

Historical Synopsis of the 2013 Academy Annual Meeting

The American Academy of Neurological Surgery met for its 75th Annual Meeting in September 2013 in sunny and warm Newport Beach, California. The Resort at Pelican Hill was the meeting venue – surely one of the most beautiful and luxurious hotels in the world; spacious villas for all attendees set on the hillside overlooking the Pacific and Santa Catalina Island. President Griff Harsh presided.

Secretary Mitch Berger noted the membership to be 107 Active, 60 Senior Active, 56 Senior Retired, 11 Active Corresponding and 1 Honorary. Attendance at the meeting was 268. There will be a gradual increase in slots for new members over the next few years (2 per year).

Dan Barrow, Treasurer, noted meeting revenues and expenses are roughly equal at \$225,000. The primary source of Academy income is dues ~ \$205,000 yearly. The Academy continues to have assets in the \$1,000,000 range. He noted that industry support is increasingly problematic due to economic factors and regulatory scrutiny. Ideas for justifying grants from industry sponsors include endowment of guest speakers, awards for Academy Award winners, and NREF support. An award to \$100,000 in honor of Ed Oldfield was provided to the NREF from the Academy.

Bob Carter, Local Arrangements Chair, outlined the activities for the meeting which included fishing, golf, sea kayaking, hiking, biking, entertainment by the Neurosurgical Jazz Quintet and the Annual Banquet. There were 268 attendees at the meeting

Bob Friedlander Scientific Program Chair, noted there were 80 scientific abstracts submitted and 50 accepted.

Mark Hadley, reporting for Future Sites Chairman Art Day, previewed the 2014 Annual Meeting of the Academy to be held at the Watercolor resort in Santa Rosa Beach, Florida. Mark noted that resorts/hotels are becoming reluctant to book meetings that do not run through the weekend – thus the Academy may need to consider a Thursday night through Sunday format. Anil Nanda will serve as Local Arrangements Chairman for the 2015 meeting with the German Academy in Heidelberg, Germany. The Biltmore in Asheville, North Carolina is under consideration for the 2016 meeting.

Mitch Berger was elected President to follow Griff Harsh and Al Cohen was elected Vice-President. Dan Barrow will move to Secretary and Nino Chiocca will become Treasurer. Chris Loftus was supported for President Elect of the World Federation of Neurosurgical Societies.

This is the first year that the new election system of a super majority of 80% of those eligible to vote present at the Annual Meeting is required for election to membership. The list of those under consideration for membership was sent to the active members one month prior to the meeting for their comments. Eleven nominees were on the ballot and all were elected. Dr. Toshiko Wakabashy was elected as a Corresponding Member

The Round Robin is online and participation encouraged.

It was reported that the Neurosurgical Research and Education Foundation has been revamped to increase programmatic offerings and enhance the culture of philanthropy.

A snapshot of the variety of presentations at the superb scientific meeting

President Griff Harsh gave his Presidential Address on *Memory – phenomena, physiology and pedagogy*. He discussed three groups of people with unusually impressive memories – those with autobiographic memory, mnemonists (those with the ability to recall unusually long lists of data using the Method of Loci [associating an orderly arrangement of locations to place things to be remembered]) and prodigious savants. He reviewed their underlying brain anatomy, physiology and implications for teaching.

There was a Point-Counterpoint sessions on preoperative imaging versus intraoperative mapping for brain tumor resection (pre operative DTI tractography, functional MRI, DWI, spectroscopy, vs. intraoperative awake cortical and sub-cortical mapping).

The other Point-Counterpoint session juxtaposed observation versus treatment for newly diagnosed skull base tumors.

A Special Lecture was delivered by Andrew Schwartz, Professor of Neurobiology, University of Pittsburgh whose work has involved decoding information from the brain to guide neuroprosthetic devices - how the brain controls volitional movement. [He presented his experience with](#) implantation of penetrating electrode arrays in a quadriplegic patient demonstrating exquisite control of a robotic arm

Karl Deisseroth, Professor of Bioengineering and of Psychiatry and Behavioral Sciences at Stanford presented his work on the development and scientific implementation of optogenetics - an optical voltage gated mechanism to manipulate in vivo neuronal activity. In addition he presented data with the technique “Clarity”, which he developed - where neuroscientists are able to perform staining of various parts of the brain without sectioning it. Both of these techniques will have profound and lasting impact on neuroscience.

Papers were presented on gliomas therapeutics (vaccination with glioma antigen peptides, dendritic cell migration, cytomegalic virus and tumor suppressor mutations, physiologic and metabolic imaging in planning surgical resection of gliomas, sonic hedgehog signaling pathway, delivery of mesenchymal stem cells to prolong survival in experimental brain tumors, nanosyringes to inhibit cellular pumps, advances in epilepsy and functional neurosurgery, current clinical trials, novel technology and imaging, technical updates, radiosurgery, cellular therapeutics, and parasellar lesions.

Topics such as minimally invasive surgery versus tap for ICH, AVM risk of hemorrhage, unruptured aneurysms, posterior vertebral column osteotomy for tethered cord, the

development of a prospective radiosurgery registry, a robotic armrest and the Barrow Ruptured Aneurysm Trial were all discussed