDCS of DLPFC on Processing of Emotional Stimuli: the Role of Empathy.

**Abstract ID:** 12972

**Authors:** Presenting Author - Barbara Colombo; Co-Author - Stefania Balzarotti, Dr.; Co-Author - Rodney A. Rivers;

**Topic:** Basic Science

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**Abstract Title:** Effect of Spinal Cord Stimulation on Intraoperatively Recorded EEG in Chronic Pain Patients

**Abstract ID:** 12974
**Authors:** Presenting Author - Ilknur Telkes, MSc, PhD; Co-Author - Steven Paniccioli, CNIM; Co-Author - Rachael Grey, CNIM; Co-Author - Michael Briotte, CNIM; Co-Author - Kevin McCarthy, CNIM; Co-Author - Michael Briotte, CNIM; Co-Author - Kevin McCarthy, CNIM; Co-Author - Julie G. Pilitsis, MD, PhD;

**Topic:** SCS

**Abstract Title:** Transcranial Magnetic Stimulation of Morphologically-Accurate, Layer-Specific Model Neurons in Realistic Head Geometry

**Abstract ID:** 12975

**Authors:** Presenting Author - Aman Aberra; Co-Author - Boshuo Wang, Ph.D.; Co-Author - Warren M. Grill, PhD; Co-Author - Angel V. Peterchev, PhD;

**Topic:** TMS
Abstract Title: Cognitive Neuroengineering: Defining a New Paradigm

Abstract ID: 12976

Authors: Presenting Author - John D. Medaglia, PhD;

Topic: Novel Neuromodulation Techniques

Abstract Title: Optical Measurement of Cerebral Blood Flow to Investigate Brain Stimulation and Task Engagement

Abstract ID: 12981

Authors: Presenting Author - Jessica Richardson; Co-Author - Davin Quinn; Co-Author - Richard M. Arenas, PhD; Co-Author - Sarah Grace Dalton, M.S.P.; Co-Author - Nicole Larsen, BA; Co-Author - Sergei von Hoyningen-Huene; Co-Author - Christie Carroll Duhigg; Co-Author - Dana Pinchotti, DO;

Topic: Combining Brain Simulation with Imaging

Abstract Title: Effects of cerebellar delta and theta frequency tACS on cognitive performance in patients with schizophrenia

Abstract ID: 12984

Authors: Presenting Author - Arun Singh; Co-Author - Krystal L. Parker;

Topic: Brain

Abstract Title: Influence of Model Extent in Forward Simulations of tDCS: Towards Standardizing Model Extent

Abstract ID: 12986

Authors: Presenting Author - Chris Thomas; Co-Author - Yu Huang, PhD; Co-Author - Abhishek Datta, PhD;

Topic: tDCS

Abstract Title: fMRI of rat brain responses to noxious stimulation during burst versus tonic spinal cord stimulation

Abstract ID: 12987

Authors: Co-Author - Mohammad Saber, Ph.D.; Co-Author - David Schwabe, B.S.; Co-Author - Alexander R. Kent, PhD; Co-Author - John Tessmer, B.S.; Presenting Author - Quinn Hogan, MD; Co-Author - Christopher Pawela, Ph.D.;
Abstract Title: Cortical Contributions to Neuroplasticity after Repetitive Transspinal Stimulation in Healthy Humans

Abstract ID: 12989

Authors: Presenting Author - Lynda Murray, PhD; Co-Author - Timothy S. Pulverenti, PhD; Co-Author - Md. Anamul Islam, PhD; Co-Author - Maria Knikou, PT, PhD;
Abstract Title: Anodal tDCS over Posterior Parietal Cortex Enhances Visual Working Memory Capacity through Filtering of Distractors

Abstract ID: 12991

Authors: Presenting Author - Sisi Wang; Co-Author - Yixuan KY. Ku, Ph.D.;

Topic: tDCS

Abstract Title: Synthesis of Focal Deep Transcranial Magnetic Stimulation (fdTMS) Coils

Abstract ID: 12994

Authors: Presenting Author - Luis Gomez, PhD; Co-Author - Angel V. Peterchev, PhD; Co-Author - Stefan Goetz, PhD;

Topic: Engineering

Abstract Title: Effects of Transcranial Direct Current Stimulation over Prefrontal Cortex for Decision Making During Approach-Avoidance Conflict

Abstract ID: 12996

Authors: Presenting Author - Evangelia G. Chrysikou; Co-Author - Claire Gorey; Co-Author - Robin L. Aupperle;

Topic: Clinical Psychiatric Applications

Abstract Title: tDCS as a Potential Intervention to Improve Empathy and Reduce Violent Behavior: A Literature Review

Abstract ID: 12997

Authors: Presenting Author - Carmen C. Sergiou, 19522176, MSc; Co-Author - Emiliano Santarnecchi, PhD; Co-Author - Ingmar H. Franken; Co-Author - Josanne J. van Dongen, PhD.;

Topic: tDCS

Abstract Title: Is it possible to dose TMS for depression using the motor threshold of the sternocleidomastoid?

Abstract ID: 12998

Authors: Presenting Author - Aron Tandler, MD; Co-Author - Elyssa Sisko, BA, CCRC; Co-Author - Shannan M. Garrison, BHS; Co-Author - Daria Mages; Co-Author - Hannah Mayfield, BS, BS; Co-Author - Jacqulynn Sutton, BA, BS; Co-Author - Noelia Rodriguez;
**Topic:** TMS

**Abstract Title:** Paradoxical motor response induced by closed-loop stimulation in the rat model of Parkinson disease

**Abstract ID:** 13000

**Authors:** Co-Author - Ivan Cordon, PhD Neuroscience; Co-Author - María Jesús Nicolás; Co-Author - Sandra S. Arrieta; Co-Author - Manuel Alegre, Md PhD; Co-Author - Julio Artieda; Presenting Author - Miguel Valencia Ustárroz;

**Topic:** Deep Brain Stimulation (DBS)

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**Abstract Title:** Non-invasive neural stimulation: Understanding outcomes as if all the neurophysiology mattered: the case for interoception

**Abstract ID:** 13003

**Authors:** Presenting Author - Tessa G. Eagle; Co-Author - Gina Distefano; Co-Author - Durga Sahithi Garikapati, MSc; Co-Author - Melissa Nollstadt; Co-Author - Julia Brock; Co-Author - Sean Hagberg, PhD;

**Topic:** Non invasive Cranial / Vagus Nerve Stim
**Poster Session 2: Sunday, August 26, 2018**

**Abstract Title:** BDNF polymorphism predicts plasticity in motor cortex following continuous theta burst stimulation

**Abstract ID:** 13005

**Authors:** Abstract Organizer - Laura DeLoretta; Presenting Author - Denise Y. Harvey, PhD; Co-Author - Rachel Wurzman, PhD; Co-Author - Daniela L. Sacchetti, MS; Co-Author - Ahmed M. Ahmed, BS; Co-Author - Abdou Thiam, MSc; Co-Author - Falk Lohoff; Co-Author - Olufunsho Faseyitan, MS; Co-Author - Roy H. Hamilton, MD;

**Topic:** TMS

**Abstract Title:** Asynchrony Dependency of Paired Associative Stimulation Effects on Interregional Connectivity

**Abstract ID:** 13010

**Authors:** Presenting Author - Julio C. Hernandez-Pavon, Ph.D., D.Sc.; Co-Author - Nils Schneider-Garces, M.Sc.; Co-Author - John P. Begnoche, m.s.; Co-Author - Tommi A. Raij, Ph.D., MD;

**Topic:** TMS

**Abstract Title:** Subthalamic Neural Closed-loop Deep Brain Stimulation for Bradykinesia in Parkinson's Disease

**Abstract ID:** 13012

**Authors:** Presenting Author - Muhammad Furqan Afzal, MS; Co-Author - Anca Velisar, 2456907, MS; Co-Author - Chioma Anidi, BA; Co-Author - Raumin Neuville, BS; Co-Author - Varsha Prabhakar, 3324058, BA; Co-Author - Helen M. Bronte-Stewart, MD MSE (PI);

**Topic:** Deep Brain Stimulation (DBS)

**Abstract Title:** Lost in Space and Time: a Systematic Framework for Selecting TMS Parameters and Predicting Effects

**Abstract ID:** 13013

**Authors:** Presenting Author - Brian Erickson, Ph.D.; Co-Author - John D. Medaglia, PhD;

**Topic:** Combining Brain Simulation with Imaging
Abstract Title: Rapid Field Mapping using Magnetic Resonance Imaging during Transcranial Direct Current Stimulation

Abstract ID: 13015

Authors: Presenting Author - A. Duke Shereen, PhD; Co-Author - Lucas Parra, PhD;

Topic: Combining Brain Simulation with Imaging
**Abstract Title:** Optimizing Localization of Temporal Interference Stimulation Effects in a Spherical Head Model

**Abstract ID:** 13016

**Authors:** Co-Author - Kimia Shayestehfard, Master; Presenting Author - Biel Roig-Solvas; Co-Author - Sumientra Rampersad, PhD; Co-Author - Mat Yarossi; Co-Author - Moritz Dannhauer; Co-Author - Dana H. Brooks, PhD;

**Topic:** Modeling of Brain Stimulation Methods

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**Abstract Title:** Dry tDCS: Tolerability of a novel multilayer hydrogel composite non-adhesive electrode for tDCS.

**Abstract ID:** 13020

**Authors:** Presenting Author - Niranjan Khadka; Co-Author - Helen Borges; Co-Author - Adantchede L. Zannou, BE; Co-Author - Jongmin Jang; Co-Author - Byungjik Kim; Co-Author - Kiwon Lee; Co-Author - Marom Bikson, PhD;

**Topic:** tDCS

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**Abstract Title:** Trends in utilization of Spinal Cord Stimulators from 2003-2013: A Nationwide Study

**Abstract ID:** 13021

**Authors:** Presenting Author - Sahil Gupta, MD; Co-Author - Salim Ghazi, MD;

**Topic:** SCS

---

**Abstract Title:** Temporal Interference Transcranial Electrical Stimulation in Humans: Actual Doses and Steerability

**Abstract ID:** 13023

**Authors:** Presenting Author - Sergei Turovets; Co-Author - Mariano Fernandez Corazza, PhD; Co-Author - Don Tucker; Co-Author - Phan Luu, Ph.D.;

**Topic:** Modeling of Brain Stimulation Methods

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**Abstract Title:** Non-Invasive Brain Stimulation Affects Cytosolic and Synaptic Proteomics in Rat Hippocampus

**Abstract ID:** 13024
Authors: Presenting Author - Candice Hatcher-Solis, PhD; Co-Author - Seung Jung, PhD; Co-Author - Anthony Qualley; Co-Author - Mark P. Jackson, MS; Co-Author - Raquel J. Moore; Co-Author - Naomi Bechmann, BA, RVT, LATg; Co-Author - Ryan Jankord;

Topic: tDCS

Abstract Title: tDCS AND COGNITIVE TRAINING ENHANCE VISUOSPATIAL PROCESSING IN NEUROFIBROMATOSIS TYPE 1: A PILOT STUDY

Abstract ID: 13027

Authors: Presenting Author - Gorana Pobric; Co-Author - Johan Hulleman; Co-Author - JeYoung Jung, PhD; Co-Author - Shruti S. Garg, MBBS, MRCPsych, PhD;

Topic: tDCS
**Abstract Title:** Remotely-Supervised Non-Invasive Brain Stimulation for Remediation of Fatigue in Parkinson’s Patients

**Abstract ID:** 13029

**Authors:** Co-Author - Kush Sharma, MD; Co-Author - Shashank Agarwal, MD; Co-Author - Daniella F. Mania, MS; Co-Author - Hamzeh A. Migdadi; Co-Author - Bryan Dobbs, 9414960; Co-Author - Michael Shaw; Co-Author - Leigh E. Charvet, PhD; Presenting Author - Milton C. Biagioni, MD;

**Topic:** Clinical Neurological Applications

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**Abstract Title:** Concurrent HD-tDCS/fMRI Study Exploring Changes In Motor Network Physiology And Complexity

**Abstract ID:** 13030

**Authors:** Presenting Author - Stephanie Lefebvre, PhD; Co-Author - Kay Jann, PhD; Co-Author - Allie N. Schmiesing, OTS; Co-Author - Kaori L. Ito; Co-Author - Mayank Jog; Co-Author - Nicolas Schweighofer; Co-Author - Danny J.J. Wang, PhD; Co-Author - Sook-Wei Liew, PhD;

**Topic:** Combining Brain Simulation with Imaging

---

**Abstract Title:** Aerobic Exercise and repetitive Transcranial Magnetic Stimulation in Parkinson’s disease: Exploring Potential Plasticity Biomarkers

**Abstract ID:** 13031

**Authors:** Co-Author - Sahshank Agarwal, MD; Co-Author - Hamzeh A. Migdadi; Co-Author - Hoau-Yan Wang; Co-Author - Alberto Cucca, MD; Co-Author - Kush Sharma, MD; Co-Author - Cecilia Fontanesi, M.S./M.Phil.; Presenting Author - Milton C. Biagioni, MD;

**Topic:** Clinical Neurological Applications

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**Abstract Title:** Transcranial Neurostimulation and Swallowing - Contributions to the Rehabilitation of Oropharyngeal Dysphagia

**Abstract ID:** 13032

**Authors:** Presenting Author - Henrique Porto;

**Topic:** tDCS

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**Abstract Title:** Using BurstDR to Salvage Loss of Efficacy in Dorsal Column Spinal Cord Stimulation

**Abstract ID:** 13034
Authors: Presenting Author - Ajax Yang, MD; Co-Author - Madhavi D. Patel, NP; Co-Author - Corey W. Hunter, MD FIPP;

Topic: Novel Neuromodulation Techniques

Abstract Title: Tolerability of an Adaptive-tDCS upto 4 mA using subject assessment and machine-learning to optimize dose.

Abstract ID: 13035

Authors: Presenting Author - Niranjan Khadka; Co-Author - Helen Borges; Co-Author - Trynia Kauffman; Co-Author - Alain Pascal; Co-Author - Bhaskar Paneri; Co-Author - Electra Nassis; Co-Author - Yungjae Shin; Co-Author - Hyeongseob Choi; Co-Author - Seonghoon Kim; Co-Author - Kiwoon Lee; Co-Author - Marom Bikson, PhD;

Topic: tDCS
Abstract Title: Ephaptic coupling, a mechanism for spontaneous neural propagation in the brain

Abstract ID: 13036

Authors: Presenting Author - Rajat S. Shivacharan; Co-Author - Chia-Chu Chiang, PhD; Co-Author - Dominique M. Durand, PhD;

Topic: Basic Neuroscience and Neurophysiology

Abstract Title: Scalp Cooling to Enhance the Effects of tDCS on Excitability

Abstract ID: 13037

Authors: Presenting Author - Pedro Lucena; Co-Author - Kamyle Castro; Co-Author - Lázaro Curvelo, 988392721, Student Doctor/medical; Co-Author - João Parente, Medical student; Co-Author - Iasmyn Fernandes; Co-Author - Iago O. De Oliveira Gomes, 991456897; Co-Author - João J. Fernandes; Co-Author - Janine J. Camatti; Co-Author - Abrahão Baptista; Co-Author - Pedro Carneiro; Co-Author - Henrique Sales; Co-Author - Giulia Armani-Franceschi; Co-Author - Rita Lucena; Co-Author - João Zugaib, 996873865;

Topic: tDCS

Abstract Title: Transcranial Direct Current Stimulation (tDCS) in Cerebral Palsy: Open-label Safety and Feasibility Study

Abstract ID: 13039

Authors: Co-Author - Leon Morales-Quezada, 3297080, MD, PhD.; Co-Author - Mirret El-Hagrassy; Co-Author - Cristina Russo; Co-Author - Ana Luiza Zaninotto, PhD; Presenting Author - Camila Bonin Pinto; Co-Author - Felipe Fregni;

Topic: tDCS

Abstract Title: Recruitment Challenges in Infant Stroke and Non-Invasive Brain Stimulation Research: Demographics and Factors

Abstract ID: 13041

Authors: Presenting Author - Jesse L. Kowalski, PT, DPT; Co-Author - Samuel T. Nemanich, PhD; Co-Author - Raghavendra Rao, MD; Co-Author - Michael Georgieff, 6260644, MD; Co-Author - Jeremiah Menk, MS; Co-Author - Kyle Rudser, PhD, MS, BA; Co-Author - Bernadette Gillick, PhD PT MSPT;

Topic: Complications
Abstract Title: Software for Rapid High-Resolution Modeling of Transcranial Magnetic Stimulation Cases with the Fast Multipole Method

Abstract ID: 13044

Authors: Presenting Author - Gregory Noetscher; Co-Author - Sergey N. Makarov, Dr Sci; Co-Author - Aapo Nummenmaa;

Topic: TMS

Abstract Title: Individualized Modeling for Subjects with Primary Progressive Aphasia

Abstract ID: 13047

Authors: Presenting Author - Gozde Unal, MSc.; Co-Author - Bronte N. Ficek; Co-Author - Kimberly T. Webster, M.A., M.S.; Co-Author - Syed Shahabuddin; Co-Author - Dennis Q. Truong, MS; Co-Author - Marom Bikson, PhD; Co-Author - Kyrana Tsapkini;

Topic: tDCS
Abstract Title: Rapidly reversible behavioral arrest during fasciculus retroflexus deep brain stimulation in a healthy non-human primate

Abstract ID: 13048

Authors: Presenting Author - Jonathan L. Baker, PhD;

Topic: Basic Neuroscience and Neurophysiology

Abstract Title: Effects of electrical stimulation on maladaptive plasticity in hemifacial spasm

Abstract ID: 13051

Authors: Presenting Author - Dian Zeng; Co-Author - Camila Bonin Pinto; Abstract Organizer - Felipe Fregni; Abstract Organizer - Jianhua Liu, MD;

Topic: Peripheral Nerve Stimulation

Abstract Title: What is Theoretically More Focal: HD-tDCS or TMS?

Abstract ID: 13052

Authors: Co-Author - Jimmy Jiang, BSc; Presenting Author - Dennis Q. Truong, MS; Co-Author - Marom Bikson, PhD;

Topic: tDCS

Abstract Title: Differential tDCS Modulation of Rodent Behavioral Performance in a Time-dependent and Task-specific Manner

Abstract ID: 13055

Authors: Presenting Author - Mark P. Jackson, MS; Co-Author - Naomi Bechmann, BA, RVT, LATg; Co-Author - Raquel J. Moore; Co-Author - Ryan Jankord;

Topic: Cognitive and Affective Neuroscience

Abstract Title: Therapeutic Window and Mechanisms of Anodal tDCS in a Mouse Model of Traumatic Brain Injury

Abstract ID: 13056

Authors: Co-Author - Olga A. Bragina; Co-Author - Edwin M. Nemoto; Presenting Author - Denis E. Bragin, PhD;

Topic: tDCS
**Abstract Title:** Management of Trigeminal Autonomic Cephalgia with Cranial PNS/PFNS

**Abstract ID:** 13058

**Authors:** Co-Author - Pouya Entezami, MD; Co-Author - Roy Hwang, MD; Presenting Author - Vishad Sukul, MD;

**Topic:** Neuromodulation for Headaches
**Abstract Title:** Simulations of temporal interference tCS in a realistic head model

**Abstract ID:** 13059

**Authors:** Presenting Author - Sumientra Rampersad, PhD; Co-Author - Kimia Shayestehfard, Master; Co-Author - Biel Roig-Solvas; Co-Author - Mathew Yarossi, 6176101; Co-Author - Dana H. Brooks, PhD;

**Topic:** Modeling of Brain Stimulation Methods

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**Abstract Title:** Changes in high frequency activity depend on frequency of electrical stimulation in the human cortex

**Abstract ID:** 13060

**Authors:** Presenting Author - Uma R. Mohan; Co-Author - Michael R. Sperling, MD; Co-Author - Ashwini D. Sharan, MD; Co-Author - greg worrell, 2841599, MD; Co-Author - Brent Berry, MDPHD; Co-Author - Bradley Lega, MD; Co-Author - Barbara C. Jobst, MD PhD; Co-Author - Kathryn Davis, 3495166, MD; Co-Author - Robert E. Gross, MD, PhD; Co-Author - Sameer A. Sheth, MD, PhD; Co-Author - Sandhitsu Das, MD; Co-Author - Joel M. Stein, MD, PhD; Co-Author - Richard Gorniak, MD; Co-Author - Daniel Rizzuto, PhD; Co-Author - Michael J. Kahana, PhD; Co-Author - Joshua Jacobs, PhD;

**Topic:** Deep Brain Stimulation (DBS)

---

**Abstract Title:** Transcranial electrical stimulation models using an emulated-CSF value approximate the meninges more accurately.

**Abstract ID:** 13062

**Authors:** Presenting Author - Jimmy Jiang, BSc; Co-Author - Dennis Q. Truong, MS; Co-Author - Yu Huang, PhD; Co-Author - Lucas Parra, PhD; Co-Author - Marom Bikson, PhD;

**Topic:** tDCS

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**Abstract Title:** Polarity-dependent effects on postural control after High-definition Transcranial Direct Current Stimulation over the temporo-parietal junction

**Abstract ID:** 13068

**Authors:** Co-Author - Diandra B. Favoretto, MD; Co-Author - Eduardo Bergonzoni; Co-Author - Diego Nascimento; Co-Author - Brunna Rimoli; Co-Author - Tenysson Will-Lemos, 33154415; Co-Author - Dennis Q. Truong, MS; Co-Author - Renato Moraes; Co-Author - Francisco Dr. Louzada, PhD; Co-Author - Joao Leite; Co-Author - Marom Bikson, PhD; Co-Author - Dylan J. Edwards, PhD; Presenting Author - Taiza EG. Santos;

**Topic:** tDCS
Abstract Title: Prospective tractography-aided VIM targeting during HIFU: long-term outcomes

Abstract ID: 13069

Authors: Presenting Author - FRANCESCO SAMMARTINO, MD; Co-Author - Punit Agrawal, DO; Co-Author - Barbara Changizi; Co-Author - Eric C. Bourekas, MD, MBA, FACR; Co-Author - Michael V. Knopp, MD; Co-Author - Ali Rezai, MD; Co-Author - Vibhor Krishna, MD, SM;

Topic: Novel Neuromodulation Techniques

Abstract Title: Automated prediction of optimal stimulation settings in STN DBS for PD

Abstract ID: 13071

Authors: Presenting Author - FRANCESCO SAMMARTINO, MD; Co-Author - Vibhor Krishna, MD, SM; Co-Author - Qinwan Rabbani; Co-Author - Barbara Changizi; Co-Author - Punit Agrawal, DO; Co-Author - Milind Deogaonkar, MD; Co-Author - Michael V. Knopp, MD; Co-Author - Nicole A. Young, PhD; Co-Author - Ali Rezai, MD;

Topic: Combining Brain Simulation with Imaging
Abstract Title: Stage 1 DCS Placement in a Patient with Local Anesthetic Allergy and Hypokalemic Periodic Paralysis

Abstract ID: 13073

Authors: Presenting Author - Natasa Grancaric; Co-Author - P. Sebastian Thomas, MD;

Topic: SCS

Abstract Title: Pedunculopontine Nucleus Stimulation as Adjunctive Therapy in Intractable Epilepsy: A Novel Deep Brain Stimulation Target

Abstract ID: 13078

Authors: Presenting Author - Harinder Jaseja;

Topic: Novel Neuromodulation Techniques

Abstract Title: Effects of active and sham tDCS on lexical decision in three persons with chronic aphasia

Abstract ID: 13086

Authors: Presenting Author - Rachael M. Harrington, Ph.D. CCC-SLP; Co-Author - Simone R. Roberts, M.A.; Co-Author - Lisa C. Krishnamurthy, Ph.D.; Co-Author - Venkatagiri Krishnamurthy, Ph.D.; Co-Author - Amy D. Rodriguez, Ph.D.; Co-Author - Keith M. McGregor, Ph.D.; Co-Author - Marcus Meinzer, PhD; Co-Author - Bruce Crosson, Ph.D.;

Topic: tDCS

Abstract Title: A Hebbian Framework for Predicting Modulation of Synaptic Plasticity with tDCS

Abstract ID: 13089

Authors: Presenting Author - Greg Kronberg, MS; Co-Author - Asif Rahman; Co-Author - Marom Bikson, PhD; Co-Author - Lucas Parra, PhD;

Topic: tDCS

Abstract Title: Attenuation of Pathological EEG features in Nonatal Electroclinical Syndromes: HD-tDCS in Catastrophic Epilepsies

Abstract ID: 13091

Authors: Presenting Author - Oded Meiron, Ph.D.; Co-Author - Rena Gale Gale; Co-Author - Julia Namestnic; Co-Author - Odeya Bennet-Back; Co-Author - Jonathan David; Co-Author - Nigel Gebodh; Co-Author - Devin Adair, B.A.; Co-Author - Zeinab Esmaeilpour, MS; Co-Author - Marom Bikson, PhD;
**Topic**: Clinical Neurological Applications

**Abstract Title**: How to Modulate Cognition with Cranial Nerve Stimulation?

**Abstract ID**: 13094

**Authors**: Presenting Author - Devin Adair, B.A.; Co-Author - Dennis Q. Truong, MS; Co-Author - Libby Ho; Co-Author - Bashar W. Badran, Ph.D.; Co-Author - Helen Borges, MS; Co-Author - Marom Bikson, PhD;

**Topic**: Non invasive Cranial / Vagus Nerve Stim
Abstract Title: Failure Of Conventional Signal Processing Techniques To Remove “Physiological” Artifacts From EEG During tDCS

Abstract ID: 13096

Authors: Presenting Author - Nigel Gebodh; Co-Author - Zeinab Esmaeilpour, MS; Co-Author - Devin Adair; Co-Author - Kenneth Chelette; Co-Author - Jacek Dmochowski, PhD; Co-Author - Lucas Parra, PhD; Co-Author - Adam J. Woods, PhD; Co-Author - Emily S. Kappenman, PhD; Co-Author - Marom Bikson, PhD;

Topic: tDCS

Abstract Title: Cocktail of virtual reality, motion capture, mirror therapy for long-lasting analgesia: prospective, randomized clinical trial

Abstract ID: 13097

Authors: Co-Author - Kyo-in Koo, PhD; Presenting Author - Chang Ho Hwang, M.D., Ph.D.;

Topic: Novel Neuromodulation Techniques

Abstract Title: Closed-loop apparatus for brain state-dependent tES: a proof of principle based on SMR

Abstract ID: 13098

Authors: Presenting Author - Eliana Garcia Cossio, PhD; Co-Author - Klaus Schellhorn, Dipl.-Ing.; Co-Author - Sophia Wunder, MSc.;

Topic: Combining Brain Simulation with Imaging

Abstract Title: Effects of Transdermal Vagal Nerve Stimulation (tVNS) on Attention and Arousal

Abstract ID: 13099

Authors: Presenting Author - Richard A. McKinley, Ph.D.; Co-Author - Brad Minnery, Ph.D.; Co-Author - Lindsey K. McIntire, M.S.; Co-Author - Justin Nelson, Ph.D.; Co-Author - Chuck Goodyear, M.S.;

Topic: VNS

Abstract Title: Neuromodulation of Axon Terminals

Abstract ID: 13102

Authors: Presenting Author - Hanoch Kaphzan, MD, PhD, MPH; Co-Author - Sreerag Othayoth Vasu;

Topic: Basic Neuroscience and Neurophysiology
Abstract Title: Neuro-muscular Strengthening by End-effector Gait Robot through Rapid Brain and Spinal Plasticity

Abstract ID: 13103

Authors: Presenting Author - Chang Ho Hwang, M.D., Ph.D.;

Topic: Novel Neuromodulation Techniques
Abstract Title: Transcranial Magnetic Stimulation Pattern Mimicking Thalamic Burst Reduces Nociceptive Responses in Mice

Abstract ID: 13104

Authors: Co-Author - Yeowool Huh; Presenting Author - Jeiwon Cho;

Topic: Basic Neuroscience and Neurophysiology

Abstract Title: Non-Invasive Cervical Root Stimulation to Facilitate Corticospinal Transmission

Abstract ID: 13109

Authors: Co-Author - Yu-Kuang Wu; Co-Author - Sana Saeed, BS; Co-Author - Matthew T. Maher, MS, CEP; Co-Author - Eric Bailey, BS; Co-Author - James M. LiMonta, BS; Co-Author - Jasmeen Hussain, BS; Co-Author - Jonah M. Levine, BA; Co-Author - Jill M. Wecht, EdD; Co-Author - Jason B. Carmel, MD, PhD; Presenting Author - Noam Y. Harel, MD, PhD;

Topic: SCS

Abstract Title: Without Blinking an Eye: Proactive Motor Control Enhancement

Abstract ID: 13111

Authors: Presenting Author - Asaf Yaniv, PhD; Co-Author - Michal Lavidor, PhD;

Topic: tDCS

Abstract Title: Noninvasive Neurostimulation in Motor Disorders and Pain: Challenges from Research to Rehabilitation

Abstract ID: 13112

Authors: Presenting Author - Cyril Schneider, PhD;

Topic: TMS

Abstract Title: Chronic Vagus Nerve Stimulation Enables Long-term Plasticity in Mouse Auditory Cortex

Abstract ID: 13114

Authors: Presenting Author - Eleni S. Papadoyannis, BS; Co-Author - Kathleen A. Martin, BS; Co-Author - Jennifer K. Schiavo, BS; Co-Author - Nesibe Z. Temiz, MS; Co-Author - Robert C. Froemke, PhD;

Topic: VNS
Abstract Title: Directional Local Field Potentials Recorded from Ventral Capsule/Ventral Striatum in Obsessive-Compulsive Disorder

Abstract ID: 13115

Authors: Presenting Author - Ilknur Telkes, MSc, PhD; Co-Author - Roy Hwang, MD; Co-Author - Jennifer Durphy, MD; Co-Author - Octavian Adam, MD; Co-Author - Julie G. Pilitsis, MD, PhD;

Topic: Deep Brain Stimulation (DBS)
Abstract Title: Characterization of tACS parameters to optimize the increase of EEG alpha power

Abstract ID: 13116

Authors: Presenting Author - Béatrice P. Koninck, 9662843, B.Sc; Co-Author - Samuel Guay; Co-Author - Lea Proulx-Begin, B.Sc; Co-Author - Ian Massé; Co-Author - Louis De Beaumont, PhD;

Topic: tACS

Abstract Title: No Longer a Toy: Low Cost Wireless EEG/ERP at Scale in Neuroscience Research & Teaching

Abstract ID: 13117

Authors: Presenting Author - Graeme Moffat, PhD; Co-Author - Nicole Proulx, MASc.; Co-Author - Hubert Banville, M.Sc.; Co-Author - Jonathan Bhaskar, M.Sc.;

Topic: EEG

Abstract Title: EEG Beta-band Coherence for Prognosis of Motor Recovery in Stroke Patients with tDCS-BCI Intervention

Abstract ID: 13119

Authors: Presenting Author - VIKRAM SHENOY HANDIRU; Co-Author - Cuntai Guan, 2159, PhD; Co-Author - Kai Keng Ang, PhD; Co-Author - Effie Chew;

Topic: tDCS

Abstract Title: The effect of tDCS on Cognitive Function of Older Adults with HIV

Abstract ID: 13120

Authors: Presenting Author - Shantanu Baghel; Co-Author - Raymond L. Ownby, MD, PhD;

Topic: tDCS

Abstract Title: tDCS in Post Firearm Brain Injury - Case Report

Abstract ID: 13121

Authors: Presenting Author - João Batista; Co-Author - Henrique Porto;

Topic: tDCS
Abstract Title: Optimal stimulation parameters for short and long interhemispheric inhibition

Abstract ID: 13122

Authors: Presenting Author - Michel Belyk, Ph.D.; Co-Author - Deryk S. Beal, PhD, Reg. CASLPO, CCC-SLP;

Topic: TMS
**Abstract Title:** HD-tDCS Effect on Motor Evoked Potential Amplitude Elicited by Neuronavigated TMS

**Abstract ID:** 13123

**Authors:** Presenting Author - Egas Caparelli-Daquer, MD, PhD; Co-Author - Sidario R. Malheiros-Junior; Co-Author - Dylan J. Edwards, PhD; Co-Author - Talita Ms. Reis; Co-Author - Claudia F. Machado, D.Sc.; Co-Author - Heloisa Alves, Ph.D.;

**Topic:** tDCS

**Abstract Title:** Quantitative Differences in White Matter Connections of DBS contacts and Clinical Outcome in Parkinson Disease

**Abstract ID:** 13126

**Authors:** Presenting Author - Victoria E. Ragland; Co-Author - Javier Arnedo, PhD; Co-Author - Marucela J. Uscamayta Ayvar, MSc; Co-Author - Juan Toranzo, MSc; Co-Author - Alberto Castro Molina; Co-Author - Gabriel A. de Erausquin, MD, PhD, MSc;

**Topic:** Deep Brain Stimulation (DBS)

**Abstract Title:** Adaptive Deep Brain Stimulation for Parkinson’s Disease: Safety and Effectiveness.

**Abstract ID:** 13129

**Authors:** Presenting Author - Sara Marceglia, PhD; Co-Author - Marco Prenassi; Co-Author - Alberto Priori, MD PhD;

**Topic:** Deep Brain Stimulation (DBS)

**Abstract Title:** The Boy in the Bucket: Sensory Treatment with tDCS in Autistic Spectrum Disorder

**Abstract ID:** 13130

**Authors:** Presenting Author - Henrique Porto; Co-Author - João Batista;

**Topic:** tDCS

**Abstract Title:** Translational Neuromodulation of Motor-Output Using Trans-spinal Direct Current Stimulation (tsDCS) in a Large Animal Model

**Abstract ID:** 13131

**Authors:** Presenting Author - Preston Williams, PhD; Co-Author - John Brandenburg; Co-Author - Dennis Q. Truong, MS; Co-Author - Alan C. Seifert, Ph.D.; Co-Author - Adrish Sarkar; Co-Author - Junqian Xu, PhD; Co-Author - Marom Bikson, PhD; Co-Author - John Martin, PhD;
Topic: SCS

Abstract Title: Development of Surface EMG Triggered Closed-loop Stimulation for Individuals with Spinal Cord Injury

Abstract ID: 13133

Authors: Presenting Author - Yu-Kuang Wu; Co-Author - Sana Saeed, BS; Co-Author - James M. LiMonta, BS; Co-Author - Eric Bailey, BS; Co-Author - Matthew T. Maher, MS, CEP; Co-Author - Noam Y. Harel, MD, PhD;

Topic: Novel Applications
Abstract Title: Opioid Induced Hyperalgesia with Intrathecal Infusion of High Dose Fentanyl

Abstract ID: 13134

Authors: Presenting Author - Fadi Farah, MD; Co-Author - Antranig Kalaydjian; Co-Author - Yuen Cheng, 6288860; Co-Author - Martin A. Acquadro, MD, DMD, FACP, FACP; Co-Author - Frederic J. Gerges, MD;

Topic: Intrathecal Therapy

Abstract Title: Effects of conventional and high-definition tDCS on the Optokinetic Nystagmus in healthy subjects

Abstract ID: 13135

Authors: Presenting Author - Fabiano M. Peixoto; Co-Author - Angela Bonsu; Co-Author - Joao Leite; Co-Author - Dylan J. Edwards, PhD; Co-Author - Adolfo Bronstein, MD PhD FANA FRCP; Co-Author - Taiza EG. Santos; Co-Author - Qadeer Arshad;

Topic: tDCS

Abstract Title: Neuromodulation through Breathing Control

Abstract ID: 13136

Authors: Presenting Author - JOSE L. HERRERO; Co-Author - Stephan Bickel, MD, PhD; Co-Author - Ashesh Mehtah;

Topic: Basic Neuroscience and Neurophysiology

Abstract Title: High-Dose Adaptive Transcranial Direct Current Stimulation for Treatment Resistant Depression: Early Demonstration of Feasibility

Abstract ID: 13137

Authors: Presenting Author - Nicholas T. Trapp, M.D.; Co-Author - Willa Xiong, M.D.; Co-Author - Britt M. Gott, M.S.; Co-Author - Gemma D. Espejo, M.D.; Co-Author - Marom Bikson, PhD; Co-Author - Charles R. Conway, M.D.;

Topic: tDCS

Abstract Title: BDNF Genotype and tDCS Interaction in Aphasia Therapy

Abstract ID: 13138
Authors: Presenting Author - Julius Fridriksson, PhD; Co-Author - Jordan Elm, PhD; Co-Author - Brielle C. Stark, PhD; Co-Author - Alexandra Basilakos, PhD; Co-Author - Chris Rorden, PhD; Co-Author - Souvik Sen, MD MPH; Co-Author - Mark George, 8765142, MD; Co-Author - Leonardo Bonilha, MD PhD; 

Topic: tDCS

Abstract Title: Delta-Beta Coupling and Child Emotion Regulation during a Delay of Gratification Task

Abstract ID: 13140

Authors: Presenting Author - Sarah Myruski, PhD; Co-Author - Samantha Denefrio, MA; Co-Author - Boyang Fan; Co-Author - Charlene Minaya; Co-Author - Rohini Bagrodia; Co-Author - Jenny Ha; Co-Author - Alex Montesinos; Co-Author - Tracy A. Dennis-Tiwary, PHD; 

Topic: EEG
Abstract Title: Effects of High Definition tDCS on Problem Solving Networks

Abstract ID: 13141

Authors: Presenting Author - Carola Salvi, PhD; Co-Author - Ryan D. Conrardy, Bachlors of Arts; Co-Author - Marom Bikson, PhD; Co-Author - Mark Beeman, PhD; Co-Author - Jordan Grafman, Ph.D.;

Topic: Cognitive and Affective Neuroscience

Abstract Title: Responsive Neurostimulation for Non-Lesional Multifocal Epilepsy in Children

Abstract ID: 13147

Authors: Co-Author - Malgosia Kokoszka, PhD; Co-Author - Steven Wolf, MD; Co-Author - Patty McGoldrick, NP; Co-Author - Steven Wolf, MD; Co-Author - Lara Marcuse, MD; Co-Author - Madeline Fields, MD; Presenting Author - Saadi Ghatan, MD;

Topic: Clinical Neurological Applications

Abstract Title: Virtual Reality (VR) to Improve Quality of Life in Patients Diagnosed with Neurological Disorders

Abstract ID: 13150

Authors: Presenting Author - Maria J. Palmeri; Co-Author - Michael Shaw; Co-Author - Bryan Dobbs, 9414960; Co-Author - Danielle D. Ladensack; Co-Author - Leigh E. Charvet, PhD;

Topic: Novel Applications

Abstract Title: Empirically Supported Methods for Decreasing Impedance in High-Definition Transcranial Direct Current Stimulation

Abstract ID: 13152

Authors: Presenting Author - Julia M. Laing, BA; Co-Author - Annalise Rahman-Filipiak, Ph.D; Co-Author - Benjamin M. Hampstead, Ph.D, ABPP/CN;

Topic: tDCS

Abstract Title: Stimulation of the Prefrontal Cortex Reduces Intentions to Commit Aggression: A Randomized Clinical Trial

Abstract ID: 13154

Authors: Abstract Organizer - Laura DeLoretta; Co-Author - Olivia Choy, Ph.D.; Co-Author - Adrian Raine, Ph.D.; Presenting Author - Roy H. Hamilton, MD;
Abstract Title: Verifying Blinding Procedures for Clinical Trials with Long-Term tDCS Delivered at Home

Abstract ID: 13155

Authors: Presenting Author - Bryan Dobbs, 9414960; Co-Author - Michael Shaw; Co-Author - Charles Feinberg; Co-Author - Danielle D. Ladensack; Co-Author - Maria J. Palmeri; Co-Author - Rhea Patel; Co-Author - Leigh E. Charvet, PhD;

Topic: tDCS
**Abstract Title:** MRI Neuroimaging Methods for tDCS: A methodological note on study design and parameter space

**Abstract ID:** 13156

**Authors:** Presenting Author - Zeinab Esmaeilpour, MS; Co-Author - Ahmed Duke Shereen; Co-Author - Marom Bikson, PhD; Co-Author - Hamed Ekhtiar, MD PhD;

**Topic:** Combining Brain Simulation with Imaging

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**Abstract Title:** Long-term Transcranial Direct Current Stimulation Treatment Paired with Adaptive Cognitive Training Leads to Clinical Benefit

**Abstract ID:** 13158

**Authors:** Presenting Author - Michael Shaw; Co-Author - Bryan Dobbs, 9414960; Co-Author - Danielle D. Ladensack; Co-Author - Maria J. Palmeri; Co-Author - Rhea Patel; Co-Author - Leigh E. Charvet, PhD;

**Topic:** tDCS

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**Abstract Title:** Miniature, Easy To Use, Disposable EEG For The Emergency Department And Other Points of Care

**Abstract ID:** 13159

**Authors:** Presenting Author - André A. Fenton; Co-Author - Samah Abdel-baki, MD;

**Topic:** Clinical Neurological Applications

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**Abstract Title:** Importance of Brain Volume on tDCS-induced Effects on GABA Levels

**Abstract ID:** 13161

**Authors:** Presenting Author - Amy E. Bouchard, MS; Co-Author - Maya Dickler, 9656565, PhD; Co-Author - Emmanuelle Renauld, MS; Co-Author - Christophe Lenglos, PhD; Co-Author - Francine Ferland, PhD; Co-Author - Jean Leblond, Ph. D.; Co-Author - Shirley Fecteau, PhD;

**Topic:** tDCS

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**Abstract Title:** A Case Series of Long-Term Remotely Supervised Transcranial Direct Current Stimulation in Neurological Disorder Comorbidities

**Abstract ID:** 13162

**Authors:** Co-Author - Ashley Clayton, MA; Co-Author - Michael Shaw; Co-Author - Kathleen Sherman; Co-Author - Bryan Dobbs, 9414960; Presenting Author - Leigh E. Charvet, PhD;
Abstract Title: Transcranial direct stimulation (tDCS) in pre-operative brain tumour subjects: preliminary testing

Abstract ID: 13163

Authors: Presenting Author - Liu Shi Gan; Co-Author - Stefan Lang; Co-Author - Nicholas Strzalkowski, PhD; Co-Author - Oury Monchi; Co-Author - Adam Kirton; Co-Author - John Kelly;

Topic: Clinical Neurological Applications
Abstract Title: Long Term Outcomes from a Remotely Supervised tDCS Trial for Symptom Management in Multiple Sclerosis

Abstract ID: 13165

Authors: Co-Author - Charles Feinberg; Co-Author - Maria J. Palmeri; Co-Author - Michael Shaw; Co-Author - Bryan Dobbs, 9414960; Co-Author - Lauren Krupp; Co-Author - Kathleen Sherman; Presenting Author - Leigh E. Charvet, PhD;

Topic: tDCS

Abstract Title: Sleep as a Predictor of tDCS Therapy Outcomes

Abstract ID: 13166

Authors: Presenting Author - Kyrana Tsapkini; Co-Author - Haley Wendt; Co-Author - Bronte N. Ficek; Co-Author - Kimberly T. Webster, M.A., M.S.; Co-Author - Constantine Frangakis; Co-Author - Adam P. Spira, Ph.D.;

Topic: tDCS

Abstract Title: Ultrasonic Modulation Of Sensory-Evoked Cortical Responses Revealed By Optical Imaging In Vivo

Abstract ID: 13170

Authors: Presenting Author - Jonathan A. Fishler, PhD; Co-Author - Iryna Gumenchuk, MD;

Topic: Transcranial Ultrasound

Abstract Title: Epidural Anesthesia to Effectively Manage Pain and Facilitate Rehabilitation in a Pediatric Case of CRPS

Abstract ID: 13171

Authors: Presenting Author - Goran Tubic, MD;

Topic: Novel Neuromodulation Techniques

Abstract Title: Individualized connectivity between rTMS targets and the subgenual cingulate is unrelated to antidepressant response

Abstract ID: 13174

Authors: Presenting Author - Shan H. Siddiqi, MD; Co-Author - Anne Weigand, PhD; Co-Author - Danielle Cooke; Co-Author - Alvaro Pascual-Leone; Co-Author - Michael D. Fox;
Abstract Title: Functional connectivity changes with targeted rTMS of the dorsal attention network in TBI-associated depression

Abstract ID: 13176

Authors: Presenting Author - Shan H. Siddiqi, MD; Co-Author - Nicholas T. Trapp, M.D.; Co-Author - Carl D. Hacker, MD, PhD; Co-Author - Timothy O. Laumann, MD, PhD; Co-Author - Sridhar Kandala; Co-Author - Xin Hong; Co-Author - Ludwig Trillo, MD; Co-Author - Pashtun Shahim, MD, PhD; Co-Author - Eric C. Leuthardt, 2297908, MD; Co-Author - Alexandre R. Carter, MD, PhD; Co-Author - David L. Brody, MD, PhD;

Topic: Clinical Psychiatric Applications
**Abstract Title:** Transcranial Magnetic Stimulation of Medial Prefrontal and Cingulate Cortices reduces Cocaine Self-Administration

**Abstract ID:** 13177

**Authors:** Presenting Author - Diana Martinez; Co-Author - Abraham Zangen, PhD; Co-Author - Frances R. Levin, MD; Co-Author - Richard Foltin; Co-Author - Edward Nunes; Co-Author - Jonathan Wai, MD; Co-Author - Derek Blevins, MD; Co-Author - Howard Levin;

**Topic:** TMS

**Abstract Title:** Direct Current Stimulation Promotes Reorganization of the Neurons

**Abstract ID:** 13178

**Authors:** Presenting Author - Viktoria Morozova, MS; Co-Author - Alejandra C. Alonso, Professor Biology Department; Co-Author - Zaghloul Ahmed, PhD;

**Topic:** Novel Applications

**Abstract Title:** Hardware suitable for electrophysiology and stimulation in kHz range

**Abstract ID:** 13180

**Authors:** Presenting Author - Mohamad FallahRad, MS; Co-Author - Louis Zannou; Co-Author - Niranjan Khadka; Co-Author - Steven A. Prescott; Co-Author - Stéphanie Ratté, PhD; Co-Author - Tianhe Zhang, PhD; Co-Author - Rosana Esteller, PhD; Co-Author - Brad Hershey, MS; Abstract Organizer - Marom Bikson, PhD;

**Topic:** Engineering

**Abstract Title:** A Retrospective Evaluation of Automated Optimization of Deep Brain Stimulation Settings

**Abstract ID:** 13203

**Authors:** Presenting Author - Johannes Vorwerk; Co-Author - Andrea A. Brock, MD; Co-Author - Daria N. Anderson, 2002878, MS; Co-Author - John D. Rolston, M.D., Ph.D.; Co-Author - Christopher R. Butson, Ph.D.;

**Topic:** Modeling of Brain Stimulation Methods

**Abstract Title:** Low Dose Naltrexone: A Viable Alternative for Long Term Chronic Pain?

**Abstract ID:** 13205
Authors: Presenting Author - Victor A. Rivera, MD; Co-Author - Joseph D. DeCicco, MD; Co-Author - Samuel G. Espiritu, DO;

Topic: Basic Neuroscience and Neurophysiology

Abstract Title: Effects of tDCS alone and combined with virtual reality in clinical practice

Abstract ID: 13206

Authors: Presenting Author - Milena MA. Artifon, Nutr.; Co-Author - Lauren Adachi, Adachi, L.N.S.; Co-Author - Pedro Schestatsky;

Topic: tDCS
Abstract Title: Wearable-Patch Sensor gated Closed-Loop Transcutaneous VNS in Patients with Posttraumatic Stress Disorder

Abstract ID: 13207

Authors: Presenting Author - J. Douglas Bremner;

Topic: Brain

Abstract Title: Combined tDCS and Motor Rehabilitation for Children with Unilateral Cerebral Palsy

Abstract ID: 13209

Authors: Presenting Author - Peter Simpson-Young, BS, BA; Co-Author - Alistair McEwan, PhD; Co-Author - Bernadette Gillick, PhD PT MSPT;

Topic: tDCS

Abstract Title: When stimulating the unaffected (healthy) hemisphere in stroke patients makes sense

Abstract ID: 13223

Authors: Presenting Author - Gottfried Schlaug, MD, PhD;

Topic: Plasticity of the Nervous System