

AMERICAN ACADEMY OF NEUROLOGICAL SURGERY

SCIENTIFIC PROGRAM AGENDA 2013

THURSDAY, SEPTEMBER 26

730-735 Opening Remarks (Griffith Harsh)

735- 805 Point-counterpoint session: (Moderator: Frederick Lang)

Maximal preoperative imaging versus intraoperative mapping for brain tumor resection

Guy McKhann: Maximum imaging is wasteful and intraoperative mapping provides superior information.

Fred Barker: Know what you are getting into before you step into the operating room.

Glioma Therapeutics (805-1020) (Moderator: Anil Nanda)

805-815	Ian Pollack	Updated results of a pilot study to evaluate the effects of vaccinations with HLA-A2-restricted glioma antigen peptides in combination with Poly-ICLC for children with newly diagnosed and recurrent gliomas
817-827	John Sampson	Memory responses govern dendritic cell migration to vaccine-site draining lymph nodes resulting in enhanced anti-tumor efficacy
829-839	E. Antonio Chiocca	Cytomegalovirus contributes to glioblastoma in the context of tumor suppressor mutations
841-851	Mitchel Berger	The role of physiological and metabolic imaging in planning surgical resection for glioma
853-903	Andrew Sloan	Targeting glioma initiating cells in GBM: A randomized phase 0/11 study targeting the sonic hedgehog signaling pathway
905-915	Maciej Lesniak	Intranasal delivery of mesenchymal stem cells prolongs the survival of mice with experimental brain tumors
917-927	David Baskin	Treatment of brain cancers with targeted nanosyringes for superselective delivery and inhibition of cellular pumps

Advances in Epilepsy and Functional Neurosurgery

929-939	Kim Burchiel	Deep brain stimulation in globus pallidus internus entrains local neuronal activity
941-951	Theodore Schwartz	Probing the epileptic network with calcium indicators and multi-unit electrode arrays.
953-1003	Emily Levin	Intraoperative electrocorticography as a tool for the understanding of movement disorders: Principles and experience in 125 patients
1005-1015	Rajiv Midha	Motor axon attrition and misdirection contribute to behavioral deficits in rat sciatic neuroma in continuity injuries

1015-1020 **Discussion (Anil Nanda to lead)**

1020-1040 **BREAK**

Clinical Trials in Neurosurgery (1042-1158) (Moderator: Murat Gunel)

1042-1052	Issam Awad	Minimally invasive surgery plus TPA for intracerebral hemorrhage evacuation: Surgical matters that matter and the road to Phase III trial
1054-1104	David Bervini	The early risk of hemorrhage in patients with unruptured brain arteriovenous malformations: A prospective cohort study
1106-1116	Robert Spetzler	The Barrow ruptured aneurysm trial: 6-year results
1118-1128	Robert Harbaugh	Bayesian evidence based medicine
1130-1140	Nicholas Theodore	Posterior vertebral column subtraction osteotomy for the treatment of tethered cord syndrome: A prospective outcome study
1142-1147	Douglas Kondziolka	Development and initial use of a comprehensive prospective registry for radiosurgery outcomes research
1148-1153	Kazuhiro Hongo	Surgeon-assisting intelligent armrest utilizing robotic technology

1153-1158 Discussion (Murat Gunel)

1158-1205 75th Anniversary – Historian Report (to be presented by Donald Quest)

1205-1215 Academy Winners (To be presented by Dr. Guy McKhann)

Nader Sanai –2013 Academy Award Winner: “PDGF-Mediated Glioma Stem Cell Homing to the Human Subventricular Zone – A Radiographically Silent Reservoir for Subependymal Spread”

Sameer Sheth - Honorable Mention: “The Neurophysiological Basis of Decision Making in the Dorsal Anterior Cingulate Cortex” (Dr. Seth will not present).

FRIDAY SEPTEMBER 27

730- 800 Point-counterpoint session: (Moderator: Douglas Kondziolka)

Primum Non Nocere: Observation vs Treatment of Newly Found Skull Base Tumors

Michael McDermott: Early treatment provides better outcomes and less harm.

Franco DeMonte: Observation provides better outcomes and less harm.

Novel Technology/Imaging (800-940) (Moderator: Sander Connolly)

800-810	Richard Byrne	Chronic ambulatory intracranial recording guided resective epilepsy surgery. Beyond subacute monitoring.
812-822	John Golfinos	Initial experience of auditory brainstem implants for non-neurofibromatosis type 2 children
824-834	L. Fernando Gonzalez	The use of patient specific aneurysm models to determine the effect of flow diversion on intraaneurysm pressure and flow patterns
836-846	Nicholas Boulis	Intracellular targeting of neuromodulatory transgene through fusion of either Gap-43 or Tau to the clostridial tetanus toxin light chain improves synaptic inhibition
848-858	Peter Gerszten	Volumetric intensity-modulated arc treatment (VMAT) radiosurgery: The next paradigm shift for extracranial neurosurgical applications.
900-910	Randy Jensen	Preoperative dynamic contrast enhanced MR correlates with molecular markers of hypoxia and vascularity in specific areas of intratumoral microenvironment and is predictive of patient outcome
912-922	James Rutka	Re-operation for intractable epilepsy after hemispherectomy: Utility of DTI linked to neuronavigation

924-934	Gary Steinberg	Flexible omni-directional carbon dioxide laser as an effective tool for resection of brainstem, supratentorial and intramedullary cavernous malformations
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936-941 Discussion (Sander Connolly to lead)

941-946 Neurosurgery Research (Griffith Harsh and Russell Lonser)

946-1011 BREAK

Technical Updates (1013-1116) (Moderator: Philip Stieg to lead)

1013-1023	Michael Lawton	Deep arteriovenous malformations in the basal ganglia, thalamus, and insula: Microsurgical management, techniques, and results (Part 2)
1025-1035	Cameron McDougall	Complication rates in AVM embolization before and after Onyx
1037-1047	Ziya Gokaslan	Evolution of surgical treatment of spinal chordomas: Region specific challenges and outcomes
1049-1059	Lynda Yang	Surgical intervention and outcomes assessment in neonatal brachial plexus palsy
1101-1111	Mark Hadley	Electrophysiological monitoring as diagnostic and therapeutic tools in spinal surgery

1111-1116 Discussion (Philip Stieg to lead)

Special Lecture

1116-1146 Andrew Schwartz (to be introduced by Robert Friedlander)

1146-1151 Presentation of President: Corey Raffel

1151-1221 Presidential Address

President Griffith Harsh “Memory – phenomena, physiology and pedagogy”

SATURDAY SEPTEMBER 28

**Radiosurgery Updates/Cellular Therapies/Parasellar Lesions (730-935)
(Moderator: Ian Pollack)**

Radiosurgery Update

730-740	Steven Chang	Stereotactic radiosurgery for spinal meningiomas, neurofibromas, and Schwannomas
742-752	Michael Vogelbaum	The impact of radiosurgery prescription dose on radiation necrosis and local control of brain metastases smaller than 2cm: Initial report of a 12 year experience

Cellular Therapies

754-804	Costas Hadjipanayis	Targeted therapy of glioma stem cells and tumor non-stem cells using cetuximab-conjugated iron-oxide nanoparticles
806-816	Allan Levi	Transplantation of a neural prosthesis filled with autologous Schwann cells for the repair of segmental peripheral nerve defects
818-828	Nathan Selden	Natural stem cell transplantation for neuronal ceroid lipofuscinoses: Long term follow-up results of Phase I study
830-840	Craig van Horne	Grafts of autologous peripheral nerve implanted into the substantia nigra of subjects with Parkinson's disease undergoing deep brain stimulation: Pilot and feasibility data for a novel cellular restoration strategy

Parasellar Lesions

842-852	Andrew Little	Prospective multicenter study comparing sinonasal morbidity between microscopic and endoscopic transsphenoidal surgery for sellar lesions: An interim analysis.
854-904	Bruce Pollock	Single-fraction radiosurgery for pituitary adenomas contacting or adjacent (<2mm) to the anterior visual pathways
906-916	Marvin Bergsneider	The pituitary stalk effect revisited

918-928	Todd Hankinson	Advancing treatment for pediatric craniopharyngioma: Pilot study identifying biological targets for medical therapy
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930-935 Discussion (Ian Pollack to lead)

935-955 BREAK

Special Lecture

957-1027 Karl Deisseroth (to be introduced by Jaimie Henderson)

Research in Neurosurgery (1027-1225) (Moderator: Russell Lonser)

1027-1037	John Boockvar	FTY720, a sphingosine 1-phosphate receptor modulator, attenuates radiation-induced neurocognitive decline in young mice
1039-1049	Robert Gross	Stereotactic laser ablation of mesial temporal and other epileptic foci: A minimally invasive alternative with potential for improved neurocognitive outcome and health-care utilization
1051-1101	Peter Fecci	Lost and found: Systemic immune dysregulation and the bone marrow as harbor for lost T-cells in treatment-naïve patients and mice with glioblastoma
1103-1113	Kevin Foley	Dose dependency and in vivo species-specific gene expression changes after treatment with a novel cellular therapy in a 3-month rabbit model of degenerative disc disease
1115-1125	Amy Heimberger	Glioblastoma exosomes induce immune suppressive M2 macrophages by direct nuclear transfer of STAT3
1127-1137	Murat Gunel	Genomic landscape of meningiomas
1139-1149	Joseph Madsen	Visualizing epileptogenic networks: Causality analysis to optimize epilepsy surgery

1151-1201	Shenandoah Robinson	Erythropoietin enhances cerebral cortical inhibitory circuit formation by limiting injury-induced calpain-mediated KCC2 degradation
1203-1213	Robert Dempsey	Re-evaluating cerebral ischemia from carotid atherosclerosis
1215-1225	Mark Johnson	A multi-component glioblastoma growth and invasion program activated by MicroRNA-29a