

SUNDAY, SEPTEMBER 4: EDUCATIONAL COURSES

8:00-10:00 Course Information	Course 1.1a: #143 EEG in Infancy—Boot Camp	Course 1.1b: #116 Neuromuscular Aspects of Tropical Diseases	Course 1.1c: #58 Electrophysiological Evaluation of Plexopathies	Course 1.1d: #147 Intraoperative Motor Evoked Potential Monitoring: Challenges and Modern Concept	Course 1.1e: Presented by the Brain Stimulation SIG Session 1: Entrainment of Oscillatory Activity Within Large-Scale Neuronal Networks by Frequency-Modulated Neuromodulation and Memory Session 2: Overview of QPS: Past, Present and Future Session 3: Guideline for TUS (Transcranial Ultrasound Stimulation)
10:00-12:00 Course Information	Course 1.2a: #14 EEG Monitoring in Critically Ill Neonates and Children	Course 1.2b: #122 Electrophysiological Findings in Myelopathies of Various Etiologies, Especially in Patients with HTLV-1 Associated Myelopathy (HAM/TSP)	Course 1.2c: #166 How to Record, Analyze and Interpret Wide-Band EEG: Scalp and Invasive EEG in Epilepsy	Course 1.2d: #76 Intraoperative Monitoring of Spinal Surgery	
12:00-11:00	Break				
1:00 -3:00 Course Information	Course 1.3a: #148 Visual Electrophysiology in Children	Course 1.3b: #118 Hands-On Teaching Course on Axonal Excitability Studies and MScanFit MUNE	Course 1.3c: #27 Clinical Neurophysiology for Diagnosis of Movement Disorders	Course 1.3d: #138 Latest Developments in IONM Evidence, Methodological Recommendations, and Artificial Intelligence “Big Data” Digital Networks	Course 1.3e: #97 Modulating Deep Brain Structures with Temporal Interference Brain Stimulation
3:00-5:00 Course Information	Course 1.4a: #102 The Practice of Paediatric Electromyography	Course 1.4b: #68 Hands-On Teaching Course on Muscle Excitability Testing	Course 1.4c: #24 Advanced EEG Biomarkers in Patients with Dementia with Lewy Bodies	Course 1.4d: #105 Selective Dorsal Rhizotomy: Making the Cut	Course 1.4e: #86 Mathematical Tools in Neurophysiological Trials: Benefits and Risks

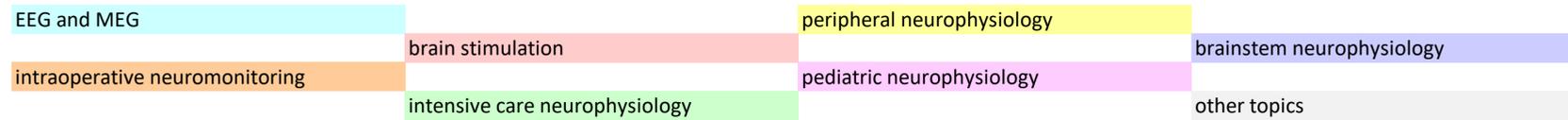
Educational / scientific tracks

EEG and MEG	peripheral neurophysiology
brain stimulation	brainstem neurophysiology
intraoperative neuromonitoring	pediatric neurophysiology
intensive care neurophysiology	other topics

MONDAY, SEPTEMBER 5: EDUCATIONAL COURSES

8:00-10:00	Course 2.1a: #121 Neurophysiologic Competency Certification Module for Ancillary Test Reporting in Determination of Death by Neurologic Criteria	Course 2.1b: #115 Unusual Motor Conduction Techniques Necessary for Atypical Cases in ENMG Practice	Session of the Education SIG Co-Chairs: Jonathan Cole; Nortina Shahrizaila	Course 2.1d: Advanced EEG/MEG Techniques SIG Get More out of Your Spikes: Advanced EEG Explained in Simple Terms	Course 2.1e: Presented by the Brainstem SIG Modulation of the Blink Reflex: Physiology and Clinical Applications	Course 2.1f: Brain Stimulation for Dummies: Part 1 Session 1: TMS Physics and Neurophysiological Mechanisms, Most Frequently Used Protocols and Their Usefulness Session 2: Physiological Background of tDCS and tACS Session 3: Ethical and Safety Aspects
10:00-12:00	Course 2.2a: #71 Clinical Neurophysiology for the Prognosis of Comatose Patients	Course 2.2b: #33 Ultrasound First in Neuromuscular Disorders; Up-to-Date Evidence of Practical Application	Course 2.2c: #37 Online Learning in Clinical Neurophysiology: Methods, Efficacy, Pitfalls	Course 2.2d: Advanced EEG/MEG Techniques SIG EEG/MEG Source Reconstruction		
12:00-11:00	Break					
1:00 -3:00	Course 2.3a: #119 Clinical-Electroencephalographic Correlation in Traumatic Brain Injury (TBI): Quantitative EEG in Endotyping Mild, Moderate and Severe TBI with Disorders of Consciousness	Course 2.3b: #117 The Neuromuscular Junction: Insights from Two Human Models of Presynaptic Dysfunction, Botulism and Chemodenervation with Botulinum Toxin	Course 2.3c: Presented by International Society of Neuromuscular Imaging (ISNI) Neuromuscular Ultrasound as a Complement to Electroneuromyography	Course 2.3d: Advanced EEG/MEG Techniques SIG Brain Connectivity Estimation by Multivariate Autoregressive Approach	Course 2.3e: #56 Electrodiagnosis of Trigeminal and Facial Neuropathies	Course 2.3f: Brain Stimulation for Dummies: Part 2 Session 1: Biomarkers, Combining NIBS with EEG and fMRI Session 2: Therapeutic Indications: Which Protocol for Which Disorders and Why? Session 3: Hands-On: Pitfalls & Common Mistakes When Using NIBS
3:00-5:00		Course 2.4b: #111 Hands-On Teaching Course on Performing Single and Paired-pulse TMS Tests Single-Handedly		Course 2.4d: #5 Terra Incognita: Focal Epilepsy of Unknown Cause in our Current Understanding	Course 2.4e: #151 The Visual Platform for Diagnosis and Monitoring of Demyelinating Diseases	
5:00-6:00	<p align="center">Welcome Talks</p> <p align="center">Wolfgang Oertel; Hertie Foundation, Philipps Universität of Marburg, Germany <i>European Research Perspectives in Neuroscience</i></p> <p align="center">Stephanie Lacour; EPFL, Switzerland <i>Revisiting Surface Electrode Implants for the Brain</i></p>					
6:15-8:00	Welcome Ceremony & Reception					

Educational / scientific tracks



TUESDAY, SEPTEMBER 6: SCIENTIFIC SYMPOSIA

8:00-9:30 Session Information	Session 3.1a: DICOM WG32 Neurophysiology Format Standardization in DICOM	Session 3.1b: #11 Biomarkers in Epilepsy: The Renaissance of an Old Method	Session 3.1c: #293bs Deep Brain Stimulation for Central Post-Stroke Pain: Quo Vadis?	Session 3.1d: #4 Neurophysiological Foundations of Transcranial Ultrasonic Stimulation (TUS) in Humans	Session 3.1e: #87 Connecting to the Networks of the Human Brain by EEG-Guided Closed-Loop TMS	Session 3.1f: #274bs Towards Optimized TMS Targeting Approaches	A Practical Symposium TMS as a Diagnostic Tool: How to be Fast and Furious
9:30-10:00	Break						
10:00-11:00	The History of IFCN and Clinical Neurophysiology—75 Years of the IFCN: Past Accomplishments, Future Chances Marc Nuwer, UCLA Mark Hallett, National Institutes of Health Paolo Rossini, Catholic University of the Sacred Heart Nortina Shahrizaila, University of Malaya						
11:00-12:00	IFCN Award for Central Clinical Neurophysiology Riitta Hari; Aalto University; Espoo, Finland <i>Ups and Downs on the MEG Road</i>						
12:00-1:30	Lunch and Posters						
1:30-3:00 Session Information		Session 3.2b: #32 There is Much More in the EEG than Spikes and Seizures	Session 3.2c: #50 Update on Methods for Assessment of Cortical Engagement in Pain Processing	Session 3.2d: #148bs Basic and Clinical Applications of Transcranial Focused Ultrasound for Neuromodulation	Session 3.2e: #140 TMS-EEG to Better Characterize and Predict the Course of Neurological Disorders	Session 3.2f: #47 New Frameworks for Studying Cortical Connectivity and Activation	Session 3.2g: #6 TMS Over the Cerebellum: Cerebellar Inhibition of the Motor Cortex (CBI)
3:00-3:15	Break						
3:15-4:45 Session Information	Session 3.3a: #17 Translational Computational Modelling Relates AD Pathophysiology to Large-Scale Brain Dynamics	Session 3.3b: #26 Silent Epilepsy in Alzheimer’s Disease?	Session 3.3c: #92 New Insights on Human Models and Neurophysiological Biomarkers of Central Sensitization	Session 3.3d: #85bs Human Ultrasound Neuromodulation - State of the Art	Session 3.3e: #133 Theoretic Foundations and New Strategies to Promote Visuo-Attentional Restoration in Stroke	Session 3.3f: #88bs Novel Non-Invasive Brain Stimulation Approaches to Probe the Functional Brain Networks and Abnormal Connectivity in Movement Disorders	Session 3.3g: #268bs Targets of Non-Invasive Brain Stimulation: Neurons and More
4:45-5:00	Break						
5:00-6:00	IFCN Award for Fundamental Research in Clinical Neurophysiology Hugh Bostock; UCL Queen Square Institute of Neurology; London, United Kingdom <i>A Physiologist’s Incursions into Clinical Neurophysiology</i>						
6:00-8:00	IFCN General Assembly						

Educational / scientific tracks



WEDNESDAY, SEPTEMBER 7: SCIENTIFIC SYMPOSIA

8:00-9:30 Session Information	Session 4.1a: #79 Advances in Understanding Physiological Mechanisms and Clinical Use of Prepulse Inhibition	Session 4.1b: #131 Automating Clinical Neurophysiology For Seizure Forecasting and Outcome Prediction	Session 4.1c: #165 The Importance of Neurophysiological Assessment in Acute and Long-Term COVID-19	Session 4.1d: #83 Tracking Plasticity: Sensorimotor Neurophysiology in Health and Disease	Session 4.1e #19 Mastering Semi-Quantitative Motor Unit Potential Analysis	Session 4.1f: #166bs Non Invasive Brain Stimulation in Alzheimer's Disease and Related Dementias: From Emerging Biomarkers to Novel Therapeutics	Session 4.1g: #190bs Deep Brain Stimulation and Neuroprotection: From Bench to Bedside
9:30-10:00	Break						
10:00-12:00	<p>Plenary Lecture: Joint IFCN / EAN Session: Advances in Neurophysiological Testing, Diagnosis and Therapy of Sleep Disorders</p> <p>Co-Chairs: Jonathan Cole; Claudio L. Bassetti</p> <p>Speakers: Pierre-Hervé Luppi; Team "SLEEP", Centre de Recherche en Neurosciences de Lyon; <i>Sleep-Wake Neurophysiology</i> Claudio L. Bassetti; Department of Neurology, Sleep-Wake-Epilepsy-Center and University Hospital, University of Bern; <i>Narcolepsy and its Borderland</i> Ambra Stefani; Department of Neurology, Medical University of Innsbruck; <i>Clinical Neurophysiology of REM Parasomnias</i></p>						
12:00-1:30	Lunch and Posters						
1:30 -3:00 Session Information	Session 4.2a: #114 EEG-Biomarkers in Neuropsychiatry: Use for Treatment Stratification	Session 4.2b: #91 Biomarkers in Ultra Long-Term EEG Monitoring	Session 4.2c: #135 Source Imaging and Multimodal Integration in Focal Epilepsy	Session 4.2d: #112 ISIN Update- Intraoperative Mapping and Monitoring Techniques of the Exposed Spinal Cord to Gain More Insights into Spinal Cord Physiology	Session 4.2e: #253bs Optimizing Navigated TMS-EEG in Basic and Clinical Research	Session 4.2f: #72 Aging and Cognitive Decline: Physiological Biomarkers and Transcranial Stimulation	Session 4.2g #280bs Concurrent TMS-fMRI for Network Mapping and Proof of Neural Target Engagement
3:00-3:15	Break						
3:15-4:45 Session Information	Session 4.3a: #53 The Application of Electrophysiological Measures as Biomarkers of Disease Progression and Outcome in Psychoses	Session 4.3b: #55 Signal Analysis for Ultra-Long Term EEG Monitoring in Epilepsy	Session 4.3c: #109 Advances in EEG/MEG Source Estimation and Imaging	Session 4.3d: #150 Intraoperative Neurophysiological Guidance During Brainstem Surgery- How IOM May Increase Safety in High-Risk Surgeries	Session 4.3e: #122bs Recent Methodological Advances in the Use of TMS-EEG and EEG-TMS for Research and Treatment	Session 4.3f: #38bs Non-Invasive Brain Stimulation in Higher Age: From Modeling, and Physiology to Functional Application	Session 4.3g: #21 Neurodynamics Exploration for Neuromodulation Tuning Against Chronic Fatigue
4:45-5:00	Break						
5:00-6:00	<p>IFCN Award for Peripheral Clinical Neurophysiology</p> <p>Francis O. Walker; Department of Neurology, Wake Forest University School of Medicine; Winston-Salem, USA</p> <p><i>Neuromuscular Ultrasound: Past, Present and Future</i></p>						
7:30-10:00	Gala Reception						

Educational / scientific tracks



THURSDAY, SEPTEMBER 8: SCIENTIFIC SYMPOSIA

8:00-9:30 Session Information	Session 5.1a: #85 EEG in the ICU: a Critical Update		Session 5.1c: #93 High Frequency Oscillations in Epilepsy: New Options for Diagnosis and Therapy Monitoring	Session 5.1d: #98 Quantitative Clinical Neurophysiology of Sleep in Neurological Disorders	Session 5.1e: #101bs Non-invasive Brain and Spinal Stimulation (NIBSS) Strategies for Diagnosis and Treatment of Amyotrophic Lateral Sclerosis (ALS)	Session 5.1f #236bs: Non-Invasive Brain Stimulation for Epilepsy: Where Do We Stand?	Session 5.1g: #22 Combining Invasive and Non-Invasive Brain Stimulation to Elucidate Mechanisms of Human Brain Plasticity and Develop Novel Brain Stimulation Treatments
9:30-11:00 Title	Session 5.2a: #45 Acute Symptomatic Seizures and the Ictal-Interictal Continuum: Definitions, Acute Management and Long-Term Outcomes	Session 5.2b: #16 a joint session presented by the International Federation of Clinical Neurophysiology and the Peripheral Nerve Society Looking Beyond Conventional Neurophysiology in the Evaluation of Peripheral Nerve Disorders	Session 5.2c: #81 Music in Brain	Session 5.2d: #145 New Insights Sleep Neurophysiology Provides About Bidirectional Effects of Sleep on Focal-Onset Epilepsies in Adults	Session 5.2e: #89bs Towards Clinical Applications of Transcranial Static Magnetic Field Stimulation: From Mechanisms to Diseases	Session 5.2f: #101 New Horizons in Neuromodulation in Refractory Epilepsy	Session 5.2g: #134 Transcranial Direct Current Stimulation in the Pediatric Population
11:00-11:15	Break						
11:15-12:45 Session Information	Session 5.3a: #48 Neurophysiology and Neuroimaging After Cardiac Arrest in the Era of Targeted Temperature Management	Session 5.3b: #106 Small Fibre Neuropathy; Clinical Picture, Pathophysiology and Treatment		Session 5.3d: #129 Quantitative Neuroimaging of Public Health Problems: Examples from Latin America	Session 5.3e: #86bs Physiological and Pathological Oscillations in the Human Motor System	Session 5.3f: #100 Novel Applications of Non-Invasive Brain Stimulation for Assessing and Treating Epilepsy in Children	Session 5.3g: #10 Pharmaco-TMS-EEG and Pharmaco-EEG
12:45-2:15	Lunch and Posters						
2:15-3:45 Session Information	Session 5.4a: #95 Perfusion-Optimization Responding Syndrome: From Clinical to Electroencephalographic Definition of an Individualized Ischemic Threshold in Ischemic Stroke and Subarachnoid Hemorrhage	Session 5.4b: #123 New Insights into the Pathophysiology of Amyotrophic Lateral Sclerosis	Session 5.4c: #172 EEG Biomarkers Across CNS Diseases – More than “Just Spikes”	Session 5.4d: #124 EEG on the Cloud	Session 5.4e: #80 Cranial Nerve Disorders and the Brainstem	Session 5.4f: #84bs New Therapeutic Outcomes of Neuromodulation in Epilepsy: Vagusnerve Stimulation, Thalamic Stimulation and Focal Cortex Stimulation	Session 5.4g: #125 Multimodal Investigations of Cortical Excitability and Plasticity as Biomarkers for Multiple Sclerosis
3:45-4:00	Break						
4:00-5:30	Awards and Closing Remarks						

Educational / scientific tracks

EEG and MEG	peripheral neurophysiology
brain stimulation	brainstem neurophysiology
intraoperative neuromonitoring	pediatric neurophysiology
intensive care neurophysiology	other topics