IOIS Scientific Program

Sunday, February 24, 2013

7:00-9:00 pm  Welcome Remarks/Reception  Ballroom Lobby
Mark Wrighton
Chancellor, Professor of Chemistry, Washington University

Monday, February 25, 2013

7:30-8:30 am  Breakfast Seminars - I, II, III  Ballroom A & B
Tammie Benzinger, Moderator

Breakfast Seminar I
Intraoperative CNS Imaging Nuances
Tammie Benzinger

Breakfast Seminar II
Physiology of spontaneous brain activity and its use in clinical neuroscience
Maurizio Corbetta

Breakfast Seminar III
Overview of MRI Physics in the Intraoperative Environment
Jason Stafford

8:30-8:45 am  Refreshment Break / Exhibits & Posters  Pre-Function & Ballroom C

8:45-10:25 am  Session I  Ballroom A & B
Christopher Nimsky & Andreas Unterberg, Moderators

8:45-8:50 am  Welcome to IOIS Meeting
Rene Bernays

8:50-9:15 am  Welcome to St. Louis and St. Louis History
Rich Bucholz & Mike Chicoine

Perspective Talks

9:15-9:50 am  Past, Present and Future of Intraoperative Imaging
Ferenc Jolesz

9:50-10:25 am  Extent of Resection in Times of 5ALA Guided Resection and ioMRI – What Matters?
Joerg-Christian Tonn

10:25-10:45 am  Refreshment Break / Exhibits & Posters

10:45-12:30 pm  Session II - Brain Tumor Resection  Ballroom A & B
Jeff Weinberg & Mike Schulder, Moderators

10:45-11:05 am  Gliomas in High Field MRI
Ganesh Rao

11:05-11:25 am  Gliomas in Low Field MRI
Christian Senft
11:25-11:45 am  Gliomas in CT  
Alex Olivi

11:45-12:30 pm  Session II Abstract Presentations  
Michael Lim & Mustafa Aziz Hatiboglu, Moderators

Rapid, label-free detection of microscopic brain tumor boundaries with stimulated Raman scattering microscopy – Daniel Orringer

Intraoperative magnetic resonance image system for glioma surgeries. buenos aires adventist clinic experience. preliminary report. – Roberto Herrera

Glioma Surgery Under Routine intraoperative MRI Guidance - Effects on Resection Extent and Strategy in a Prospective Volumetric Single-Center Cohort – Moritz Scherer

Magnetic resonance FLAIR and T2 tumor volumes obtained intraoperatively compared to post-operative volumes in high and low grade gliomas. – Randy Jensen

12:30-1:30 pm  LUNCH & Host Programs Overview  
St. Louis University & Washington University

1:30-3:15 pm  Session III – Building an ioMRI Program  
Mario Ammirati & David Roberts, Moderators

1:30-1:50 pm  Building and Development of ioMRI Program  
Xiaolei Chen

1:50-2:10 pm  Integration of New Imaging Modalities  
Sujit Prabhu

2:10-2:30 pm  Fiscal Sense of Using ioMRI for Resection of Brain Tumors  
Ralph Dacey

2:30-3:15 pm  Session III Abstract Presentations  
Albert Kim-Moderator

Information-Guided Surgery of Intracranial Gliomas: Overview of an Advanced Intraoperative Technology  
-Yoshiro Muragaki

Awake intracranial surgery with low field intraoperative MRI guidance  
– Sal Zavarella

Awake Craniotomy with Intraoperative Magnetic Resonance Imaging for Gliomas: Analysis of 42 Cases – Shumaila Khawaja

Combined high-field intraoperative magnetic resonance imaging-and awake craniotomy for maximizing safe glioma resection – Aravind Somasundaram

3:15-3:35 pm  Refreshment Break / Exhibits & Posters
3:35-5:00 pm  
**Session IV**  
John Honeycutt & Costas Hadjipanayis, Moderators

3:30-3:50 pm  
**Characterizing Brain Shift Lesions from 5 Years iMRI Utilization**  
Ivan Ng

3:50-5:00 pm  
**Session IV Abstract Presentations**

- Intraoperative computed tomography image-integrated with navigation for the pedicle screw insertion – Qingchang Li
- Intraoperative MRI is a Feasible Adjunct for Resection of Intramedullary Spinal Lesions - Brian Williams
- Intraoperative MRI aids decision making in Chiari I decompression: Two case reports. – Carlo de Luna
- Optimization of anatomical and dynamic iMRI sequences during Chiari I decompression for adults – Michael Chicoine
- Intraoperative Use of a Portable Full Body 32 Slice CT Scanner in Neurosurgery - Initial Experience – Jan Hradil

5:00 pm  
**Close of Session-Company Sponsored Programs**

**Tuesday, February 26**

7:15-8:15 am  
**Breakfast Seminars - IV**  
Daniel Orringer, Moderator

- **Pituitary**
  Ajhaya N. Jha

- **ICG for Aneurysms**
  Peter Nakaji

- **Stroke Management**
  Colin Derdeyn

8:30-10:30 am  
**Session V – Adjunct Technology**  
Mike Chicoine & Moshe Hadani, Moderators

8:30-8:35 am  
**Introduction of Keynote Speaker**
Michael Schulder

8:35-9:15 am  
**Keynote Speaker**

- Accuracy of DBS electrode placement using intraoperative CT without MER  
  Kim Burchiel

9:20-9:40 am  
**LITT – Epilepsy**
Dan Curry
9:40-10:00 am  Laser Interstitial Thermal Therapy
   Veronica Chiang

10:00-10:30 am  PET Integrated Resection Techniques: Chasing the Malignant Tumor
   Jorg-Christian Tonn

10:30-10:45 am  Refreshment Break / Exhibits & Posters

10:45:12:20 am  Session VI – Spine Surgery In ioCT
   Mike Matsumae & Ivan Ng, Moderators

10:45-11:05 am  Intraop CT for Spine Surgery
   Eric Sipos

11:05-11:25 am  Risk to Users/Patients from Radiation in ioCT
   Rebecca Howell

11:25-12:05 pm  Session VI Abstract Presentations
   Michele Aizenberg & Randy Jensen, Moderators

   Our 5 year Experience with intra-operative Ultrasound and Neuro-navigation in one-
   Mohammed Awad

   Intraoperative Magnetic Resonance imaging for the Resection of Intra axial Brain
   Lesions. Decade of experience using the low Field MRI Polestar N10-20-30
   – Zvi Cohen

   Usefulness of intraoperative magnetic resonance ventriculography during
   endoscopic third ventriculostomy – Pawel Tabakow

   Usefulness of Intraoperative magnetic resonance cystography in endoscopic
   treatment of intracranial arachnoid cyst – Marcin Czyz

12:05-1:20 pm  Lunch and IOIS Business Meeting

1:30 – 3:20 pm  Session VII – IOMRI in Skull Base Surgery: Point/Counter Point
   Zvi Cohen & Rich Bucholz, Moderators

1:30-1:50 pm  Why it Is Necessary
   Mike Chicoine

1:50-2:10 pm  Why it Is Not Needed
   Carl Heilman

2:10-2:30 pm  Low Field MRI for Pituitary and Glioma Surgery
   Claus Andersen

2:30-3:20 pm  Session VII Abstract Presentations
   John Ruge, Moderator

   Vascular neurosurgery: sense and non-sense of intraoperative MRI considering
   different pathologies. – Ralph Konig

   AVM surgery in IMRI theatre: results and techniques. – Jayant Daniel Thorat
Evaluation of intraoperative high-field MRI for resection control in elective transsphenoidal pituitary adenoma surgery in 110 consecutive patients – Andreas Unterberg

Combined high-field intraoperative magnetic resonance imaging and endoscopy improve extent of resection and progression-free survival for pituitary adenomas – Peter Sylvester

3:20-3:40 pm Refreshment Break / Exhibits & Posters

3:40-5:00 pm Session VIII
Rudolf Fahlbusch & Ajaya N. Jha, Moderators

3:40-4:00 pm Multimodality Navigation Supporting Intraoperative Imaging
Christopher Nimsky

4:00-5:30 pm Session VIII Abstract Presentations

Maximizing the extent of resection in glioblastoma surgery: 5-ALA versus intraoperative MRI – Constantin Roder

Impact of the Combination of 5-Aminolevulinic Acid-Induced Fluorescence With Intraoperative Magnetic Resonance Imaging-Guided Surgery for Glioma – Matsumae Mitsunori

Evaluation of sensitivity and specificity of intraoperative MRI and 5-aminolevulenic acid based on a histopathological assessment – Jan Coburger

Resection of glioblastoma with a concurrent use of 5-aminolevulinic acid fluorescence and intraoperative MRI: preliminary results – Jong Hee Chang

Treatment of Difficult-to-Access High Grade Gliomas using Laser Interstitial Thermal Therapy under Real Time MR-Thermography Guidance – Alireza Mohammadi

Magnet Resonance Imaging-Guided Focused Laser Interstitial Thermal Therapy for intracranial lesions: Single-Institution Case Series – Ammar Hawasli

Frameless deep brain electrode placement using Intraoperative O Arm Imaging and microelectrode recording - Richard Bucholz

Real-time MRI guided implantation of deep brain stimulator electrodes: safety and accuracy - Ashwin Viswanathan

Intraoperative magnetic resonance imaging may reduce long-term cost and improve quality of life for pituitary adenoma patients - Peter Sylvester

5:30 pm Close of Session

6:45p-9:30p Social Dinner – St. Louis Art Museum

Note: Bus Transportation provided to and from Hotel. Board buses at 6:15pm at front entrance of hotel.
Wednesday, February 27

8:00-11:30 pm  Session IX – Anesthesia and Additional Topics
                Moshe Hadani & Arya Nabavi, Moderators

8:00 –8:20 am  Anesthesia
                Sergio Bergese

8:20-8:40 am  Vascular Pathology and Intraop Imaging Vascular Suites
                Dave Langer

8:40-9:00 am  iMRI in Pediatrics
                Dave Limbrick

9:00-9:40 am  Session IX Abstract Presentations
                Taro Kaibara, Moderator

Anatomic Considerations for Somatotopic Organization of the Descending Motor Fibers: A Pictorial Essay – Jackson Hamilton

Morphology meets function: the synthesis of intraoperative MRI and neurophysiological monitoring – Ralph König

Deformable Anatomic Templates Improve Analysis of Eloquent Area Gliomas with Minimal Mass Effect – Jackson Hamilton

intraoperative mri and neurophysiological monitoring in gliomas located in eloquent brain areas. preliminary report – Roberto R. Herrera

9:40-10:00 am  Refreshment Break / Exhibits & Posters

10:00-11:30 am  Session X
                Arya Nabavi, Moderator

10:00-10:25 am  Future Aspects of iop MRI
                Rudolf Fahlbusch

10:25-11:05  Session X Abstract Presentations
                Gregory Zipfel, Moderator

A New iMRI Suite Design – Steve Hushek

The multidisciplinary use of a Hybrid OR – Stefan Roehrler

First demonstration of ceiling-mounted intraoperative CT theatre – Jeff Winter

Vascular neurosurgery in a multidisciplinary used Hybrid OR – Stefan Roehrler

11:05-11:30 pm  Awards, Announcements & Vice Presidential Closing Remarks
                Moshe Hadani