WFNS Neurosurgical Technology Committee

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WFNS Neurosurgical Technology Meeting

Intraoperative Visualization of the Brain and its Pathologies

in cooperation with CURAC
“Deutsche Gesellschaft für Computer- und Roboterassistierte Chirurgie” e.V.

WHEN:
February 8-9, 2013

WHERE:
Auditorium
International Neuroscience Institute-Hannover
Rudolf-Pichlmayr Str. 4
D-30625 Hannover, Germany
Faculty

Listed in the order of the lectures

Prof. Dr. K. Hongo
Neurosurgery
Shinshu University School of Medicine
Matsumoto, Japan

Prof. Dr. P. Rabischong
Anatomy
University of Montpellier
Montpellier, France

Prof. Dr. C. Hartmann
Neuropathology
Hannover Medical School
Hannover, Germany

Prof. H. Lanfermann
Neuroradiology
Hannover Medical School
Hannover, Germany

Dr. P. Raab
Neuroradiology
Hannover Medical School
Hannover, Germany

Prof. Dr. U. Ernemann
Neuroradiology
University Hospital Tübingen
Tübingen, Germany

PD Dr. A. Stadlbauer
Neurosurgery
University of Erlangen-Nürnberg
Erlangen, Germany

Dr. F. Busse
Philips Medical Systems
Best, Niederlande

N.N.
Siemens Healthcare
Erlangen, Germany

Prof. Dr. A. Nabavi, MaHM
Neurosurgery
University Hospital Schleswig-Holstein, Campus Kiel
Kiel, Germany

Prof. Dr. V. Beneš
Neurosurgery
Military University Hospital
Prague, Czech Republic

Prof. Dr. G. Unsgård
Neurosurgery
St. Olav’s University Hospital
Trondheim, Norway

Dr. P. Solleder
Karl Storz
Tuttlingen, Germany

Prof. Dr. A. Potapov
Neurosurgery
Burdenko Institute
Moscow, Russia

PD Dr. M. Kirsch
Neurosurgery
University Hospital Carl Gustav Carus
Dresden, Germany
Prof. Dr. H. Hahn  
Medical Image Computing  
Fraunhofer-MEVIS  
Bremen, Germany

Dr. R. Guckler  
Carl Zeiss Meditec  
Oberkochen, Germany

Prof. Dr. W. Stummer  
Neurosurgery  
University Hospital Münster, Münster, Germany

Prof. Dr. A. Giese  
Neurosurgery  
Johannes Gutenberg University  
Mainz, Germany

Prof. Dr. G. Schackert  
Neurosurgery  
University Hospital Carl Gustav Carus  
Dresden, Germany

Prof. Dr. D. Merhof  
Visual Computing  
University of Konstanz  
Konstanz, Germany

U. Mezger  
Brainlab  
Feldkirchen, Germany

Prof. Dr. A. Melzer  
Applied Biomedical Engineering  
University of Dundee  
Dundee, Scotland

Prof. Dr. H. Iseki  
Neurosurgery & Advanced Biomedical Engineering and Science  
Tokyo Women’s Medical University  
Tokyo, Japan

Prof. Dr. Y. Muragaki  
Neurosurgery & Advanced Biomedical Engineering and Science  
Tokyo Women’s Medical University  
Tokyo, Japan

U. Kabelitz & F. Mühler  
Intraoperative MRI  
International-Neuroscience Institute-Hannover  
Hannover, Germany

Prof. Dr. R. Fahlbusch  
Neurosurgery  
International-Neuroscience Institute-Hannover  
Hannover, Germany

Prof. Dr. A. Samii  
Neurosurgery  
International-Neuroscience Institute-Hannover  
Hannover, Germany

Industrial Participants:  
(in alphabetic order)

Brainlab

Philips

Siemens

Storz

Zeiss
Scientific Program

Friday, February 8, 2013

Moderation: R. Fahlbusch, A. Samii

09:00 Welcome and Introduction: Neurosurgical perspective on intraoperative visualization
A. Samii

09:30 Master-slave manipulators for neurosurgical procedures
K. Hongo

10:00 Anatomical correlates of intraoperative visualization
P. Rabischong

10:30 Intraoperative visualization – the neuropathological perspective
C. Hartmann

11:00 Coffee Break

11:30 MR- and MR-spectroscopy – status quo and perspective
P. Raab / H. Lanfermann

12:00 Interpretation of iop MR images
U. Ernemann

12:30 MR-spectroscopy and PET in intraoperative navigation
A. Stadlbauer

13:00 Paradigm of MR guided therapy
F. Busse, Philips

13:30 Lunch Break

14:30 Future perspectives of MRI in diagnostics and therapy
NN, Siemens

15:00 The application of 1.5T intraoperative MRI
A. Nabavi

15:30 The application of 3T intraoperative MRI
V. Benes

16:00 3D ultrasound: experience with new devices
G. Unsgard

16:30 Coffee Break

17:00 Intraoperative endoscopic visualization beyond “white-light” application
P. Solleder, Storz

17:30 Laser fluorescence spectroscopy in brain tumor surgery
A. Potapov
18:00 Multimodal optical spectroscopic imaging of nervous system pathologies
M. Kirsch

18:30 Segmentation for intraoperative use
H. Hahn

Saturday, February 9, 2013

Moderation: R. Fahlbusch, A. Samii

08:30 Photonics in the operating room
R. Guckler, Zeiss

09:00 Update on 5-ALA optical imaging and its potential for photodynamic therapy
W. Stummer

09:30 Multi-photon excitation fluorescence microscopy and optical coherence tomography
A. Giese

10:00 Intraoperative optical imaging of intrinsic signals for delineation of active functional brain areas
G. Schackert

11:00 Coffee Break

11:30 Developments in visualization and navigation
U. Mezger, Brainlab

12:00 Robotics in the intraoperative MR environment
A. Melzer

12:30 Operating room: challenges in the workflow of iop-MR guided surgery
Y. Muragaki, H. Iseki

13:00 Presentation of Conclusions from Mini-Workshop for MTRAs (parallel session 10:00 – 12:00)
“The Integration of MTRA in the workflow of iop-MR guided surgery”
U. Kabelitz, F. Mühler

13:15 Final Discussion and elaboration of conclusions for the WFNS
Moderation: R. Fahlbusch, A. Samii

14:00 Farewell
Social Program

07.02.2013

20:00 - 22:00  Lower Saxonian Dinner for all invited speakers and registered participants

- Departure from INI by bus at 19:30
- Departure from restaurant by bus at 22:15

08.02.2013

19:00 – 19:30  Refreshments at INI Foyer

Free evening for participants to visit Hannover

09.02.2013

14:00  Lunch at INI Foyer