

## ICCN2010 SCIENTIFIC PROGRAM

### Named Lectures

- NL1 Adrian lecture**  
 Mauguière F (Lyon)  
 The functions of the human insula  
 Chairperson : Tanaka T (Kagoshima)  
 October 29 (Friday) 14:00–14:50  
 Venue A (Portopia Hall)
- NL2 Berger lecture**  
 Lüders HO (Cleveland)  
 Epilepsy and cortical function  
 Chairperson : Kato M (Fukuoka)  
 October 30 (Saturday) 14:00–14:50  
 Venue A (Portopia Hall)
- NL3 Kugelberg lecture**  
 Rossini PM (Rome)  
 Neuronal plasticity in human  
 Chairperson : Hashimoto I (Tokyo)  
 October 31 (Sunday) 14:00–14:50  
 Venue A (Portopia Hall)

### ICCN2010 Named Lectures

- October 29 (Friday) 13:00–13:50  
**ICCN2010-NL1 Buchthal Lecture**  
 Lehmann-Horn F (Ulm)  
 Myotonias as channelopathies  
 Chairperson : Arimura K (Kagoshima)  
 Venue B
- ICCN2010-NL2 Halliday Lecture**  
 Näätänen R (Helsinki)  
 Clinical use of mismatch negativity  
 Chairperson : Koga Y (Mitaka)  
 Venue C
- ICCN2010-NL3 Narabayashi Lecture**  
 Graybiel A (Cambridge, Mass.)  
 The basal ganglia and mind  
 Chairperson : Kaji R (Tokushima)  
 Venue D

### Special Lecture for Opening Ceremony

- Lücking CH (Freiburg) and Nuwer MR (Los Angeles)  
**History of IFCN**  
 Chairperson : Shibasaki H (Kyoto)  
 around 15:45–16:15

### Memorial Lectures (Joint Session of ICCN2010 and the 40th Annual Meeting of Japanese Society of Clinical Neurophysiology (JSCN40))

- November 1 (Monday) 17:45–18:55  
 (Before Closing Ceremony)  
 Venue A  
 Chair : Yanagisawa N (Tokyo)

#### Shimazono Lecture

- Hashimoto I (Tokyo)  
 Cortical representation of attention focus :  
 short-term plasticity in the human  
 somatosensory and auditory cortices

#### Tokizane Lecture

- Shibasaki H (Kyoto)  
 Cortical potentials associated with voluntary  
 and involuntary movements

### Special Lectures

- October 29 (Friday) 8:00–8:50
- SL1 Ziemann U (Frankfurt)**  
**Neuropharmacology of intracortical inhibition**  
 Chairperson : Hanajima R (Tokyo)  
 Venue B
- SL2 Guerit JM (Brussels)**  
**Use of evoked potentials for intraoperative monitoring**  
 Chairperson : Cibils D (Montevideo)  
 Venue C
- SL3 Valeriani M (Rome)**  
**Somatosensory evoked potentials**  
 Chairperson : Ozaki I (Aomori)  
 Venue D
- SL4 Stam CJ (Amsterdam)**  
**Cortico-cortical functional coupling : what can we learn from graph theory?**  
 Chairperson : Hallett M (Bethesda)  
 Venue E

**SL5** Valls-Sole J (Barcelona)  
Electrophysiological studies of cranial nerve functions  
Chairperson : Kimura J (Iowa City)  
Venue F

**SL6** Lauritzen M (Copenhagen)  
Hemodynamic vs. electrophysiologic activities of brain  
Chairperson : Fukuyama H (Kyoto)  
Venue G

October 30 (Saturday) 8:00–8:50

**SL7** Rothwell JC (London, UK)  
The future of TMS  
Chairperson : Ugawa Y (Fukushima)  
Venue B

**SL8** Stålberg EV (Uppsala)  
EMG study of myopathy  
Chairperson : Sonoo M (Tokyo)  
Venue C

**SL9** Garcia-Larrea L (Lyon)  
Cortical pain processing: Learning from healthy subjects and from patients in pain  
Chairperson : Kakigi R (Okazaki)  
Venue D

**SL10** Hallett M (Bethesda)  
Physiology of psychogenic movement disorders  
Chairperson : Shibasaki H (Kyoto)  
Venue E

**SL11** Mills KR (London, UK)  
Generation of abnormal spontaneous activity in muscle  
Chairperson : Komori T (Saitama)  
Venue F

**SL12** Burke D (Sydney)  
Action potential and impulse conduction in sensory and motor axons  
Chairperson : Kuwabara S (Chiba)  
Venue G

**SL13** Baehr M (Göttingen)  
Physiological studies of experimental optic neuritis

Chairperson : Tobimatsu S (Fukuoka)  
Venue H

October 31 (Sunday) 8:00–8:50

**SL14** Deuschl G (Kiel)  
The clinical physiology of tremor  
Chairperson : Elble RJ (Springfield, Ill)  
Venue A

**SL15** Sanders DB (Durham, N. C.)  
The physiology of neuromuscular transmission  
Chairperson : Oh SJ (Birmingham)  
Venue B

**SL16** Bostock H (London, UK)  
(Tasaki Memorial Lecture)  
Threshold electrotonus and related techniques  
Chairperson : Burke D (Sydney)  
Venue C

**SL17** Kimura J (Iowa City)  
Recent advances in F-wave studies  
Chairperson : Yanagisawa N (Tokyo)  
Venue E

**SL18** Tobimatsu S (Fukuoka)  
Physiology of visual cortex  
Chairperson : Kuroiwa Y (Yokohama)  
Venue G

**SL19** Daube JR (Rochester, Minn.)  
Pitfalls in needle electromyography: A case based review  
Chairperson : Kohara N (Kobe)  
Venue H

November 1 (Monday) 8:00–8:50

**SL20** Stegeman DF (Nijmegen)  
New insights from high density surface EMG  
Chairperson : Kimura A (Izu)  
Venue A

**SL21** Hari R (Espoo)  
Brains in social interaction  
Chairperson : Nagamine T (Sapporo)  
Venue C

**SL22** Brown P (London, UK)  
Significance of pathological oscillations in

**the basal ganglia circuit**

Chairperson : Hashimoto T (Matsumoto)

Venue D

**SL23 Eisen A (Vancouver)**  
**Electrophysiological diagnosis of ALS**

Chairperson : Dengler R (Hannover)

Venue E

**SL24 Lesser RP (Baltimore)**  
**Cortical recording and stimulation using subdural electrodes**

Chairperson : Ikeda A (Kyoto)

Venue G

**Award Lectures**

November 1 (Monday) 15:50–16:30

Venue G

**M. A. B. Brazier Young Investigator Award Lecture**

Vucic S (Sydney)

Corticomotoneuronal function in asymptomatic SOD-1 mutation carriers

**W. A. Cobb Young Investigator Award Lecture**

Jacobs J (Freiburg)

High frequency oscillations during epileptic spikes : automatic and visual analysis

**Symposium**

**S1 Sleep monitoring**

October 29 (Friday) 9:00–11:00

Venue A

Chairpersons : Chokroverty S (Edison, N. J.),  
 Kohyama J (Tokyo)

1. Tachibana N (Osaka)  
 Historical overview of sleep scoring—how and why it has been modified
2. Miyamoto T, Miyamoto M (Utsunomiya)  
 The clinical and polysomnographic features relevance of idiopathic REM sleep behavior disorders
3. Nakajima T (Mitaka)  
 The reproducibility of actigraph
4. Chokroverty S (Edison, N. J.)  
 The rhythms of the sleeping brain
5. Svanborg E (Stockholm)  
 Neurophysiological testing in obstructive sleep apnea syndrome. Evidence for nervous lesions in the upper airway

6. Kohyama J (Tokyo)  
 Sleep disorders in children

**S2 Working memory and social brain**

October 29 (Friday) 9:00–11:00

Venue B

Chairpersons : Stephane M (Minneapolis),  
 Osaka M (Osaka)

1. Osaka M (Osaka)  
 Neural bases of focusing attention in working memory : an fMRI study based on individual differences
2. Clark CR (Adelaide)  
 Working memory in post-traumatic stress disorder
3. Stephane M (Minneapolis)  
 Online information maintenance and impaired primacy effect in schizophrenia
4. Osaka N (Kyoto)  
 Cognitive aspects of social brain –Neural representation of the self : An fMRI study–
5. Sadato N (Okazaki)  
 The neural basis of social reward and decision-making

**S3 Excitability studies and threshold tracking**

October 29 (Friday) 9:00–11:00

Venue C

Chairpersons : Burke D (Sydney),  
 Kuwabara S (Chiba)

1. Bostock H (London, UK)  
 Muscle fiber excitability studies and their clinical application
2. Krarup C (Copenhagen)  
 Axonal conduction in degenerating and regenerating nerve fibers
3. Kuwabara S (Chiba)  
 Axonal excitability in diabetic neuropathy
4. Kiernan MC (Sydney)  
 Toxic and metabolic neuropathy
5. Nodera H (Tokushima)  
 Hypothesis of conduction block in ALS

**S4 Intracortical inhibition**

October 29 (Friday) 9:00–11:00

Venue D

Chairpersons : Di Lazzaro V (Rome),  
 Hanajima R (Tokyo)

1. Sohn YH (Seoul)  
 Surround inhibition in the human motor

system

2. Hanajima R (Tokyo)  
Mechanism of intracortical inhibition
3. Chen R (Toronto)  
Intracortical inhibition in movement disorders
4. Di Lazzaro V (Rome)  
Transcranial brain stimulation and cortical plasticity

### S5 High frequency oscillations (HFOs)

October 29 (Friday) 9:00–11:00

Venue E

Chairpersons : Restuccia D (Rome),  
Hashimoto I (Tokyo)

1. Hashimoto I (Tokyo)  
Exploring the physiology and function of high-frequency oscillations (HFOs) from the somatosensory cortex
2. Restuccia D (Rome)  
Pharmacological modulation of HFOs
3. Hamada M (Tokyo)  
HFOs in amyotrophic lateral sclerosis (ALS)
4. Alegre M (Pamplona)  
High-frequency oscillations in cortical myoclonus

### S6 Small fiber physiology

October 29 (Friday) 9:00–11:00

Venue F

Chairpersons : Cole J (Poole),  
Iwase S (Nagoya)

1. Cole J (Poole, UK)  
Physiology of low threshold unmyelinated sensory fibres
2. Inui K (Okazaki)  
Selective stimulation of cutaneous nociceptors by intra-epidermal electrical stimulation
3. Schmelz M (Heidelberg)  
Small fiber neuropathy and pain
4. Iwase S (Nagoya)  
Conduction velocity of C-fibers in humans

### S7 Evaluation of radiculopathy and myelopathy

October 29 (Friday) 9:00–11:00

Venue G

Chairpersons : Nobrega JA (Sao Paulo),  
Tani T (Kochi)

1. Kuruoglu R (Ankara)  
Electrodiagnostic evaluation of radiculopathies

2. Lo YL (Singapore)  
Electrophysiological evaluation of cervical spondylotic radiculopathy and myelopathy
3. Tani T (Kochi)  
Spinal cord evoked potentials in cervical compression myelopathies with conduction block
4. Nobrega JA (Sao Paulo)  
Evaluation of radiculopathy and myelopathy : F wave

### S8 Brain computer interface

October 29 (Friday) 9:00–11:00

Venue H

Chairpersons : Hallett M (Bethesda),  
Babiloni F (Rome)

1. Hallett M (Bethesda), Matsushashi M (Kyoto)  
Intention to move
2. Cichocki A (Wako)  
Current trends in noninvasive EEG brain computer interfaces
3. Ushiba J (Tokyo)  
Instrumentation
4. Yoshimine T (Osaka)  
Real-time decoding of ECoG for human motor BMI
5. Babiloni F (Rome)  
Brain computer interfaces for communication and control of robotic devices and domestic applications : possible role for clinical applications

### S9 Physiological studies of cognitive functions

October 29 (Friday) 15:00–17:30

Venue A

Chairpersons : Polich J (San Diego),  
Farina J (Porto Alegre)

1. Polich J (San Diego)  
Cognitive neuroelectric measures in the clinic
2. Tomberg C (Brussels)  
Factors influencing ERPs
3. Kuroiwa Y (Yokohama)  
Cognitive VEPs
4. Olichney JM (Davis, Calif.)  
Cognitive ERPs in Fragile X-associated Tremor Ataxia Syndrome (FXTAS) and early Alzheimer's Disease
5. Yamaguchi S (Izumo)  
Reward and motivation systems and their

- breakdown in neurological disorders
6. Tachibana H (Nishinomiya)  
Physiological studies of cognitive functions :  
Movement disorders
  7. Tucker DM (Eugene, Oregon)  
Dense array EEG in studies of epilepsy

### **S10 Clinical application of MEG : Epilepsy and brain mapping**

(Sponsored by Yokogawa Electric Co.)

October 29 (Friday) 15:00–17:30

Venue B

Chairpersons : Papanicolaou A (Houston),  
Nakasato N (Sendai)

1. Nakasato N (Sendai)  
Practical reasons for applying MEG clinically
2. Bast T (Kehl-Kork)  
Combined EEG and MEG analysis for epilepsy
3. Papanicolaou A (Houston)  
Simultaneous recordings of interictal discharges through MEG and subdural electrodes (iEEG)
4. Kamada K (Asahikawa)  
Spatial and temporal dynamics of language-related and face recognition brain functions by electrocorticogram and MEG
5. Roberts TP (Philadelphia)  
Electrophysiological signatures of language impairment in autism spectrum disorders: Developmental trajectory and correlation with clinical indices
6. Otsubo H (Toronto)  
MEG and intracranial video EEG in pediatric neocortical epilepsy

### **S11 Clinical application of rTMS**

October 29 (Friday) 15:00–17:30

Venue C

Chairpersons : Rossi S (Siena),  
Wang Y (Beijing)

1. Rossi S (Siena)  
Safety of TMS
2. Bestmann S (London, UK)  
Combined TMS and fMRI for studying network effects of TMS
3. Saitoh Y (Osaka)  
Repetitive transcranial magnetic stimulation ( rTMS) for neuropathic pain

4. Kito S (Mitaka)  
Neuroanatomical correlates of therapeutic efficacy of transcranial magnetic stimulation in the treatment of depression
5. Wang Y (Beijing)  
rTMS application in epilepsy
6. Enomoto H (Fukushima)  
Potentiation and depotentiation of the motor cortex induced by quadripulse stimulation

### **S12 Physiological abnormalities in psychiatric diseases**

October 29 (Friday) 15:00–17:30

Venue D

Chairpersons : Salisbury DF (Boston),  
Niwa S (Fukushima)

1. Matsuura M (Tokyo)  
Introduction
2. Salisbury DF (Boston)  
ERP/ERO indices of static and progressive brain abnormalities in schizophrenia
3. Niwa S (Fukushima)  
ERP in schizophrenia and developing disorders
4. Stephane M (Minneapolis)  
Oscillatory activity associated with information encoding and maintenance in schizophrenia
5. Michie PT (Callaghan)  
Mismatch negativity : a physiological index of functional and structural brain abnormalities in schizophrenia
6. Takizawa R (Tokyo)  
Near-infrared spectroscopy (NIRS) in psychiatric disorders
7. Araki T, Kasai K (Tokyo)  
Mismatch negativity in patients with an at risk mental state

### **S13 Deep brain recording and stimulation**

October 29 (Friday) 15:00–17:30

Venue E

Chairpersons : Katayama Y (Tokyo),  
Rektor I (Brno)

1. Hashimoto T (Matsumoto)  
Physiological findings
2. Rektor I (Brno)  
Basal ganglia (BG) recording in epilepsy
3. Fraix V (Grenoble)  
Deep brain recordings and stimulation : findings in Parkinson disease

4. Zhuang P (Beijing)  
Dystonia
5. Katayama Y (Tokyo)  
Thalamic microrecording and stimulation in patients with phantom limb pain
6. Cancelled

**S14 Development and brain functions**

October 29 (Friday) 15:00–17:30

Venue F

Chairpersons : Vanhatalo S (Helsinki),  
Ozaki H (Mito)

1. Vanhatalo S (Helsinki)  
Neonatal EEG beyond the graphoelements
2. Pihko E (Helsinki)  
Neonatal MEG
3. Martinovic Z (Belgrade)  
EEG evolution in children with epilepsy
4. Inagaki M (Kodaira)  
Magnocellular VEP in dyslexics
5. Chan AS (Hong Kong)  
Disordered connectivity associated with memory deficits in children with autism spectrum disorders
6. Ozaki H (Mito)  
Neurophysiological contribution to evidence based education

**S15 Auditory system**

October 30 (Saturday) 9:00–11:00

Venue A

Chairpersons : Fischer C (Lyon),  
Ozaki I (Aomori)

1. Cancelled
2. Okamoto H (Münster)  
Basic and clinical studies by using magnetoencephalography (MEG)
3. Ozaki I (Aomori)  
Human tonotopic maps studied by magnetoencephalography
4. Fischer C (Lyon)  
Auditory event-related potentials (ERPs) in uncommunicative patients
5. Satoh M (Sendai)  
Music and the brain : cognition and emotion

**S16 Event-related desynchronization/synchronization (ERD/ERS)**

October 30 (Saturday) 9:00–11:00

Venue B

Chairpersons : Derambure P (Lille),  
Hirata M (Osaka)

1. Neuper C (Graz)  
New concepts of ERD/ERS for the study of mental processes
2. Hirata M (Osaka)  
Neurophysiological approach to language function based on event-related oscillatory changes : from functional mapping to brain-machine interface
3. Wheaton L (Atlanta)  
Praxis Movements : the role of the beta band in higher-order motor control
4. Derambure P (Lille)  
Clinical application of ERD/ERS

**S17 Sensorimotor integration**

October 30 (Saturday) 9:00–11:00

Venue C

Chairpersons : Tecchio F (Rome),  
Mima T (Kyoto)

1. Ohki Y (Mitaka)  
Basic Physiology
2. Tecchio F (Rome)  
Sufferance relieve approached by individualized interventions
3. Kida T (Okazaki)  
Movement-induced and attentional modulation in the somatosensory system
4. Mima T (Kyoto)  
Afferent inhibition of the motor evoked potentials (combined study)

**S18 Visual system**

October 30 (Saturday) 9:00–11:00

Venue D

Chairpersons : Holder GE (London, UK),  
Tobimatsu S (Fukuoka)

1. Holder GE (London, UK)  
Clinical application of electroretinography (ERG)
2. Miyake Y (Nagoya)  
Electrodiagnosis in differentiating retina and optic nerve disease
3. Tobimatsu S (Fukuoka)  
Modality specific VEPs
4. Hirai M (Kingston, Ontario)  
Neural dynamics of biological motion perception

5. Puce A (Bloomington, Ind.,)  
Neural measures of non-verbal communication

**S19 Use of TMS for treatment (Sponsored by Magstim)**

October 30 (Saturday) 9:00–11:00

Venue E

Chairpersons : Mills KR (London, UK),  
Tsuji S (Kitakyushu)

1. Mills KR (London, UK)  
The basic mechanisms of TMS and some application to ALS patients
2. Terao Y (Tokyo)  
Implications of hemispheric lateralization in motor recovery
3. Ugawa Y (Fukushima)  
Use of TMS for treatment : Parkinson disease
4. Cancelled
5. Paulus W (Göttingen)  
Transcranial electric stimulation techniques

**S20 Pathophysiology of essential tremor**

October 30 (Saturday) 9:00–11:00

Venue F

Chairpersons : Vaillancourt DE (Chicago),  
Katayama Y (Tokyo)

1. Volkmann J (Kiel)  
Lessons deep brain stimulation told us about the pathophysiology of essential tremor
2. Katayama Y (Tokyo)  
Thalamic neurons with tremor-frequency activity in patients with essential tremor
3. Louis ED (New York)  
Pathology of essential tremor
4. van Rootselaar AF (Amsterdam)  
Cortical tremor
5. Vaillancourt DE (Chicago)  
Movement and brain function in essential tremor and Parkinson's disease

**S21 Infralow cortical activities**

October 30 (Saturday) 9:00–11:00

Venue G

Chairpersons : Fabricius M (Copenhagen),  
Ikeda A (Kyoto)

1. Fabricius M (Copenhagen)  
Cortical spreading depolarizations
2. Rodin E (Salt Lake City)  
Periictal intracranial EEG infralow activity

3. Ikeda A (Kyoto)  
Clinical application of infralow cortical activities in epilepsy
4. Vanhatalo S (Helsinki)  
Infralow events in child brain

**S22 EEG/MEG and epilepsy in children**

October 30 (Saturday) 9:00–11:00

Venue H

Chairpersons : Pihko E (Helsinki),  
Kaga M (Kodaira)

1. Negoro T (Okazaki)  
Development of electroencephalography (EEG) and age dependent epilepsies
2. Kubota M (Tokyo)  
An MEG analysis of rolandic discharges in benign rolandic epilepsy and related syndromes. – Pathophysiology and developmental aspects –
3. Pihko E (Helsinki)  
Neonatal MEG
4. Ochi A, Otsubo H (Toronto)  
EEG/MEG and epilepsy in children
5. Kaga M (Kodaira)  
Auditory perception in Landau-Kleffner syndrome

**S23 Intraoperative and ICU monitoring**

(Sponsored by CareFusion Japan)

October 30 (Saturday) 15:00–17:30

Venue A

Chairpersons : Nuwer MR (Los Angeles),  
Cibils D (Montevideo)

1. Cibils D (Montevideo)  
Overview of intraoperative and ICU monitoring
2. Guerit JM (Brussels)  
ICU monitoring of cortical vs brainstem function
3. Fabricius M (Copenhagen)  
Long term electrocorticography in acute brain injury
4. Fischer C (Lyon)  
Auditory event-related potentials (ERPs) in comatose patients
5. Machado C (Havana)  
Diagnosis of brain death and other disorders of consciousness
6. Yamamoto T (Tokyo)  
Neurosurgical monitoring

7. Cancelled

**S24 Use of near-infrared spectroscopy (NIRS)**

October 30 (Saturday) 15:00–17:30

Venue B

Chairpersons : Mackert BM (Berlin),  
Koizumi H (Saitama)

1. Koizumi H (Saitama)  
Principle of NIRS imaging
2. Hoshi Y (Tokyo)  
Basic studies on NIRS : toward further development of functional optical brain imaging
3. Watanabe E (Shimotsuke)  
Clinical application of NIRS
4. Fukuda M (Maebashi)  
Near-infrared spectroscopy in psychiatry
5. Fallgatter AJ (Würzburg)  
NIRS in attention deficit / hyperactivity disorder
6. Yamaguchi M (Tokyo)  
NIRS study in infants
7. Mackert BM (Berlin)  
Combined dc-magnetoencephalography and near-infrared spectroscopy to study simultaneously neuronal and vascular brain functions

**S25 Use of botulinum toxin for neurological disorders**

(Sponsored by GlaxoSmithKline)

October 30 (Saturday) 15:00–17:30

Venue C

Chairpersons : Rogers JD (Singapore),  
Kaji R (Tokushima)

1. Rogers JD (Singapore)  
Beyond the neuromuscular junction and implication for clinical application
2. Mezaki T (Tsu)  
Dystonia
3. Cancelled
4. Kaji R (Tokushima)  
Spasticity
5. Rosales RL (Manila)  
Spasticity and botulinum toxin therapy : Whom and when to inject?
6. Nezu A (Yokohama)  
Botulinum toxin in the palliative care management for severe cerebral palsy

7. Bouhassira D (Boulogne–Billancourt)  
Use of botulinum toxin for the treatment of pain

**S26 Sleep disorders**

October 30 (Saturday) 15:00–17:30

Venue D

Chairpersons : Montplaisir J (Montreal),  
Hirata K (Mibu)

1. Hirata K (Mibu)  
Overview
2. Dyken ME, Yamada T (Iowa City)  
The clinical diagnostic pitfalls of polysomnography
3. Inoue Y (Tokyo)  
Clinical application of PSG to REM sleep behavior disorder and periodic leg movements during sleep
4. Montplaisir J (Montreal)  
REM sleep behavior disorder : a royal path to study neurodegeneration
5. de Weerd AW (Hague)  
Periodic limb movements during sleep : Actor or bystander?
6. Ozone M (Tokyo)  
CAP (cyclic alternating pattern) in psychiatric disorder

**S27 Physiology of polyneuropathies**

October 30 (Saturday) 15:00–17:30

Venue E

Chairpersons : Reisin RC (Buenos Aires),  
de Carvalho MA (Lisbon)

1. Reisin RC (Buenos Aires)  
Peripheral neuropathy : Introduction
2. Goh K-J (Kuala Lumpur)  
Guillain–Barré syndrome : Clinical and electrophysiological spectrum
3. Franssen H (Utrecht)  
Demyelinating neuropathies
4. Misawa S (Chiba)  
Ionic pathophysiology of human diabetic neuropathy : Investigation of axonal excitability can provide new insights into therapeutic strategies
5. Huang CC (Taipei)  
Toxic neuropathy
6. de Carvalho MA (Lisbon)  
Familial amyloid polyneuropathy



7. Lin CS (Sydney)  
 Porphyric neuropathy : Insane in the membrane

**S28 Mapping and monitoring for eloquent area during neurosurgery**

October 30 (Saturday) 15:00–17:30

Venue F

Chairpersons : Sala F (Verona),  
 Tamaki T (Wakayama)

1. Tamaki T (Wakayama)  
 The history of the intra-operative spinal cord monitoring
2. Sala F (Verona)  
 Motor evoked potential monitoring and subcortical mapping in brain tumor surgery
3. Fukaya C (Tokyo)  
 D-wave monitoring in brain tumor surgery
4. Szelenyi A (Frankfurt)  
 MEP monitoring in vascular neurosurgery
5. Shinomiya K, Kawabata S (Tokyo)  
 Multimodal intraoperative spinal cord monitoring during cervical spine surgery
6. Mikuni N (Kyoto)  
 Integrated functional neuronavigation during neurosurgery

**S29 Mismatch negativity (MMN)**

October 31 (Sunday) 9:00–11:00

Venue A

Chairpersons : Naatanen R (Helsinki),  
 Yabe H (Fukushima)

1. Naatanen R (Helsinki)  
 The mismatch negativity (MMN) – The principle
2. Yabe H (Fukushima)  
 The concept of temporal integration window and its clinical applications
3. Escera C (Barcelona)  
 Ultrafast mechanisms of auditory novelty detection in the human brain
4. Kirino E (Shizuoka)  
 Simultaneous EEG–fMRI recording of MMN in schizophrenia
5. Michie PT (Callaghan)  
 MMN in schizophrenia : relationship to functional status, generator sources and grey matter loss

**S30 High resolution EEG analysis**

October 31 (Sunday) 9:00–11:00

Venue B

Chairpersons : Stam CJ (Amsterdam),  
 Koga Y (Mitaka)

1. Koga Y (Mitaka)  
 Overview : Further growth and development of electroencephalography
2. Pascual-Marqui RD (Zurich)  
 Functional localization and cortical connectivity : discovering the parts and their interactions using exact LORETA
3. Stam CJ (Amsterdam)  
 Analysis methods : new approaches to the characterization of functional brain networks
4. Babiloni C (Rome)  
 Mechanisms of cortical neural synchronization in humans as revealed by advanced EEG techniques
5. Harmony T (Mexico City)  
 Norms for frequency EEG source analysis in the first year of life

**S31 Somatosensory system**

October 31 (Sunday) 9:00–11:00

Venue C

Chairpersons : Yamada T (Iowa City),  
 Tinazzi M (Verona)

1. Sonoo M (Tokyo)  
 Generator mechanism of somatosensory evoked potentials (SEPs)
2. Yamada T (Iowa City)  
 The relationship between SEP and sleep
3. Hoshiyama M (Nagoya)  
 Two-point discrimination : evaluation using neurophysiological methods
4. Valeriani M (Rome)  
 Clinical use of SEP
5. Tinazzi M (Verona)  
 Sensory functions in movement disorders

**S32 Functional recovery of stroke patients**

October 31 (Sunday) 8:00–10:00

Venue F

Chairpersons : Hummel FC (Hamburg),  
 Miyai I (Osaka)

1. Liu M (Tokyo)  
 Brain Machine Interface (BMI) neurofeedback training for hemiparetic stroke
2. Miyai I (Osaka)  
 Neural mechanisms underlying functional recovery after stroke

3. Hummel FC (Hamburg)  
Mechanisms of stroke recovery :  
Non-Invasive brain stimulation to enhance neuronal plasticity and functional recovery
4. Fujiwara T (Tokyo)  
Effect of hybrid assistive neuromuscular dynamic stimulation (HANDS) therapy for functional recovery after stroke

**S33 Psychophysiology of attention-deficit/hyperactivity disorders (AD/HD)**

October 31 (Sunday) 9:00–11:00

Venue G

Chairpersons : Fallgatter AJ (Würzburg),  
Yasuhara A (Hirakata)

1. Yasuhara A (Hirakata)  
Continuous performance test "Mograz" using personal computer in children with attention deficit/hyperactivity disorders (ADHD)
2. Yamashiro D, Goto Y, Kaga Y, Aihara M (Kofu)  
Psychophysiological evidences of poor inhibition in AD/HD
3. Tripp EG (Okinawa)  
ADHD and reward
4. Fallgatter AJ (Würzburg)  
Neurophysiology of AD/HD

**S34 Neurophysiology of rehabilitation**

October 31 (Sunday) 9:00–11:00

Venue H

Chairpersons : Robinson LR (Seattle),  
Kimura A (Izu)

1. Li LSW (Hong Kong)  
Current status of neurorehabilitation
2. Kimura A (Izu)  
Motor recovery from hemiplegia after stroke
3. Ikoma K (Sapporo)  
Use of TMS for rehabilitation
4. Takahashi H (Mitaka)  
Spasticity reduction by inhibitive orthosis
5. Robinson LR (Seattle)  
Electrodiagnosis of carpal tunnel syndrome

**S35 Fasciculation and motor neuron disease**

October 31 (Sunday) 15:00–17:30

Venue A

Chairpersons : Fuglsang-Frederiksen A (Aarhus),  
Sonoo M (Tokyo)

1. Eisen A (Vancouver)  
Amyotrophic lateral sclerosis (ALS/MND)

clinical aspects

2. de Carvalho MA (Lisbon)  
Physiology of ALS
3. Dengler R (Hannover)  
Detection of upper motor neuron involvement in amyotrophic lateral sclerosis (ALS)
4. Sonoo M (Tokyo)  
EMGs in ALS
5. Kleine BU, Stegeman DF (Nijmegen)  
Mechanisms of fasciculation
6. Fawcett PRW (Newcastle upon Tyne)  
Macro EMG
7. Fuglsang-Frederiksen A (Aarhus)  
Sensory nerve in ALS

**S36 Recent advance in magnetoencephalography (MEG)**

(Sponsored by Elekta Neuromag Oy)

October 31 (Sunday) 15:00–17:30

Venue B

Chairpersons : Hari R (Espoo),  
Nagamine T (Sapporo)

1. Ahonen A (Helsinki)  
Recent advances in MEG – techniques and analysis methods
2. Hashimoto I (Tokyo)  
Magnetic signals from deep sources in the human brain
3. Nagamine T (Sapporo)  
Features of MEG signals compared with EEG
4. Kaneoke Y (Okazaki)  
Studies on visual motion detection process in humans
5. Hirata M (Osaka)  
Event-related oscillatory changes : a key to elucidating neural processes
6. Okada Y (Boston)  
Electrophysiological signatures of early human brain development

**S37 Update of TMS**

October 31 (Sunday) 15:00–17:30

Venue C

Chairpersons : Ziemann U (Frankfurt),  
Nakashima K (Yonago)

1. Nakashima K (Yonago)  
Update of TMS : Introduction
2. Ziemann U (Frankfurt)  
Pharmacology and TMS

3. Huang Y-Z (Taipei)  
Theta burst stimulation
4. Magistris MR (Geneva)  
The triple stimulation technique
5. Ugawa Y (Fukushima)  
Update of TMS, quadripulse stimulation
6. Cincotta M (Florence)  
Mirror movements
7. Murase N (Tokushima)  
Long-term effect of repetitive transcranial magnetic stimulation over the premotor cortex for upper limb dystonia

### S38 Face perception

October 31 (Sunday) 15:00–17:30

Venue E

Chairpersons : Puce A (Bloomington, Ind.),  
Kakigi R (Okazaki)

1. Puce A (Bloomington, Ind.,)  
Face perception : Overview
2. Kakigi R (Okazaki)  
EEG/MEG
3. Iidaka T (Nagoya)  
A role of face angle in neural activity in the inferior temporal cortex – A 3T fMRI study in human –
4. Gunji A (Kodaira)  
Facial cognition in autistic children
5. Nakato E (Tokyo)  
Familiar vs. unfamiliar faces to infants studied by NIRS
6. Eifuku S (Toyama)  
Neural basis for associative face memory in the anterior inferior temporal cortex of monkeys
7. Rossion B (Louvain)  
The neurophysiology of acquired prosopagnosia

### S39 Physiological studies of language

October 31 (Sunday) 15:00–17:30

Venue F

Chairpersons : Salmelin R (Espoo),  
Sakai K (Tokyo)

1. Salmelin R (Espoo)  
Neurophysiology of language : the MEG approach
2. Sakai K (Tokyo)  
Broca's area revisited
3. Fujimaki N (Akashi)  
Linguistic brain functions and context effects

- measured by MEG
4. Papanicolaou A (Houston)  
Presurgical language lateralization
5. Kamada K (Asahikawa)  
Visualization of the subcortical language fibers on tractography by co-utilizing functional MRI and MEG
6. Usui K (Shizuoka)  
Basal temporal language area

### S40 Rapid eye movements (REM) and sleep : EEG and fMRI study

November 1 (Monday) 9:00–11:00

Venue A

Chairpersons : Bodizs R (Budapest),  
Miyachi S (Kobe)

1. Bodizs R (Budapest)  
Emergence of REM sleep features during wakefulness–sleep transition
2. Abe T (Tokyo)  
Gamma band EEG activities before and after REM
3. Ogawa K (Saitama)  
Event-related potential accompanying REM
4. Miyachi S (Kobe)  
fMRI activation time-locked to rapid eye movements during REM sleep
5. Bodis-Wollner I (New York)  
Perisaccadic modulation of brain activity : EEG and fMRI

### S41 Gait disturbance

November 1 (Monday) 9:00–11:00

Venue C

Chairpersons : Lamontagne A (Montreal),  
Takakusaki K (Asahikawa)

1. Takakusaki K (Asahikawa)  
Basic physiology of locomotion
2. Hanakawa T (Kodaira)  
Neural control of bipedal gait
3. Miyai I (Osaka)  
Functional NIRS study for gait disturbance
4. Lamontagne A (Montreal)  
Post-stroke gait disturbances : innovative rehabilitation approaches

### S42 Digital EEG and EEG standards

November 1 (Monday) 9:00–11:00

Venue D

Chairpersons : Nuwer MR (Los Angeles),

Guerit JM (Brussels)

1. Nuwer MR (Los Angeles)  
Digital EEG and EEG standards
2. Nakamura M (Saga)  
Automatic EEG interpretation
3. Kobayashi K, Yoshinaga H (Okayama)  
Utility of digital EEG analysis in childhood epilepsy
4. Guerit JM (Brussels)  
EEG standards for ICU monitoring

**S43 Vestibular physiology and postural control**

November 1 (Monday) 9:00–11:00

Venue E

Chairpersons : Colebatch JG (Sydney),  
Murofushi T (Tokyo)

1. Murofushi T (Tokyo)  
Neurophysiology of vestibular function
2. Colebatch JG (Sydney)  
Ocular vestibular evoked myogenic potentials (OVEMPs)
3. Kim JS (Seoul)  
Central mechanisms of vestibular function :  
Saccular responses
4. Fujiwara K (Kanazawa)  
Postural control and EEG during platform  
perturbation

**S44 Channel disorders**

November 1 (Monday) 9:00–11:00

Venue F

Chairpersons : Lehmann-Horn F (Ulm),  
Arimura K (Kagoshima)

1. Kiernan MC (Sydney)  
Physiological studies in channel disorders
2. Kuwabara S (Chiba)  
Axonal ion channel dysfunction and the split  
hand syndrome in ALS
3. Maselli RA (Davis, Calif.)  
Neuromuscular junction muscle physiology  
genetics
4. Arimura K (Kagoshima)  
Periodic paralyses
5. Lehmann-Horn F (Ulm)  
Chloride and sodium channel myotonias

**S45 Physiological evaluation of myopathies**

November 1 (Monday) 9:00–11:00

Venue G

Chairpersons : Zaleska E (Warsaw),

Imai T (Sapporo)

1. Zaleska E (Warsaw)  
The diagnostic yield of atypical motor unit  
potentials
2. Imai T (Sapporo)  
Measurement of excitation-contraction coupling  
time of masseter in mandibular movement
3. Zierz S (Halle/Saale)  
Diagnostic value of muscle biopsy versus  
molecular genetics in myopathies.
4. Jurkat-Rott K (Ulm)  
Periodic paralysis

**S46 Neuroimaging and electrophysiology**

November 1 (Monday) 14:00–16:30

Venue A

Chairpersons : Lauritzen M (Copenhagen),  
Fukuyama H (Kyoto)

1. Fukuyama H (Kyoto)  
Neurovascular coupling
2. Lauritzen M (Copenhagen)  
Neurometabolic coupling
3. Magistretti PJ (Lausanne)  
Neuron-glia metabolic coupling and plasticity
4. Le Bihan D (Paris)  
Membranes, water and diffusion : Potential  
for brain imaging
5. Nagata K (Akita)  
Functional neuroimaging in stroke and  
dementia
6. Ushida T (Nagakute)  
Neuroimaging for pain

**S47 Epilepsy**

(Sponsored by Otsuka Pharmaceutical /  
UCB Japan)

November 1 (Monday) 14:00–16:30

Venue B

Chairpersons : Ebersole JS (Chicago),  
Chauvel P (Marseille)

1. Sakamoto AC (Ribeirao Preto)  
Electrophysiological diagnosis of epilepsy
2. Lee BI (Seoul)  
Neuroimaging of epilepsy
3. Kwan P (Hong Kong)  
Drug treatment of epilepsy
4. Ebersole JS (Chicago)  
Source analysis of scalp EEG
5. Chauvel P (Marseille)  
Intracerebral EEG

6. Ikeda A (Kyoto)  
Wideband intracranial EEG
7. Inoue Y (Shizuoka)  
Lateralizing and prognostic seizure symptoms in medial temporal lobe epilepsy

**S48 Functional and effective connectivity**

November 1 (Monday) 14:00–16:30

Venue C

Chairpersons : Stam CJ (Amsterdam),  
Honda M (Kodaira)

1. Honda M (Kodaira)  
Differential function of fronto-parietal network in mental operation
2. Matsumoto R (Kyoto)  
*In vivo* exploration of brain network by means of cortico-cortical evoked potentials
3. Stam CJ (Amsterdam)  
The breakdown of functional connectivity in neuropsychiatric disease
4. Ilmoniemi RJ (Helsinki)  
TMS and EEG
5. Mochizuki H (Fukushima)  
Transcranial magnetic stimulation and near infrared spectroscopy
6. Mima T (Kyoto)  
Transcranial magnetic stimulation (TMS) and functional MRI

**S49 Entrapment neuropathies**

November 1 (Monday) 14:00–16:30

Venue D

Chairpersons : Us O (Istanbul),  
Tani T (Kochi)

1. Cancelled
2. Tani T (Kochi)  
Experimental focal compression of the median nerve at the wrist
3. Wilder-Smith EP (Singapore)  
Carpal tunnel syndrome (CTS), diagnostic and pathophysiologic considerations
4. Veerendrakumar M (Bangalore)  
Ulnar nerve palsy
5. Campero M (Santiago)  
Entrapment neuropathies : sensory nerve conduction
6. Us O (Istanbul)  
Plantar and sural nerve conduction studies

**S50 Physiology of pain and itch**

November 1 (Monday) 14:00–16:30

Venue E

Chairpersons : Treede R-D (Mainz),  
Garcia-Larrea L (Lyon)

1. Treede R-D (Mainz)  
Physiological study of pain
2. Tamura Y (Tokyo)  
Motor cortex stimulation and pain perception
3. Garcia-Larrea L (Lyon)  
Cortical mechanism of pain perception
4. Valeriani M (Rome)  
Generators of laser evoked potentials
5. Schnitzler A (Düsseldorf)  
Pain processing and cortical oscillations
6. Mochizuki H (Mannheim)  
Itch perception

**S51 Basal ganglia circuitry**

November 1 (Monday) 14:00–16:30

Venue F

Chairpersons : Vaillancourt DE (Chicago),  
Brown P (London, UK)

1. Hashimoto T (Matsumoto)  
Deep brain recording from the basal ganglia
2. Nambu A (Okazaki)  
Cortical inputs to the subthalamic nucleus
3. Fraix V (Grenoble)  
Basal ganglia circuitry : findings in Parkinson disease
4. Brown P (London, UK)  
Physiological significance of oscillations in the basal ganglia
5. Vaillancourt DE (Chicago)  
Long-term effects for deep brain stimulation for Parkinson disease
6. Sawamoto N (Kyoto)  
Basal ganglia circuitry : Cognitive functions

**S52 NIRS application in clinical psychiatry**

(Sponsored by HITACHI Medico)

November 1 (Monday) 14:00–15:50

Venue G

Chairpersons : Fukuda M (Maebashi),  
Fallgatter AJ (Würzburg)

1. Fukuda M (Maebashi)  
Approval of NIRS as the advanced medical technology in psychiatry
2. Fallgatter AJ (Würzburg)  
Optical topography in attention deficit/

- hyperactivity disorder
3. Takizawa R (Tokyo)  
NIRS application to psychiatric diagnosis and clinical evaluation
  4. Shinohara K (Nagasaki)  
Neural correlates of maternal love, paternal love and children's love for their parents

## Workshop

- WS1** Clinical use of motion logger  
October 29 (Friday) 15:00-16:15  
Venue G  
Chairpersons : Meadows R (Surrey, UK), Nakajima T (Mitaka)
1. Meadows R (Surrey, UK)  
Actigraphic analysis techniques
  2. Enomoto M (Kodaira)  
Clinical application of newly developed waist-worn actigraphy to advance effective sleep medicine for hospitalized patients
  3. Nakajima T (Mitaka)  
Abnormal awaking state detected by activity monitoring
  4. de Weerd AW (Hague)  
How to use actigraphy: limitations and value in sleep medicine

- WS2** Spinal reflex  
October 29 (Friday) 16:15-17:30  
Venue G  
Chairpersons : Nielsen JB (Copenhagen), Masakado Y (Isehara)
1. Nielsen JB (Copenhagen)  
Overview : Mind the spinal cord ; it plays a role in motor disorders
  2. Katz R (Paris)  
Spinal interneurons
  3. Masakado Y (Isehara)  
Disynaptic Ia reciprocal inhibition in stroke patients before and after therapeutic electrical stimulation
  4. Morita H (Matsumoto)  
Inappropriate modulation of antagonistic inhibition at onset of voluntary contraction in Parkinson's disease

- WS3** Neurophysiology of urination and pelvic floor muscles  
October 29 (Friday) 15:00-16:15  
Venue H

- Chairpersons : Vodusek DB (Ljubljana), Hattori T (Chiba)
1. Sakakibara R (Chiba)  
Sphincter physiology : with reference to neurologic / autonomic disorders
  2. Tello A (Mexico City)  
Neurophysiology of pelvic floor
  3. Vodusek DB (Ljubljana)  
Clinical study - Neurophysiological tests in uro-neurology
  4. Cancelled

- WS4** Restoration of injured peripheral nerve function  
October 29 (Friday) 16:15-17:30  
Venue H  
Chairpersons : Xavier de Castro JH (Porto Alegre), Chu N-S (Taipei)
1. Zhu Y (Shanghai)  
Neurophysiological measures following total C7 nerve transection
  2. Kwon HK (Seoul)  
Electrodiagnosis as a prognostic factor
  3. Valls-Sole J, Montero J (Barcelona)  
Reinnervation in facial palsy
  4. Chu N-S (Taipei)  
Outcome of toe-to-finger graft

- WS5** Drug effect on EEG  
October 30 (Saturday) 15:00-16:15  
Venue G  
Chairpersons : Saletu B (Vienna), Kinoshita T (Osaka)
1. Saletu B, Anderer P, Saletu-Zyhlarz G (Vienna)  
Drug effects on EEG topography and tomography
  2. Kinoshita T (Osaka)  
Pharmac-EEG application for the evaluation of drug effects on mental disorders.
  3. Strik W (Bern)  
Pathophysiology of thought disorders and hallucinations
  4. Tanaka H (Mibu)  
Clinical application in Neurology

- WS6** Physiology of neuromuscular junction  
October 30 (Saturday) 16:15-17:30  
Venue G  
Chairpersons : Sanders DB (Durham), Witoonpanich R (Bangkok)

1. Sanders DB (Durham)  
Neuromuscular transmission – Overview
2. Witoonpanich R (Bangkok)  
Physiology of myasthenia gravis : Effect of temperature on neuromuscular transmission
3. Oh SJ (Birmingham, Ala.)  
Lambert–Eaton myasthenic syndrome
4. Maselli RA (Davis, Calif.)  
Clinical electrodiagnostic studies of congenital myasthenic syndromes

**WS7** Ocular movement  
October 30 (Saturday) 15:00–16:15  
Venue H  
Chairpersons : Bodis–Wollner I (New York),  
Terao Y (Tokyo)

1. Bodis–Wollner I (New York)  
Saccade–related cortical activity
2. Terao Y (Tokyo)  
Saccades in neurological disorders
3. Yugeta A (Tokyo)  
DBS and saccade performance

**WS8** Respiratory physiology  
October 30 (Saturday) 16:15–17:30  
Venue H  
Chairpersons : Podnar S (Ljubljana),  
Homma I (Tokyo)

1. Homma I (Tokyo)  
Emotion and breathing
2. Podnar S (Ljubljana)  
Quantitative EMG of the diaphragm and genioglossus muscles
3. Chokroverty S (Edison, N. J.)  
Physiology of breathing during sleep

**WS9** Neurophysiology of hyperkinetic movement disorders  
October 31 (Sunday) 15:00–16:15  
Venue G  
Chairpersons : Deuschl G (Kiel),  
Shibasaki H (Kyoto)

1. Elble RJ (Springfield, Ill.)  
Neurophysiology of tremor
2. De Koning–Tijssen MA (Amsterdam)  
Myoclonus, a clinical and neurophysiological approach
3. Hallett M (Bethesda)  
Dystonia

**WS10** Studies of cranial nerve functions  
October 31 (Sunday) 16:15–17:30  
Venue G  
Chairpersons : Valls–Sole J (Barcelona),  
Misawa S (Chiba)

1. Misawa S (Chiba)  
Electrophysiology in hemifacial spasm
2. Nobrega JA (Sao Paulo)  
Studies of cranial nerve functions : trigeminal nerve
3. Valls–Sole J (Barcelona)  
Blink reflex and startle response
4. Cancelled

**WS11** Motor unit number estimation  
October 31 (Sunday) 15:00–16:15  
Venue H  
Chairpersons : Bromberg MB (Salt Lake City),  
Komori T (Saitama)

1. Bromberg MB (Salt Lake City)  
MUNE : Clinical application
2. Lee K–W (Seoul)  
Statistical motor unit number estimation (MUNE) in ALS
3. Komori T (Saitama)  
Single motor unit analysis in neuropathies

### Proposed Workshop

**PW1** The cellular mechanisms of EEG rhythms  
October 28 (Thursday) 12:30–14:15  
Venue B  
Chairpersons : Amzica F (Montreal),  
Lopes da Silva FH (Amsterdam)

1. Amzica F (Montreal)  
Contributions of neurons, glia and blood–brain barrier to slow (delta) and DC EEG potentials
2. Nunez A (Madrid)  
Network mechanisms underlying hippocampus theta oscillations
3. Lopes da Silva FH (Amsterdam)  
Brain rhythms in the 7–14 Hz frequency range : generation, dynamics and functional significance
4. Whittington M (Newcastle upon Tyne)  
Diversity in gamma and beta rhythm–generating local circuits in neocortex

**PW2** Neuromuscular ultrasound  
October 28 (Thursday) 14:15–15:30

Venue B

Chairperson : Hobson-Webb LD (Durham, N. C.)

1. Hobson-Webb LD (Durham, N. C.)  
Peripheral nerve ultrasonography in the EMG Laboratory
2. Yoon JS (Seoul)  
Ultrasonography in the diagnosis of upper extremity nerve entrapment syndromes
3. Padua L (Rome)  
Moving toward morphofunctional measures of the peripheral nerve
4. van Alfen N (Nijmegen)  
Ultrasound of the brachial plexus
5. Pillen S (Nijmegen)  
Advances in skeletal muscle ultrasound

**PW3** Contact heat-evoked potentials (CHEP)  
(Sponsored by MEDOC)  
October 28 (Thursday) 12:30-14:15  
Venue C  
Chairpersons : Hsieh S-T (Taipei)

1. Chao CC (Taipei)  
CEHP : field mapping and source imaging
2. Smith B (Scottsdale, Ariz.)  
Upper and lower limb Ad fiber conduction velocities by contact heat evoked potential stimulation (CHEPS)
3. Hsieh S-T (Taipei)  
Overview of pain-related evoked potentials on neuropathic pain
4. Anand P (London, UK)  
Heat evoked potentials for the diagnosis of neuropathic pain and hypersensitivity disorders

**PW4** The role of the medial frontal cortex in valuation and social interaction  
October 28 (Thursday) 14:15-15:30  
Venue C  
Chairpersons : Kawashima R (Sendai), Seitz RJ (Düsseldorf)

1. Kennerley S (Berkeley)  
Medial frontal cortex and decision-making : evidence from primate neuropsychology and neurophysiology
2. Seitz RJ (Düsseldorf)  
Human medial frontal cortex and value judgment
3. Kawashima R (Sendai)  
Role of the medial frontal cortex in

communication

**PW5** Neuronal oscillations in multi-scale brain networks  
October 28 (Thursday) 13:00-14:15  
Venue D  
Chairpersons : Tsuru N (Miyazaki), Canolty RT (Berkeley)

1. Canolty RT (Berkeley)  
The role of neuronal oscillations in local computation and long-range communication
2. Voytek B (Berkeley)  
Shifts in gamma phase-amplitude coupling frequency from theta to alpha over posterior cortex during visual tasks
3. Kramer M (Boston)  
The evolution of multiscale interactions during seizure
4. Tsuru N (Miyazaki)  
Theta oscillation under working memory task on MEG

**PW6** Intraoperative neurophysiologic monitoring (IONM) of spinal column surgical procedures  
October 28 (Thursday) 14:15-15:30  
Venue D  
Chairperson : Lopez JR (Palo Alto)

1. Nuwer MR (Los Angeles)  
IONM techniques useful in assessing spinal cord function in scoliosis surgery
2. Lopez JR (Palo Alto)  
Review of spinal column surgical procedures and the possible pathophysiologic mechanisms of neural injury during spinal surgery
3. Regidor I (Madrid)  
IONM techniques useful in assessing pedicle screw placement
4. Ferreira R (Sao Paulo)  
IONM of spinal roots and cauda equina

**PW7** Neonatal seizures : changing vistas in EEG vs. treatment  
October 31 (Sunday) 16:15-17:30  
Venue H  
Chairpersons : Pressler R (London, UK), Vanhatalo S (Helsinki)

1. Vanhatalo S (Helsinki)  
Neonatal brain monitoring with EEG - solutions and challenges



2. Pressler R (London, UK)  
Neurophysiologist's role in diagnosis and treatment of neonatal seizures
3. De Vos M (Leuven)  
Automated neonatal seizure detectors 1 : heuristic approach and experience
4. Stevenson N (Cork)  
Automated neonatal seizure detectors 2 : systematic approach and clinical application

### Satellite Symposium

#### Sat-S1 Nerve excitability testing : translation of basic science

October 28 (Thursday) 12:30-15:30

Venue E

Chairpersons : Burke D (Sydney),  
Kaji R (Tokushima)

1. Kaji R (Tokushima)  
Introduction to conduction block and related physiological background
2. Bergmans J (Brussels)  
Modern excitability testing as a window to nerve ion channels : an historical perspective
3. Koltzenburg M (London, UK)  
Studying mechanisms of nerve excitability control in vitro
4. Tomlinson S (Sydney)  
Nerve excitability studies in genetic neuronal ion channel disorders
5. Krarup C (Copenhagen)  
Use of animal models for exploring nerve excitability in peripheral nerves

### Luncheon Seminar

**LS1** (Sponsored by MSD)  
October 30 (Saturday) 13:00-13:50  
Venue B

**Nakagome K (Yonago)**  
Cognitive impairment in mood disorders  
Chairperson : Koga Y (Mitaka)

**LS2** (Sponsored by GlaxoSmithKline)  
October 30 (Saturday) 13:00-13:50  
Venue C

**Mochizuki H (Tokyo)**  
Gene and cell therapy for neurodegenerative disorders  
Chairperson : Mizuno Y (Tokyo)

**LS3** (Sponsored by Boehringer Ingelheim)

October 30 (Saturday) 13:00-13:50  
Venue D

**Trenkwalder C (Kassel)**  
Restless legs syndrome  
Chairperson : Ugawa Y (Fukushima)

**LS4** (Sponsored by Meiji-Seika)  
October 31 (Sunday) 13:00-13:50  
Venue B

**Kinoshita T (Osaka)**  
Definition and treatment of depression  
Chairperson : Matsunaga H (Nishinomiya)

**LE1** (Sponsored by GlaxoSmithKline)  
October 31 (Sunday) 13:30-13:50  
Venue C

**Kaji R (Tokushima)**  
Physiology and current therapy of dystonia and spasticity  
Chairperson : Kimura A (Shizuoka)

**LE2** (Sponsored by Eisai)  
November 1 (Monday) 13:00-13:50  
Venue B

**Ueki Y (Nagoya), Enomoto S (Fukushima)**  
Symposium on magnetic stimulation  
Chairperson : Ugawa Y (Fukushima)

**LE3** (Sponsored by Otsuka Pharmaceutical)  
November 1 (Monday) 13:00-13:50  
Venue C

**Inoue Y (Tokyo)**  
Diagnosis, pathogenesis and treatment of restless legs syndrome  
Chairperson : Hirata K (Tochigi)

**LE4** (Sponsored by Novartis Pharma)  
November 1 (Monday) 13:00-13:50  
Venue D

**Naitoh H (Mie)**  
EMG analysis of parkinsonian gait  
Chairperson : Nakanishi R (Kumamoto)

**L1** (Sponsored by Pfizer)  
October 31 (Sunday) 13:30-13:50  
Venue G

**Sumitani M (Tokyo)**  
Clinic for neuropathic pain (presented in Japanese)  
Chairperson : Katayama Y (Tokyo)

**L2** (Sponsored by Astellas Pharma/Sanofi-Aventis)

October 31 (Sunday) 13:30–13:50  
Venue H

**Inoue Y (Tokyo)**

Mechanism and management of insomnia (presented in Japanese)  
Chairperson : Hirata K (Tochigi)

**L3** (Sponsored by Nihon Pharmaceutical)  
November 1 (Monday) 13:00–13:50  
JSCN Venue B

Conjugate anti-ganglioside antibodies in GBS and CIDP (presented in Japanese)

**Kusunoki S (Osaka)**

Chairperson : Arimura K (Kagoshima)

### Hands-on-workshop

#### 1. EEG

October 31 (Sunday) 9:00–11:00 Venue E  
Organizer : Ikeda A (Kyoto)

HOW1-1 How do we read routine EEG in the modern imaging era?

Ikeda A (Kyoto), Lee BJ (Seoul)

HOW1-2 Initial remark : How do we read routine EEG in the modern imaging era?

Lüders HO (USA)

HOW1-3 Case presentation : EEG in epilepsy

K. Terada (Shizuoka)

HOW1-4 Case presentation

Sakamoto AC (Ribeirao Preto)

HOW1-5 Case presentation : EEG in adults

Akamatsu N (Kitakyushu)

HOW1-6 Case presentation : EEG in children

Oguni H (Tokyo)

#### 2. TMS

November 1 (Monday) 9:00–11:00 Venue B  
Organizer : Ugawa Y (Fukushima)

HOW2-1 The basic mechanisms of TMS and some application to ALS patients

Mills KR (London, UK)

HOW2-2 TBS

Rothwell1 JC (London, UK)

HOW2-3 The triple stimulation technique

Magistris MR (Geneva)

HOW2-4 A few stimulation methods and their clinical application

Ugawa Y (Fukushima)

3. EMG and nerve conduction study (NCS)  
November 1 (Monday) 14:00–16:30

Organizers : Baba M (Hirosaki),  
Kuwabara S (Chiba)

3a. NCS-1 (Venue H)

Kaji R (Tokushima), Kimura J (Iowa City)

3b. NCS-2 (Venue J)

Baba M (Hirosaki), Komori T (Saitama)

3c. EMG (Venue K)

Kohara N (Kobe), Fawcett P (Newcastle upon Tyne)

3d. Nerve excitability (Venue L)

Bostock H (London, UK), Lin CS (Sydney),  
Kuwabara S (Chiba)

### Joint Seminar with SFEMG/QEMG Group : Single fiber EMG and quantitative EMG

(Sponsored by Natus Medical)

October 28 (Thursday) Venue F

Chairpersons : Stålberg EV (Uppsala),  
Arimura K (Kagoshima)

Part I 10:00–12:00

1. Stålberg EV (Uppsala)

Jitter with concentric electrode : pitfalls and results

2. Pitt M (London, UK)

Jitter analysis in children

3. Cui LY (Beijing)

Single fiber EMG in diagnosis of myasthenia gravis

4. Sanders DB (Durham, N. C.)

Single fiber EMG in MuSK antibody positive MG

5. Oh SJ (Birmingham, Ala.)

FEMG in Lambert-Eaton syndrome

Part II 13:00–15:00

6. Zaleska E (Warsaw)

Using motor unit potentials analysis to get an insight into the motor unit



7. Sonoo M (Tokyo)  
Quantitative surface EMG
8. Bromberg MB (Salt Lake City)  
Motor unit number estimation
9. Lee K-W (Seoul)  
Quantitative EMG for motor neuron disease
10. Komori T (Saitama)  
Spinal motor neuron activity in ALS

## Discovering the brain's mysteries with Hitachi's Optical Topography System

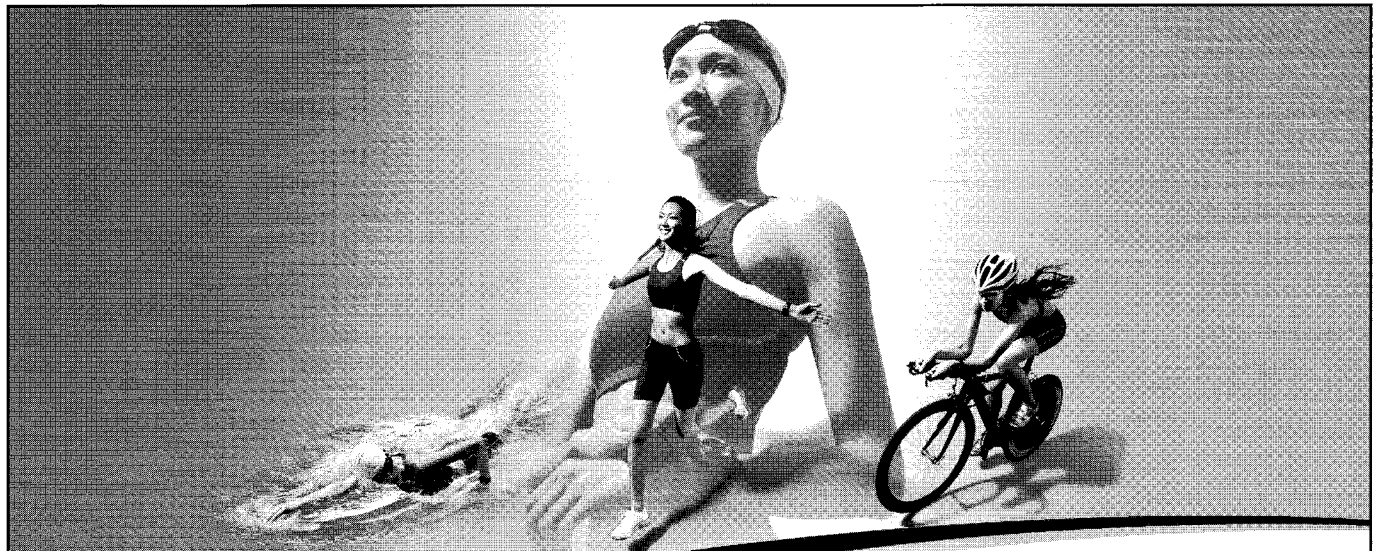
Functional near-infrared spectroscopy is the new tool in brain imaging. Now it is possible, the monitoring of hemodynamic responses to a wide range of stimuli in a controlled environment, with minimal constraints on the subject. Hitachi supporting the study of higher brain function with the ETG-4000.



 **Hitachi Medical Corporation**

Akihabara UDX, 4-14-1, Soto-Kanda, Chiyoda-ku, Tokyo, 101-0021, Japan  
International Division PHONE: 81-3-3526-8400, FAX: 81-3-3526-8420, [www.hitachi-medical.co.jp/english](http://www.hitachi-medical.co.jp/english)

**HITACHI**  
Inspire the Next



Powerful drug  
Prescription-only drug (Caution: use only pursuant to the prescription of a physician, etc.)  
—Noradrenergic and Specific Serotonergic Antidepressant— [Listed on the NHI Drug Tariff]



**REMERON® Tablets 15mg**  
<Mirtazapine>

● For "Indications", "Dosage and Administration", and "Precautions including Contraindications", please refer to the package insert.



MSD K.K.  
Kitanomaru Square, 1-13-12 Kudan-kita, Chiyoda-ku,  
Tokyo 102-8667 JAPAN

Further information is available on request  
MSD Customer support Center TEL:0120-024-961

Issued October 2010