

AANS/CNS Section on Stereotactic and Functional Neurosurgery and American Society for Stereotactic and Functional Neurosurgery

Editor: Emad Eskandar, MD

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From the President

Turf Wars: Should We Fight Them?



As one gets involved in organized neurosurgery, a topic that frequently arises is that of “turf.” Are there procedures that should be done by neurosurgeons only? Conversely, what should

neurosurgeons do if other specialties try to exclude us from certain types of interventions? Turf conflicts have come up recently in trauma care, radiosurgery and endovascular treatments. Should trauma surgeons be allowed to perform some neurotrauma procedures? Should radiation oncologists be allowed to do redefine stereotactic radiosurgery as a nonsurgical procedure? Can neurosurgeons infringe on the territory of interventional radiologists? Hospital departments may make an effort to encode “turf” in hospital credentialing, while specialty organizations may draft formal position statements that could ultimately affect third party reimbursement.

Officers of professional organizations typically are expected to uncritically guard their subspecialty’s turf. But should we? U.S. civil law provides some guidelines. The foundation of U.S. antitrust law, the Sherman Act of 1890, covers professional services as well as material goods. A 1975 U.S. Supreme Court ruling, *Goldfarb v. Virginia State Bar*, 421 U.S. 773, reinforced this interpretation. The ruling found that Congress intended no “learned profession exclusion from the Sherman Act” (see <http://supreme.justia.com/us/421/773>). From the legal standpoint, therefore, the attempt to exclude another specialty from performing a procedure traditionally done by neurosurgeons may amount to conspiracy to restrict trade.

Who really benefits when a specialty defends its traditional turf? Is it really impossible that a trauma surgeon could be competently trained to perform a craniotomy or ventriculostomy, with appropriate training and neurosurgical backup? Common sense says no: If a junior neurosurgery resident can be trained to do these procedures, why not a senior trauma surgeon? Given the decreasing coverage of emergency rooms by neurosurgeons, to fight against another type of specialist being trained to provide this service seems at best narrowly self-interested. Likewise, I have no problem with a radiation oncologist, appropriately trained, performing radiosurgery without us. What would have happened if radiation specialists had told the neurosurgical pioneers: “You can’t develop radiosurgery because ionizing radiation is *our* turf.”

Neurosurgery is a thriving specialty not because we have successfully defended our turf from others but because we have innovated new procedures that may not be traditionally neurosurgical, like radiosurgery, and because we have expanded into other fields when we know we have special skills to offer, such as with spinal instrumentation. As an ASSFN officer, I divide turf battles into two types: defensive and offensive. When another professional group attempts to exclude us from something we could do well, that battle should be fought. By the same token, we should never fight to keep non-neurosurgeons away from “neurosurgical” procedures. Instead we should welcome their interest, help train them, help them establish standards of practice, and ask for the same treatment in return when we “invade their turf.” The result will be more interdisciplinary collaboration, more innovation, and greater harmony with the American legal tradition.

Philip Starr, MD, PhD
San Francisco, Calif.

Recent Advances in Stereotactic and Functional Neurosurgery

Numerous advances in the field of stereotactic and functional neurosurgery over the past year are evidenced by the publication of results for several randomized, controlled trials. Many of these results validate our current practices while others presage development of new anatomic targets for intervention in diseases that have not commonly been treated with neurosurgical techniques.

Parkinson's Disease

The first report, a cooperative study by Weaver and colleagues for the U.S. Department of Veterans Affairs (VA) of deep brain stimulation versus continued medical management in the treatment of Parkinson's disease (PD) appeared in January (Weaver et al. *JAMA*. 2009 Jan 7;301(1):63–73). This study randomized 255 patients to surgery or continued medical management. Within the surgical arm, patients were randomized to bilateral deep brain stimulation (DBS) of the subthalamic nucleus (STN) or globus pallidus internus (GPI). In this initial report, results from the two targets were pooled. Outcomes in the surgical arm were superior to best medical therapy in terms of motor improvements and quality of life at six months. However, the surgical group did have a higher rate of serious adverse events, including falls, dystonia, hardware failures, infections, and one death secondary to intracerebral hemorrhage, and this group experienced mild changes in verbal fluency and working memory. This study suggests that there is a cognitive price to pay for improved motor function and quality of life. With this study, there are now five randomized controlled trials that demonstrate superiority of surgical treatment to continued medical management in appropriately chosen patients with PD (Vitek et al. *Ann Neurol*. 2003 May;53[5]:558–69; Esselink et al. *Neurology*. 2004 Jan 27;62[2]:201–7; Deuschl et al. *N Engl J Med*. 2006 Aug 31;355[9]:896–908; Schupbach et al. *Neurology*. 2007 Jan 23;68[4]:267–71). The challenge is determining when a patient has failed medical therapy and should be considered for surgery. The community looks forward to subsequent publications from this group that report longer outcomes data and provide subgroup analysis, especially the comparison between the STN and GPI targets.

While DBS is helpful for bradykinesia, tremor, rigidity, levodopa-induced dyskinesias and on-off fluctuations seen in PD, the problems with falls that were reported in the VA cooperative study reinforce that there are other aspects of the disease that are not consistently helped. Several groups have undertaken animal studies of DBS of the pedunculopontine nucleus for PD with predominant gait symptoms, and the preliminary results are promising (Pierantozzi *J Neural Transm*. 2008, 115[5]:731–5; Weinberger *Exp Brain Res*. 2008, 188[2]:165–74; Strafella *Mov Disord*. 2008 May 15;23[7]:1051–4).

In addition to DBS, Ceregene completed its Phase II trial of intraputamenal neurturin gene therapy for PD. Although the study is not yet published, Ceregene has issued a press release stating that the trial failed to show efficacy of the vector over the

placebo. Neurologix has started its Phase II trial of glutamic acid decarboxylase gene therapy delivered to the STN for PD.

Psychiatric Disease

A consortium of American and Belgian neurosurgeons published long-term results of open label DBS in the ventral internal capsule/ventral striatum for obsessive-compulsive disorder (OCD) in 26 patients (Greenberg et al. *Mol Psychiatry*. 2008). Over an eight-year period, they refined their target with decreased current required for therapy and increased efficacy, although the number of patients was small. On the basis of these results, Medtronic applied to the FDA and received a human device exemption for ventral capsule/ventral striatum DBS for medically refractory OCD. Currently, there is an investigator-initiated, multicenter, randomized, controlled and blinded trial, funded by the National Institutes of Health, that assesses the efficacy of the DBS in the ventral capsule/ventral striatum for the treatment of OCD. This study is now open and is currently enrolling patients. In parallel, a French consortium published results of trial involving STN DBS for OCD using a randomized, blinded, crossover design (Mallet et al. *N Engl J Med*. 2008 Nov 13;359[20]:2121–34). The target within the STN was more anterior and medial to what is typically used for PD. This trial demonstrated significant benefit in the active therapy arm, both in reduction of OCD symptoms as measured by the Yale-Brown Obsessive-Compulsive Scale and improvement in global assessment of function.

Both American and Canadian groups had significant publications on open label trials of DBS for treatment resistant depression using different targets (Malone et al. *Biol Psychiatry*. 2008; Lozano et al. *Biol Psychiatry*. 2008 Sep 15;64[6]:461–7). The American group used a similar target in the ventral capsule/ventral striatum to what had been previously used for OCD. The Toronto group targeted the subgenual cingulate gyrus (Brodmann Area 25). Both groups had similar response and remission rates, though the response criteria were somewhat more stringent for the ventral capsule/ventral striatum study. The FDA granted St. Jude Medical, which holds a U.S. patent for Area 25 DBS for treatment-resistant depression, an investigational device exemption for a Phase II study. Medtronic is sponsoring a multicenter Phase II study of DBS in the ventral capsule/ventral striatum for treatment-resistant depression. This study just opened and a number of centers now are enrolling patients.

Welter and colleagues published a randomized, blinded, controlled trial of DBS for Tourette's syndrome (Welter *Arch Neurol*. 2008;65[7]:952–7) in three patients. Electrodes were implanted bilaterally in the centromedian-parafascicular complex of the thalamus and in the GPI. The patients were then randomized to sham, bilateral GPI stimulation, bilateral STN stimulation or combined STN and GPI stimulation. There were fewer tic counts in the active stimulation groups with some indication that GPI might be the superior target. As a result, this group is currently leading a larger, multicenter study of GPI DBS for Tourette's syndrome.

Hypothalamic Stimulation

The hypothalamus, in spite of its small size and functional density, has become a potential target for treatment of several conditions. The group from Milan published eight years of experience with posterior hypothalamic DBS for cluster headache (Leone Cephalalgia. 2008 Jul;28[7]:787–97). Other groups have followed their lead, with varying results (Pinsker Zentralbl Neurochir. 2008 May;69[2]:76–79; Bartsch Cephalalgia. 2008 Mar;28[3]:285–95). The group from Nice recently completed a randomized, controlled, double-blind crossover trial of posterior hypothalamic DBS for cluster headache, although the results have not been reported to date (clinicaltrials.gov/ct2/show/NCT00662935).

Kuhn and colleagues reported a case of self-mutilation reduced by hypothalamic stimulation (Kuhn, Neurosurgery. 2008 May;62[5]:E1182).

The Toronto group implanted DBS electrodes into the hypothalamus to treat morbid obesity (Hamani et al.; Ann Neurol. 2008 Jan;63[1]:119–23). Contacts near the fornix induced déjà vu and improved the patient's memory performance on neuropsychological testing. As a result, this group has initiated a trial of hypothalamic DBS for Alzheimer's disease (clinicaltrials.gov/ct2/show/NCT00658125).

Epilepsy

The efficacy of resective surgery for medically refractory epilepsy is well established. However, new technology is emerging, in addition to vagal nerve stimulation, for patients with medically refractory epilepsy who are not candidates for resective surgery. Although

not published yet, data from the prospective, randomized, blinded SANTE trial of thalamic anterior nucleus stimulation for medically refractory epilepsy were presented at the 2008 American Epilepsy Society meeting. Medtronic issued a press release stating that there was significant decrease in seizure frequency as well as improvement in quality of life. Neuropace has completed enrollment in its pivotal trial of the responsive neurostimulator (RNS) device for epilepsy. Unlike the device used in SANTE, which delivers continuous stimulation, the RNS device acts on demand, similar to a pacemaker or defibrillator, delivering a pulse when an algorithm detects seizure activity. We look forward to the published results of these two trials.

Stroke

Robert Levy, MD, presented the results of the Phase III EVEREST study of short-term motor cortex stimulation for the treatment of stroke patients with upper extremity hemiparesis at the 2008 CNS meeting. Unfortunately, in spite of promising open label studies, there was no increased benefit of stimulation versus rehabilitation alone. Although they did not reach statistical significance, subgroup analyses suggested that some patients benefited from stimulation. These analyses may provide an area for subsequent trials.

Jason M. Schwalb, MD
Detroit, Mich.

Portions of this article were published previously in CNS Quarterly.

Upcoming Meetings Calendar

One of the purposes of this newsletter is to inform all ASSFN members about upcoming meetings and conferences of interest. Meeting organizers are encouraged to send information about upcoming meetings to the newsletter editor, Emad Eskandar, MD.

77th Annual Meeting of the American Association of Neurological Surgeons (AANS)

San Diego, Calif.
May 2–6, 2009
www.aans.org

15th Quadrennial Meeting of the World Society of Stereotactic and Functional Neurosurgery (WSSFN)

Toronto, Canada
May 24–27, 2009
www.wssfn.org

9th Bi-Annual Congress of the International Stereotactic Radiosurgery Society (ISRS)

Seoul, South Korea
June 7–11, 2009
www.isrs2009.org

XIV International Congress of Neurological Surgery (WFNS)

Boston, Mass.
Aug. 30–Sept. 4, 2009
www.wfns.org

9th World Congress of International Neuromodulation Society (INS)

Seoul, South Korea
Sept. 12–18, 2009
www.neuromodulation.com

2009 Congress of Neurological Surgeons Annual Meeting

New Orleans, La.
Oct. 24–29, 2009
www.cns.org/meetings/2009/index.asp

78th Annual Meeting of the American Association of Neurological Surgeons (AANS)

Philadelphia, Pa.
May 1–5, 2010
www.aans.org

2010 Biennial Meeting of the ASSFN

Save the date!
New York, N.Y.
June 13–16, 2010
www.assfn.org

2009 AANS Meeting Highlights

The 2009 AANS meeting May 2–6 in San Diego, Calif., promises to be an exciting event. There will be two scientific sessions that focus on stereotactic and functional neurosurgery. The first session will be on Monday, May 4, and will include an invited talk by Johannes Schramm, MD, “How Much to Resect in Surgery for Temporal Lobe Epilepsy: Concepts, Trials, Findings,” and presentation of the Gildenberg Resident Research Award. The second session will be on Wednesday, May 6, and will include a fascinating symposium on emerging treatments for dementia and Alzheimer’s disease. The preliminary program is listed below, and details are available at www.aans.org.

MONDAY, MAY 4

SCIENTIFIC SESSION III—STEREOTACTIC AND FUNCTIONAL 2:45–5:15 PM

This session will focus on innovations in the diagnosis, management and treatment of stereotactic and functional neurosurgery. Innovations developed in the last 12 months will be presented.

Moderator: *Philip A. Starr, MD, PhD*

2:45–2:59 PM

Gildenberg S&F Resident Award Comparisons of Human Embryonic Stem Cells (hESC) and Human Umbilical Cord Blood Stem Cell (hUCB) in Parkinson’s Disease

Adam Smith, MD; Mary B. Newman, PhD; Leo Kelly, BA; Roy Bakay, MD (Chicago, Ill.)

Discussant: *Daniel A. Lim, MD, PhD*

3:00–3:14 PM

A Systematic Analysis of the Critical Variables for Success in Therapeutic Human Cortical Stimulation

Robert M. Levy, MD, PhD; Jonathon Lebovitz, MS; Sara J. Gorsky, BA; Todd Parrish, PhD (Chicago, Ill.)

Discussant: *Matthew A. Howard III, MD*

3:15–3:29 PM

Considerations Regarding Heating of Deep Brain Stimulation Leads During 3.0 Tesla Magnetic Resonance Imaging

Joshua A. Klemp, MD; Gregory Onyszczyk, PhD; Jules M. Nazzaro, MD (Kansas City, Kan.)

Discussant: *Ali R. Rezai, MD*

3:30–3:44 PM

The Effect of Subthalamic Nucleus High Frequency Stimulation on the Contralateral Subthalamic Nucleus

Jules M. Nazzaro, MD; Joshua A. Klemp, MD; Larry W. Ridings, MD; Kelly E. Lyons, PhD; Rajesh Pahwa, MD (Kansas City, Kan.); Peter Novak, MD, PhD (Worcester, Mass.)

Discussant: *Roy A. E. Bakay, MD*

3:45–4:15 PM

INVITED SPEAKER

How Much to Resect in Surgery for Temporal Lobe Epilepsy: Concepts, Trials, Findings

Johannes Schramm, MD

4:16–4:30 PM

Prospective Comparison of Posterior Fossa Exploration and Radiosurgery as Primary Surgery for Patients With Typical Trigeminal Neuralgia

Bruce E. Pollock, MD; Kimberly A. Schoeberl, RN (Rochester, Minn.)

Discussant: *Kenneth A. Follett, MD, PhD*

4:31–4:45 PM

The Modulation of Human Nucleus Accumbens Neurons During Goal-Oriented Behavior

Jason L. Gerrard, MD, PhD; John T. Gale, PhD; Felipe A. Jain, MD; Emad N. Eskandar, MD (Boston, Mass.)

Discussant: *Guy M. McKhann II, MD*

4:46–5:00 PM

Single-Tensor Versus Two-Tensor Method in Diffusion Tensor Tractography to Demonstrate the Hand and Face Motor Fibers for Surgical Planning

Alireza Radmanesh, MD; Stephen Whalen, BS; Amir A. Zamani, MD; Ferenc A. Jolesz, MD; Alexandra J. Golby, MD (Boston, Mass.)

Discussant: *Allan H. Friedman, MD, FACS*

5:01–5:15 PM

Stereotactic Radiosurgical Treatment of Cranial and Spinal Hemangioblastomas

Steven D. Chang, MD; Jason Moss, BS; Scott G. Soltys, MD; Iris C. Gibbs, MD; John R. Adler, MD (Stanford, Calif.)

Discussant: *Russell R. Lonser, MD*



AANS/CNS SECTION ON STEREOTACTIC AND FUNCTIONAL NEUROSURGERY

2:45–5:30 PM

Moderators: Aviva Abosch, MD, PhD; Michael G. Kaplitt, MD, PhD

SYMPOSIUM

2:45–2:59 PM

NGF Therapy for Alzheimer's Disease

Speaker: Mark H. Tuszynski, MD, PhD

3:00–3:14 PM

DBS for Memory Enhancement: Theoretical Basis and Trial Design

Speaker: Alim L. Benabid, MD, PhD

3:15–3:29 PM

CSF Shunting for Alzheimer's: Clinical Results

Speaker: Gerald D. Silverberg, MD

3:30–3:50 PM

Questions and Answers

3:51–4:00 PM

YNS Medical Student Award

Limbic and Motor Function Comparison of Deep Brain Stimulation of the Zona Incerta and Subthalamic Nucleus

Anthony M. Burrows, BS; Paula D. Ravin, MD; Peter Novak, MD, PhD; Brian Desureau, PhD; Joan Swearer, PhD; Julie G. Pilitsis, MD, PhD (Worcester, Mass.)

4:01–4:10 PM

Intracranial EEG for Neuronal Oscillatory Contingency During Cognitive Tasks

Kareem A. Zaghloul, MD, PhD; John F. Burke, BS; Joshua Jacobs, PhD; Jeremy Manning, BS; Brian Litt, MD; Michael J. Kahana, PhD; Gordon H. Baltuch, MD, PhD (Philadelphia, Pa.)

4:11–4:20 PM

Defining the Cortical Physiology of Ipsilateral Finger Movements and Neuroprosthetic Implications for Hemispheric Stroke

Eric C. Leuthardt, MD; Kimberly Wisneski, MS; Charles Gaona, MS; Mohit Sharma, MS; Zachary Freudenburg, MS; William Smart, PhD (St. Louis, Mo.)

4:21–4:30 PM

DBS-Implanted Parkinson's Disease Patients Show Better Olfaction Than Those Treated Medically

Mary Linton B. Peters, MS; Paula Ravin, MD; Peter Novak, MD, PhD; Joan Swearer, PhD; Jean King, PhD; Sathish Kumar Dundamadappa, MD; Julie G. Pilitsis, MD, PhD (Worcester, Mass.)



4:31–4:40 PM

Intracerebral Microdialysis During Deep Brain Stimulation Surgery for Parkinson's Disease

Ephraim Church, BA; Michaux Kilpatrick, MD, PhD; Michael B. Robinson, PhD; Irwin Lucki, PhD; Jurg L. Jaggi, PhD; Gordon H. Baltuch, MD, PhD (Philadelphia, Pa.)

4:41–4:50 PM

Diffusion Tensor Imaging in Syringomyelia: Assessment of Spinal Somatosensory Systems

Fabrice Parker, MD, PhD (Le Kremlin Bicetre, France); Samar Hatem, MD (Universite Catholique de Louvain, Belgium); Nadine Attal, MD, PhD (Inserm, France); Denis Ducreux, MD, PhD (France); Michele Gautron (France); Leon Plaghki, MD, PhD (Belgium); Adriano Yacubian-Fernandes, MD (Bauru, Brazil); Didier Bouhassira, MD, PhD (France)

4:51–5:00 PM

Frameless Robotic Stereotactic Biopsy: Feasibility, Diagnostic Yield and Safety

Tarek A. Radwan, MD; Atman Desai, MD; David W. Roberts, MD (Lebanon, N.H.)

5:01–5:10 PM

Surgical Repositioning of Misplaced STN DBS Electrodes in Parkinson's Disease: Locations of Effective and Ineffective Leads

Robert M. Richardson, MD, PhD; Jill L. Ostrem, MD; Philip A. Starr, MD, PhD (San Francisco, Calif.)

5:11–5:20 PM

Comparison of Two Resective Strategies in Patients With Focal Epilepsy Associated With Cavernous Angiomas

Rebecca O'Dwyer, MD; Jorge Gonzalez-Martinez, MD, PhD; Andreas V. Alexopoulos, MD, MPH; Sean Nagel, MD; Tsu Lee Chen, MD; Imad M. Najm, MD; William Bingaman, MD (Cleveland, Ohio)

5:21–5:30 PM

Questions and Answers

2008 CNS Meeting Highlights

The 2008 CNS Annual Meeting took place Sept. 21–25 in Orlando, Fla. As part of the meeting, the Stereotactic and Functional Neurosurgery Section planned several presentations. A session on stereotactic and functional neurosurgery with presentation of oral papers and selected posters took place on Monday, Sept. 22, an interactive medical learning (IML) session dedicated to stereotactic and functional neurosurgery, on Tuesday, Sept. 23, and a special seminar on deep brain stimulation for dystonia on Wednesday, Sept. 24. In addition to those offerings, there were presentations on stereotactic and functional topics during morning IML sessions held daily.

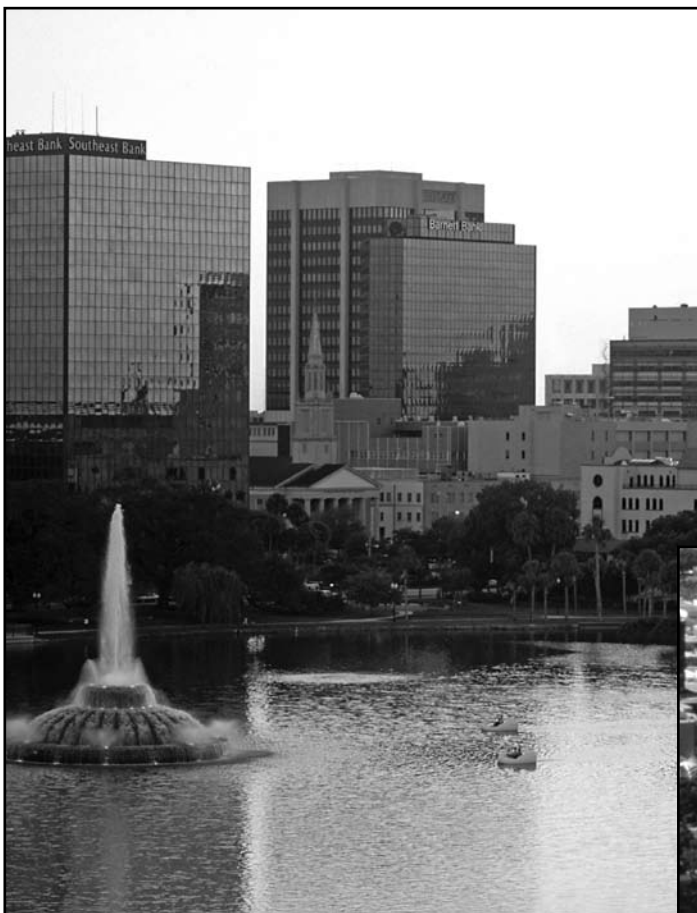
The Tuesday afternoon session entitled “Optimal Stimulation Target for Parkinson’s Disease: Globus Pallidus Internus Versus Subthalamic Nucleus” was the first IML program conducted by the Stereotactic and Functional Section. The experts were Kim J. Burchiel, MD, and Philip A. Starr, MD, while the moderators were Emad N. Eskandar, MD, Kathryn L. Holloway, MD, Kelly D. Foote, MD, and Paul Larson, MD. This was a lively and well-received session that included presentation of six different

clinical case scenarios, a review of the most pertinent literature and discussion by the experts, along with interactive polling and questions from the audience. Based on the available data, there was no firm recommendation regarding the superiority of one target over another. The session also highlighted some of the soon-to-be-completed studies comparing the globus pallidus internus and subthalamic nucleus targets for the treatment of Parkinson’s disease.

Based on the success of this session, there will be another stereotactic and functional IML session at the 2009 CNS Annual Meeting in New Orleans from Oct. 24 to 29. The title of the next IML session will be “Anterior Temporal Lobectomy Versus Selective Amygdalohippocampectomy: Is There an Advantage in Seizure or Neuropsychological Outcomes?” This topic was selected by attendees at the 2008 CNS meeting, and it promises to inspire an extremely timely, engaging, and interesting session.

There was also an excellent Wednesday afternoon session, “Management of Dystonia: Current Understanding and Treatment,” moderated by Konstantin Slavin, MD, and Michael Schulder, MD. Among the topics reviewed were “Medical Approaches to Dystonia” by Michael Okun, MD, and “Overview of Dystonia Surgery” by Dr. Foote. Subsequently, the talks “Globus Pallidus Deep Brain Stimulation for Dystonia” by Ron L. Alterman, “Subthalamic Deep Brain Stimulation for Dystonia” by Gordon Baltuch, and “Deep Brain Stimulation for Focal Dystonia” by Dr. Starr were given. This session was an extremely comprehensive and excellent review regarding the state of the art in the treatment of dystonia.

There was a social reception for residents and fellows in the Peabody Hotel in Orlando. This was a very informal event and a great opportunity for current and prospective fellows to learn more about functional neurosurgery.



Application for New Membership



American Association of Neurological Surgeons



American Society for Stereotactic and Functional Neurosurgery

Name _____

Office Address _____

City _____ State _____ Country _____

Phone _____ Fax _____ E-mail _____

Residency Training Program _____ Years: _____

Medical School _____

Specialty (circle) Neurosurgery Neurology Other: _____

AANS Member Yes No CNS Member Yes No

Interests in Stereotactic and Functional Neurosurgery: (please circle)

- | | | | |
|------------------------|--------|--------------|----------------|
| Movement Disorders | Pain | Epilepsy | Psychosurgery |
| Biomedical Engineering | Tumors | Radiosurgery | Image Guidance |

Determine and circle your membership category:

Category	Yearly Fee	Description
Active	\$325	For practicing neurosurgeons in the United States or Canada who have completed residency/fellowship
Resident/Fellow	\$25	One-time fee (not yearly). For neurosurgical trainees currently in residency or fellowship
Senior	Free	For neurosurgeons who are retired and over 65 years old
Associate	\$50	For non-neurosurgeons

The benefits of Active membership include:

- Membership in the AANS/CNS Section on Stereotactic and Functional Neurosurgery
- Membership in the World Society for Stereotactic and Functional Neurosurgery
- Reduced fees for the biennial ASSFN meetings
- Subscription to the journal *Stereotactic and Functional Neurosurgery* (including online access)

The benefits of all other membership categories are:

- Membership in the AANS/CNS Section on Stereotactic and Functional Neurosurgery
- Reduced fees for the biennial ASSFN meetings
- Eligibility to subscribe to the journal *Stereotactic and Functional Neurosurgery* (including online access) at the reduced rate of \$135. If you are joining the ASSFN as a Resident/Fellow, Associate, or Senior member and wish to have the journal subscription, send a check for \$135, payable to AANS, directly to our secretariat at the AANS. Mail to: ASSFN, c/o AANS, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, and check this box:
 - YES, I would like to receive the society journal at the reduced rate.

There are two ways to become an ASSFN member:

- (1) Apply online at www.MyAANS.org (for Active member applications only), or (2) mail this application form and a check for the appropriate fee (see table above), payable to ASSFN, to: ASSFN, c/o AANS, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008.

For questions or concerns, contact the current (2008–2010) treasurer, Konstantin Slavin, at kslavin@uic.edu, or the membership chair, Kelly Foote, at foote@neurosurgery.ufl.edu.

ASSFN–AANS/CNS Section on Stereotactic and Functional Neurosurgery

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Alon Y. Mogilner, MD, PhD (2008–2012)

Residents and Fellows Reception

Our new tradition of holding a social reception for residents and fellows will continue at the 2009 AANS Annual Meeting. The reception will take place in the Balboa Room of the Marriott Hotel in San Diego, on Tuesday, May 5, from 6:30 to 8:30 p.m. This is a great opportunity for current and prospective fellows to learn more about functional neurosurgery! Please come and join your current and future colleagues to discuss your successes and challenges. This is a very informal event and, based on the experience of past meetings, the atmosphere is perfect for learning, sharing, establishing connections and making new friends. For more information, please contact Konstantin Slavin, MD, at kslavin@uic.edu.

