UMF
UNIVERSITATEA DE MEDICINĂ ŞI FARMACIE
IULIU HAŢIEGANU
CLUJ-NAPOCA

FACULTY of MEDICINE
DEPARTMENT of
NEUROSCIENCES

Foundation for the Study of Nanoneurosciences and Neuroregeneration
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RoNEURO

2ND TRANSCRANIAL MAGNETIC STIMULATION SEMINAR/

AL DOILEA SEMINAR DE STIMULARE MAGNETICĂ TRANSCRANIANĂ

JUNE 16TH-18TH 2014/16-18 IUNIE 2014

RONEURO - INSTITUTE FOR NEUROLOGICAL RESEARCH AND DIAGNOSTIC/
INSTITUTUL RONEURO - CENTRUL DE CERCETARE SI DIAGNOSTIC AL BOLILOR NEURLOGICE
CLUJ-NAPOCA | ROMANIA | MIRCEA ELIADE 37

WELCOME **ADDRESS**

It is a pleasure to welcome you to the 14th Seminar: "2nd Transcranial Magnetic Stimulation Seminars", June 16th-18th, 2014. The seminar is hosted by the Department of Neurosciences, Faculty of Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy ,Cluj-Napoca and "RoNeuro" Neurological DIsorders Research and Diagnosis Center.

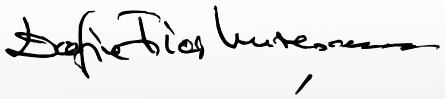
This seminar aims to establish itself as a highly useful framework that will enable local specialists to benefit from the expertise of our invited speakers who are part of associated international faculty of our Department of Neurosciences Cluj-Napoca, Romania and RoNeuro Science network. Our scope is to flourish over years and set up an educational vector aiming to meet our junior and senior specialists' needs.

In contrast to large international conferences, the intention behind these seminars is to create an informal and intimate setting, which hopefully will stimulate open discussions. As organizers, we would therefore be deeply grateful if you participate and share your time with us.

We are looking forward to your active participation in this educational event!

With consideration,

Prof. Dr. Dafin F. Mureșanu,
Chairman Department of Neurosciences, Faculty of Medicine,
University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj Napoca, Romania



ORGANIZERS

University of Medicine and Pharmacy
"Iuliu Hatieganu",
Cluj Napoca, Romania

Facultaty of Medicine
University of Medicine and Pharmacy
"Iuliu Hatieganu",
Cluj Napoca, Romania

Faculty of Medicine
Department of Neurosciences
Cluj-Napoca, Romania

Foundation for the Study of
Nanoneurosciences and
Neuroregeneration

RONEURO
Institute for Neurological
Research and Diagnostic

ORGANIZATORI

Universitatea de Medicină și Farmacie
"Iuliu Hatieganu"
Cluj-Napoca, România

Facultatea de Medicină
Universitatea de Medicină și Farmacie
"Iuliu Hatieganu"
Cluj-Napoca, România

Facultatea de Medicină
Departamentul de Neuroștiințe
Cluj-Napoca, România

Fundația pentru studiul
Nanoneuroștiințelor și
Neuroregenerării

Institutul
RONEURO
Centrul De Cercetare si
Diagnostic al Bolilor Neurologice


SPEAKERS/ LECTORI

SPEAKERS

RUDSEL
SCHOOBAAR
/NETHERLANDS

Experience
Clinical Applications Manager EMEA, Natus Medical Inc.
July 2013 – Present

Regional Sales Manager W.Europe/Nordics for Nicolet, Natus Medical
July 2012 – Present

Regional Sales Manager W.Europe/Nordics , CareFusion
August 2011 – July 2012

Clinical & Commercial Marketing Manager, CareFusion
February 2009 – August 2011
Clinical Applications Specialist NeuroCare, VIASYS Healthcare
August 2005 – February 2009

Account manager Nicolet, Stöpler
1993 – 2005 Utrecht Area, Netherlands
Sales and applications of Nicolet neurodiagnostics in the Netherlands.
Sales Engineer, Nicolet Biomedical Inc.
1991 – 1993 Scherpenzeel, Utrecht.
Sales and applications of Nicolet neurodiagnostics in the Netherlands.

Chief Technician Dept. of Clinical Neurophysiology, UMC Utrecht
1984 – 1991 Utrecht Area, Netherlands

Managed the clinical organisation of the Dept. of Neurophysiology together with Prof. A.C. van Huffelen (head of the sciencegroup for neurophysiology at the UMC).

Studies
Radboud Universiteit Nijmegen, Neurophysiology Technician, C-Technician
1977 – 1984

Peter Stuyvesant College
1975 – 1977

Other Activities and Societes: Member of NVLKNF (Dutch Neurophysiology Technicians Society). Editor for Hoofdlijnen (journal of the NVLKNF) for 3 years.

LECTORI

RUDSEL
SCHOOBAAR
/NETHERLANDS

EXPERIENTĂ PROFESIONALĂ

Clinical Applications Manager EMEA, Natus Medical Inc.
Iulie 2013 – Prezent

Regional Sales Manager W.Europe/Nordics for Nicolet, Natus Medical
Iulie 2012 – Prezent

Regional Sales Manager W.Europe/Nordics, CareFusion
August 2011 – Iulie 2012

Clinical & Commercial Marketing Manager, CareFusion
Februarie 2009 – August 2011

Clinical Applications Specialist NeuroCare, VIASYS Healthcare
August 2005 – Februarie 2009

Account manager Nicolet, Stöpler
1993 – 2005 Utrecht Area, Netherlands
Vanzare si implementare de aplicatii Nicolet Neurodiagnostics in Olanda
Sales Engineer, Nicolet Biomedical Inc.
1991 – 1993 Scherpenzeel, Utrecht Area, Netherlands.
Vanzare si implementare de aplicatii Nicolet Neurodiagnostics in Olanda

Chief Technician Dept. of Clinical Neurophysiology, UMC (Universitair Medisch Centrum), Utrecht
1984 – 1991 Utrecht Area, Netherlands
Managementul organizarii clinice a Departamentului de Neurofiziologie, impreuna cu Prof. A.C van Huffelen (coordonatorul grupului stiintific de neurofiziologie la UMC Utrecht)

Studii

Radboud Universiteit Nijmegen, Neurophysiology Technician, C-Technician
1977 – 1984
Peter Stuyvesant College
1975 – 1977
Alte Activități și societăți: Membru al NVLKNF (Dutch Neurophysiology Technicians Society). Editor pentru Hoofdlijnen (journal of the NVLKNF) pe o perioada 3 ani.

SPEAKERS

MATTHIAS
KIENLE
/DENMARK

PROFESSIONAL EXPERIENCE:

January 2011- present

- MagVenture A/S Farum Denmark, International Application Specialist
- My duties include user training on device handling and clinical application in Neurology, Psychiatry, Brain Research, Neurorehabilitation
- Furthermore, I'm responsible in establishing reference sites for Magnetic Stimulation in Diagnostic, Research and Treatment

August 2007 – December 2010

- Alpine Biomed GmbH Langenfeld Germany, Product Manager/ Specialist for NeuroDiagnostic
- I was responsible for user training on device handling and clinical application in Neurology, NeuroSurgery and Neurorehabilitation (EMG, NCV, EP, ERP, IOM, EEG, Sleep)

September 1998 – August 2007

- Medtronic GmbH Dusseldorf Germany, Product Manager/ Specialist for NeuroDiagnostic
- I was responsible for user training on device handling and clinical application in Neurology, NeuroSurgery and Neurorehabilitation (EMG, NCV, EP, ERP, IOM, EEG, Sleep)

September 1996 – August 1998

- Schwamedico GmbH Giessen Germany, Product Specialist for Acupuncture, TENS

January 1993 – August 1996

- ProScience Research Center Linden Germany, Assistant for Neuropharmacological Research

March 1987 – December 1992

- University Hospital Giessen, Nurse Neurosurgery Intensive Care Unit

EDUCATION/ QUALIFICATION

2002 – Physiotherapy: Basic Education Munich School of Physioterapy
1993 – Graduation: Diplom – Ingenieur FH Biomedizinische Technik, Fachochschule Giessen-Friedberg

LECTORI

MATTHIAS
KIENLE
/DENMARK

EXPERIENȚĂ PROFESIONALĂ

Ianuarie 2011- prezent

- MagVenture A/S Farum Denmark, International Application Specialist
  - Responsabilitățile mele includ instructajul privind manevrarea echipamentelor și aplicațiilor din domeniile Neurologiei, Psihiatriei, Brain Research, Neuroreabilitare
  - În plus, sunt responsabil cu identificarea site-urilor de referință pentru Stimularea Magnetică în domeniile diagnosticului, cercetarii și tratamentului

August 2007 – Decembrie 2010

- Alpine Biomed GmbH Langenfeld Germany, Product Manager/ Specialist Neurodiagnostic
  - Responsabil cu instructajul utilizatorilor privind manevrarea echipamentelor și aplicațiilor din domeniile Neurologiei, Neurochirurgiei și Neuroreabilitării (EMG, NCV, EP, ERP, IOM, EEG, Somnografie)

Septembrie 1998 – August 2007

- Medtronic GmbH Dusseldorf Germany, Product Manager/ Specialist Neurodiagnostic
  - Responsabil cu instructajul privind manevrarea echipamentelor și aplicațiilor din domeniile Neurologiei, Neurochirurgiei și Neuroreabilitării (EMG, NCV, EP, ERP, IOM, EEG, Somnografie)

Septembrie 1996 – August 1998

- Schwamedico GmbH Giessen Germany, Product Specialist Acupuncture, TENS

Ianuarie 1993 – August 1996

- ProScience Research Center Linden Germany, Assistant for Neuropharmacological Research

Martie 1987 – Decembrie 1992

- University Hospital Giessen, Nurse Neurosurgery Intensive Care Unit

EDUCAȚIE/ CALIFICĂRI

2002 – Fizioterapie: Basic Education Munich School of Physioterapy
1993 – Absolvire: Diploma Ingenieur FH Biomedizinische Technik, Fachochschule Giessen-Friedberg

SCIENTIFIC **PROGRAM/**
PROGRAM **ȘTIINȚIFIC**

SCIENTIFIC **PROGRAM**

MONDAY, JUNE 16TH 2014

09:00 – 09:10	Welcome address
09:10 – 11:30	Motor Evoked Potentials (MEPs), Central Motor Conduction Times (CMCTs), Cortical Silent Period (CSP) – theory (Matthias Kienle, Research Lab)
	ENG-EMG settings (Rudsel Schoobaar, EMG-TMS Lab)
11:30 – 12:00	Coffee break
12:00 – 14:00	ENG-EMG-TMS settings (Matthias Kienle & Rudsel Schoobaar, EMG-TMS Lab)
14:00 – 14:30	Lunch
14:30 – 16:00	Motor Nerve Conduction Study (MNC) & MEP on healthy volunteers (Matthias Kienle – hands-on session, EMG-TMS Lab)
16:00 – 16:15	Coffee break
16:15-17:30	Motor Nerve Conduction Study (MNC) & MEP on healthy volunteers (Matthias Kienle – hands-on session, EMG-TMS Lab)
20:30	Welcome dinner (Ken Sai Events Room, City Plaza Hotel)

TUESDAY, JUNE 17TH 2014

09:00 – 11:30	rTMS Protocols used in Neurorehabilitation – theory (Matthias Kienle, Research Lab)
	Visual Evoked Potentials (VEPs) & Auditory Evoked Potentials (AEPs) settings (Rudsel Schoobaar, EMG-TMS Lab)
11:30 – 12:00	Coffee break
12:00 – 14:00	ENG-EMG-TMS settings (Matthias Kienle & Rudsel Schoobaar, EMG-TMS Lab)

PROGRAM **ȘTIINȚIFIC**

LUNI, 16 IUNIE 2014

09:00 – 09:10	Cuvânt de bun venit
09:10 – 11:30	Noțiuni teoretice despre Potențiale Evocate Motorii (PEM), Timpi de Conducere Motorie Centrală (TCMC), Perioada de Liniște Electrică Corticală (PLC) (Matthias Kienle, Laboratorul de Cercetare)
	Setări ENG-EMG (Rudsel Schoobaar, Laboratorul de EMG-TMS)
11:30 – 12:00	Pauză de cafea
12:00 – 14:00	Setări ENG-EMG-TMS (Matthias Kienle și Rudsel Schoobaar, Laboratorul de EMG-TMS)
14:00 – 14:30	Pauză de masă
14:30 – 16:00	Măsurarea vitezelor de conducere motorie (VCM), a latențelor și amplitudinilor PEM la voluntari sănătoși (Matthias Kienle – sesiune practică, Laboratorul de EMG-TMS)
16:00 – 16:15	Pauză de cafea
16:15-17:30	Măsurarea vitezelor de conducere motorie (VCM), a latențelor și amplitudinilor PEM la voluntari sănătoși (Matthias Kienle – sesiune practică, Laboratorul de EMG-TMS)
20:30	Cină (Ken Sai Events Room, Hotel City Plaza)

MARȚI, 17 IUNIE 2014

09:00 – 11:30	Protocoale de TMS utilizate în neuroreabilitare – discuții teoretice (Matthias Kienle, Laboratorul de Cercetare)
	Setări ale potențialelor evocate vizuale (PEV) și auditive (PEA) (Rudsel Schoobaar, Laboratorul de EMG-TMS)
11:30 – 12:00	Pauză de cafea

SCIENTIFIC **PROGRAM**

14:00 – 14:30	Lunch
14:30 – 16:45	MNC study, F waves measurement, MEPs, CMCTs for upper & lower limbs in Multiple Sclerosis (Matthias Kienle, Rudsel Schoobaar & participants – hands-on session, EMG-TMS Lab)
16:45 – 17:00	Coffee break
17:00 – 17:30	Session of free discussions
20:00	Dinner (Hanul Dacilor Restaurant)

WEDNESDAY, JUNE 18TH 2014

09:00 – 11:30	rTMS treatment: central rTMS in Migraine (Matthias Kienle – hands-on session, EMG-TMS Lab) rTMS treatment: peripheral rTMS in Medullary Lesions (Matthias Kienle,– hands-on session, EMG-TMS Lab)
11:30 – 12:00	Coffee break
12:00 – 14:00	rTMS treatment: Double Associative Stimulation (DAS= peripheral rTMS, followed by central rTMS) in Peripheral Facial Palsy & Trigeminal Neuralgia (Matthias Kienle – hands-on session, EMG-TMS Lab)
14:00 – 14:30	Lunch
14:30 – 16:00	rTMS diagnosis & treatment: peripheral rTMS in Transverse Myelitis (Devic Disease)
16:00 – 16:15	Coffee break
16:15 – 16:30	Conclusions of the program
16:30 – 17:30	Internal meeting for future research projects

PROGRAM **ȘTIINȚIFIC**

12:00 – 14:00	Setări ENG-EMG-TMS (Matthias Kienle și Rudsel Schoobaar, Laboratorul de EMG-TMS)
14:00 – 14:30	Pauză de masă
14:30 – 16:45	Măsurarea VCM, a undelor F, latențelor PEM și TCMC corespunzătoare membrelor superioare și inferioare la un pacient cu scleroză multiplă (Matthias Kienle, Rudsel Schoobaar și cursanți – sesiune practică, Laboratorul de EMG-TMS)
16:45 – 17:00	Pauză de cafea
17:00 – 17:30	Discuții libere
20:00	Cină (Hanul Dacilor Restaurant)

MIERCURI, 18 IUNIE 2014

09:00 – 11:30	Terapie rTMS: rTMS centrală în migrenă (Matthias Kienle – sesiune practică, Laboratorul de EMG-TMS) Terapie rTMS: rTMS periferică în leziuni medulare (Matthias Kienle,– sesiune practică, Laboratorul de EMG-TMS)
11:30 – 12:00	Pauză de cafea
12:00 – 14:00	Terapie rTMS: Dublă Stimulare Asociativă (DAS= rTMS periferică, urmată de rTMS centrală) la un pacient cu paralizie facială periferică și nevralgie de trigemen (Matthias Kienle – sesiune practică, Laboratorul de EMG-TMS)
14:00 – 14:30	Pauză de masă
14:30 – 16:00	Diagnostic și terapie rTMS: rTMS periferică în mielita transversă (boala Devic)
16:00 – 16:15	Pauză de cafea
16:15 – 16:30	Concluzii
16:30 – 17:30	Discuții despre proiecte de cercetare

ABSTRACT/ REZUMAT

2ND TRANSCRANIAL MAGNETIC STIMULATION SEMINAR

Transcranial magnetic stimulation (TMS) is a non-invasive method of diagnosis and treatment in different neurological diseases.

Single pulse TMS is used in diagnosis of motor areas and pyramidal tracts lesions, while repetitive TMS (rTMS) has a variety of applications in neurological and psychiatric disorders (e.g. spasticity and aphasia post-stroke, cognitive problems, migraine, depression, anxiety).

If the previous event was focused on TMS Principle and Basics (March 24th-26th 2014), the actual training is dedicated to Diagnosis and Treatment Use of TMS.

After learning the theoretical concepts about Motor Evoked Potentials (MEPs), Central Motor Conduction Times (CMCTs) and Cortical Silent Period (CSP), we will establish the protocols of paraclinical examination using single pulse TMS & Nerve Conduction Studies (NCS).

Secondly we will discuss the rTMS protocols in Neurorehabilitation (aphasia, depression, anxiety, cognitive troubles, migraine, tension headache, peripheral facial palsy, diabetes neuropathy, spastic hemiparesis, Parkinson's disease).

The third stage will consist of clinical cases (hands-on sessions), with rTMS diagnosis and treatment application.

In the final discussion, future projects will be developed, in clinical and research field.

RUDSEL SCHOOBAAR /NETHERLANDS

MATTHIAS KIENLE /DENMARK

AL DOILEA SEMINAR DE STIMULARE MAGNETICĂ TRANSCRANIANĂ

Stimularea magnetică transcraniană (TMS) este o metodă neinvazivă de diagnostic și tratament în diferite boli neurologice.

TMS cu puls unic este utilizată pentru diagnosticul leziunilor ariilor motorii și a tracturilor piramidale, în timp ce stimularea magnetică repetitivă (rTMS) are aplicații variate în patologia neurologică și psihiatrică (ex. spasticitate și afazie după accident vascular cerebral/AVC, tulburări cognitive, migrenă, depresie, anxietate).

Dacă manifestarea anterioară s-a centrat pe detalierea principiului de funcționare și a noțiunilor de bază ale TMS (24-26 martie 2014), cursul de față este dedicat utilizării TMS în scop diagnostic și terapeutic.

După predarea unor concepte teoretice despre Potențiale Evocate Motorii (MEP), Timpi de Conducere Motorie Centrală (TCMC) și Perioadă de Liniște Electrică Corticală (PLC), vom stabili protocoale de examinare paraclinică în succesiunea electroneurografie (ENG) – TMS cu puls unic.

Ulterior vom discuta protocoale de rTMS folosite în recuperarea unor afecțiuni specifice (afazie post-AVC, depresie, anxietate, tulburări cognitive, migrenă, cefalee de tensiune, pareză facială periferică, neuropatie diabetică, hemipareză spastică, boală Parkinson).

În a treia etapă vom aplica rTMS în scop diagnostic și/sau terapeutic (cazuri clinice).

În final se vor aborda proiecte clinice și de cercetare.

RUDSEL SCHOOBAAR /NETHERLANDS

MATTHIAS KIENLE /DENMARK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