

# Stereotactic and Functional NEUROSURGERY NEWS



Fall 2012

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

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## Message from the President



Konstantin Slavin, MD, FAANS

Dear Colleagues,  
It is indeed a great honor and privilege to be elected President of such prominent and established society as the American Society for Stereotactic and Functional Neurosurgery (ASSFN). This job is

particularly challenging when one has to follow stellar example of the many famous functional neurosurgeons who held this post before me. Thankfully, the work of the Society President is supported by the entire executive council and a cohort of past presidents, all of whom find the time and strength in combining busy clinical and research practice with the service they provide to the ASSFN. As the matter of fact, I feel that the work of many past presidents and board members remains largely unknown to the members of our society and I would like to change this — first, by increasing transparency of the leadership's activity and, second, by enlisting help from two past presidents, Philip L. Gildenberg, MD, PhD,

FAANS(L); and Roy A. E. Bakay, MD, FAANS, to sum up ASSFN's history in a series of personal stories and anecdotes.

Before explaining my vision of the Society's priorities for the next two years, I want to give well-deserved credit to our immediate past president, Ali R. Rezai, MD, FAANS, who was able to complete a formidable task of re-establishing the ASSFN's legitimacy and functionality. His tireless efforts, persistence and wise allocation of resources allowed us to complete the project that was started by his predecessors — Douglas S. Kondziolka, MD, FAANS; Andres M. Lozano, MD, PhD, FAANS, FRCS, FRSC; G. Rees Cosgrove, MD, FAANS, FACS; Michael Schulder, MD, FAANS; and Philip A. Starr, MD, PhD, FAANS — as of September of 2011, the ASSFN was successfully incorporated as a non-profit 501(c)3 corporation. This mechanism allows us to continue providing our membership with major benefits such as the access to our journal, *Stereotactic and Functional Neurosurgery*, and our organization's website, [www.assfn.org](http://www.assfn.org), as well as conduct our biennial

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### Editor's Note

With this issue I assume the editorship of the ASSFN newsletter from Emad Eskandar, MD, FAANS, who is now occupied with many other duties as our new Secretary/Treasurer. He truly developed the newsletter into the informative and critical information organ that it has become for our society, and I would like to congratulate and thank him for the outstanding job that he has done over many years. The leadership of the society has made great efforts in recent years to increase our educational activities and advocacy on behalf of our membership, and to hopefully expand our outreach to new members and allied professionals. Maintaining a vibrant and relevant newsletter will be an essential tool to help advance these missions. I will do my best to follow his example, and while there are some new concepts that may be incorporated into the newsletter in coming issues, I welcome all suggestions and ideas for articles or topics, as well as assistance from any member who wishes to participate. I greatly look forward to the challenge of providing a timely and useful document that will help maintain the link between our members and our society.

Michael G. Kaplitt, MD, PhD, FAANS

meetings as an independent professional organization. Among other advantages, our non-profit status gives us an opportunity to attract donations and unrestricted grants that will be used to further educational and research initiatives that answer the Society's mission of improving patient care, educating neurosurgeons, allied specialties and the general public, and supporting research.

Fulfilling our mission will remain the main direction of the ASSFN activity for years to come. We will continue our active involvement in a variety of educational initiatives, including development of stereotactic and functional curriculum for neurosurgical residents; didactic and practical courses for residents, fellows and practicing neurosurgeons; participation in testing neurosurgical competency during initial and ongoing professional certification; etc. Establishing standards and minimal requirements for residency training in stereotactic and functional neurosurgery will be done as a part of the global neurosurgical educational matrix project, and, in parallel to it, we will continue our efforts in development of standards for stereotactic and functional fellowships.

Two of the most important educational ventures of the ASSFN are our journal and our biennial meeting. Stereotactic and Functional Neurosurgery is undeniably the most prestigious and respected publication in our field. Its importance and dedication to the specialty are well-recognized, and the continuous growth of the journal's impact factor is yet another evidence of its strength and value. Here the credit goes to the journal's editor, David W. Roberts, MD, FAANS; his staff; and the editorial board, who did an outstanding job of increasing the volume of the journal, maintaining the timeliness of the publication schedule and, most importantly, raising the quality of published papers — even if it came with a higher rejection rate.

The biennial ASSFN meeting deserves special mention: Our 2012 conference in San Francisco beat all records in terms of attendance, number and quality of presentations, as well as satisfaction of participants. The efforts of Meeting Chairman Philip A. Starr, MD, PhD, FAANS, who led the team of scientific program co-chairs, those in charge of local arrangements and sponsorship, chairs of three pre-meeting workshops, and a small

but efficient group of dedicated meeting organizers, resulting in an unprecedented event that continued our tradition of landmark conferences. For those who missed some of the presentations, the ASSFN is planning to post the conference abstracts on its website in the near future. I am happy to report that preparations are underway for our next biennial meeting in Washington, D.C. — please mark your calendars to join us there in June 2014.

Despite the importance of education, research and the pursuit of clinical excellence, the survival of our profession depends on the socioeconomic situation of stereotactic and functional neurosurgery — during my tenure as ASSFN President, improving it will be one of the main priorities of our society. The issues of chronic undervaluation of our skills and procedures, inadequate reimbursement for functional neurosurgery, mistakenly perceived low acuity of functional neurosurgical interventions all translate into loss of attractiveness of our field to young neurosurgeons and, in turn, lower availability of our services for many patients who need them. The situation has to change, and the ASSFN is in a unique position to serve as an advocate for the financial, logistical and professional interests of those who dedicated their lives and careers to functional and stereotactic neurosurgery.

Most importantly, the work of our Society depends on activity of its members. The enthusiasm and dedication of the ASSFN membership are the only mechanisms that allow us to fulfill our mission and prosper. With this, you will be receiving a personal invitation from me to participate in every facet of ASSFN life. We need your help, your thoughts, your feedback and your participation. I encourage each ASSFN member to become involved with our many projects, and share your wisdom and energy with the Society and your colleagues. I have no doubt we can strengthen the specialty of stereotactic and functional neurosurgery, and advance the field on all fronts — after all, we are the ones who have the unprecedented ability to improve quality of life of our patients!

I look forward to the productive two years of my presidential term, and count on your support and understanding.

Konstantin Slavin, MD, FAANS  
[kslavin@uic.edu](mailto:kslavin@uic.edu)

## Biennial ASSFN Meeting Sets New Records

Most societies try to emphasize the accomplishments of each meeting they conduct, but by nearly all objective metrics, the ASSFN Biennial Meeting that took place in San Francisco from June 3-6, 2012, was an enormous success. A record attendance of 373 reflects the ongoing growth of our field and the outstanding program created by the meeting leadership. The attendance was an increase of roughly 16 percent from the 2010 meeting, and 100 more registrants were at the 2012 meeting compared to the meetings held six and eight years ago.

The number of vendors also increased substantially, again reflecting the vibrant growth of our field. These increases in both attendance and vendor participation — combined with careful stewardship of the meeting — has substantially improved the

financial health of our society, which will help sustain our growth and facilitate new activities envisioned by society leadership. We also continue to attract a strong international following, with more than 100 attendees coming from outside the U.S. While Canada had the largest representation, there also were strong contingents from Australia, Brazil and China, with 27 countries represented overall. We congratulate chair Phil Starr, MD, PhD, FAANS, and all of the meeting leadership, and we are confident that this trend will continue in the extremely capable hands of our next meeting chair, Ali Rezai, MD, FAANS, when we convene in Washington, D.C. in 2014. Stay tuned to further information on this meeting in future newsletters.

# Meet the New ASSFN Board Members

At the ASSFN meeting in San Francisco this past June, elections were held for new officers and for vacancies on the ASSFN Board of Directors. We congratulate and welcome Joseph Neimat, MD, MSc, FAANS; Parag Patil, MD, PhD, FAANS; and Julie Pilitsis, MD, PhD, FAANS, on their election as new members to the ASSFN board. While they have been quite accomplished in their careers to date, we are providing brief biographies so that the broader membership can have more familiarity with the new leadership of their society.

## Joseph S. Neimat, MD, MSc, FAANS

Joseph S. Neimat, MD, MSc, FAANS, was raised in Washington, D.C. He attended Dartmouth College, and completed his medical degree and masters in neurobiology at Duke University. He then completed his neurosurgical residency at Massachusetts General Hospital, followed by a stereotactic and functional neurosurgery fellowship at the University of Toronto. Dr. Neimat currently is at Vanderbilt University, where he serves as director of the Vanderbilt Collaborative for Cognitive Therapeutics and Research (VCCTR). His research interests include the application of intraoperative microelectrode recording to describe the functional anatomy of frontal subcortical circuits; the use of behavioral testing and Near Infra-red Spectroscopy (NIRS) to evaluate the effects of DBS on cognitive and emotional function; and the creation of deformable physiological atlases that can be used to reconcile anatomical variation between patients and improve surgical targeting. Dr. Neimat lives in Nashville with his wife, Deena, and their three children.



## Parag G. Patil, MD, PhD, FAANS

Pennsylvania native Parag G. Patil, MD, PhD, FAANS, studied electrical engineering at the Massachusetts Institute of Technology, and philosophy and economics at Oxford University, before pursuing combined medical and doctoral studies in biomedical engineering at Johns Hopkins University. A childhood interest in brain-machine interfaces led to a strong clinical interest in functional neurosurgery, and a residency at Duke University with Allan H. Friedman, MD, FAANS, FACS; Dennis A. Turner, MD, FAANS; and Miguel A. L. Nicolelis, MD, PhD; and fellowship training at the University of Toronto with Andres M. Lozano, MD, PhD, FAANS, FRCS(C), FRSC. Dr. Patil currently is



assistant professor of neurosurgery, neurology, anesthesiology and biomedical engineering at the University of Michigan. He also is co-director of both the Surgical Therapies Improving Movement (STIM) Program and the Psychiatric Neuromodulation Program. His research utilizes engineering and imaging techniques to better understand the neurophysiology and clinical efficacy of deep brain stimulation.

## Julie G. Pilitsis, MD, PhD, FAANS

Julie G. Pilitsis MD, PhD, FAANS, graduated from Albany Medical College, Albany, N.Y., and completed her residency at Wayne State University in Detroit. During that time, she also obtained a PhD in neurophysiology, and became active in both basic science and translational research. This work resulted in a number of peer-reviewed journal articles, presentations and book chapters. Her research in facial pain earned her the William H. Sweet Young Investigator Award from the Pain Section of the American Association of Neurological Surgeons/Congress of Neurological Surgeons. Dr. Pilitsis went on to complete a fellowship in functional neurosurgery at Rush University Medical Center in Chicago with Dr. Roy A. E. Bakay, MD, FAANS. She then served as director of functional neurosurgery at UMass Memorial Medical Center. Dr. Pilitsis recently returned to her alma mater, Albany Medical College, as an associate professor. Her clinical interests are deep brain stimulation and neurosurgical pain procedures. Her research focuses on the impact of stimulation on cognitive and behavioral symptoms of Parkinson Disease (PD) and the optimization of stereotactic procedures. Specifically, her laboratory with Damian S. Shin, MSc, PhD, investigates mechanisms of impulsivity and dopamine dysregulation syndrome in PD, utilizing clinical data and rodent models. Dr. Pilitsis' continued collaboration with D. Gregory Fischer, PhD, and the AIM robotics group at Worcester Polytechnic Institute examines MRI-compatible robotic assistance for stereotactic procedures. She is active in organized neurosurgery, currently serving as Vice President of the AANS/CNS Pain Section, Secretary/Treasurer of Women in Neurosurgery (WINS), Vice Chair of the Workforce Group of the Council of State Neurosurgical Societies (CSNS), and a member of the AANS/CNS Guidelines Committee. She lives in Albany with her husband and two children.



## The SNS Matrix Curriculum and ACGME Milestones Projects: Closing The Loop in Training and Assessment of Neurosurgeons

Robert E. Gross, MD, PhD, FAANS Chairman, ASSFN Education Committee

### Education Committee Update: The New Matrix Curriculum For Stereotactic And Functional Neurosurgery

A large number of changes are taking place in neurosurgical resident education, and most of these will impact upon many aspects of stereotactic and functional neurosurgery. In June 2013, the normal ACGME residency review process will be replaced with the new NEXT system. There also have been extensive discussions among national neurosurgery leadership and at the *Society of Neurological Surgeons* raising concerns regarding the longevity of neurosurgical training and how that may negatively impact the quality of applicants in future years. This may result in a change whereby subspecialty training will increasingly be enfolded into the latter years of residency in order to obviate the need for subsequent fellowships. These issues will be discussed in future newsletters as they move beyond discussion to more solid plans. However, as part of the changes taking place in 2013, an entirely new curriculum system will be enacted to much more specifically outline what knowledge and techniques are necessary in each area of neurosurgery, and how these should be assessed. In this newsletter, we have asked Robert Gross, MD, PhD, FAANS, the Chairman of the ASSFN Education Committee, to outline this new Matrix curriculum. Dr. Gross does an excellent job summarizing the stereotactic and functional neurosurgery resident curriculum that he and his committee created, and that has been formally approved for use in the overall Matrix project.

The training of neurosurgeons to achieve and maintain competence, and the assessment of its effectiveness is the overlapping responsibility of several organizations, and has been undergoing rapid and major changes in philosophy, technical approach, standardization and accountability in line with similar changes throughout medicine. Neurosurgical training and assessment are within the purview of the Accreditation Council of Graduate Medical Education (ACGME) — in particular, the Neurosurgery Residency Review Committee; the American Board of Neurological Surgeons (ABNS); and the Society for Neurological Surgeons (SNS). Each has efforts underway with regard to their mandates, with the coordination being a major and recognized challenge.

Through its Committee on Resident Education (CoRE), the SNS launched the “Matrix Curriculum” project under the direction of curriculum subcommittee chairman Timothy B. Mapstone, MD, FAANS of the University of Oklahoma. The objectives of the Matrix Curriculum project are to update and standardize a comprehensive neurosurgical curriculum for all stages of training, from early learner through expert, covering each and every area of neurosurgical practice. The curriculum would integrate with each of the other stakeholders’ formats and purviews. In particular, for each curriculum item, the Matrix would specify each of the following:

1. Pertinent ACGME competencies (e.g. medical knowledge, practice-based learning)
2. ABNS primary exam key word and oral exam topic
3. Physician Performance Diagnostic Inventory (PPDI)/JSC level of educational goals. This scale specifies for each resident training level (junior, senior, chief) the level of proficiency expected (early learner, competent, proficient or expert, the last of these essentially being reserved for in-practice neurosurgeons).
4. For technical items, the RRC level of technical competency (early learner through expert), and whether an index case
5. Teaching method(s) (e.g. lectures, hands-on learning)
6. Assessment technique(s) (e.g. SANS, direct observation)

Each subspecialty area, via its sections, was tasked with developing the Matrix Curriculum for its own area. The stereotactic/functional curriculum committee, whose purview included functional, epilepsy and pain, was comprised of Emad N. Eskandar, MD, FAANS; Robert E. Gross, MD, PhD, FAANS; Michael G. Kaplitt, MD, PhD, FAANS; Alon Y. Mogilner, MD, PhD, FAANS; Erich O. Richter, MD, FAANS; Oren Sagher, MD, FAANS; Ashwini D. Sharan, MD, FAANS; and Konstantin V. Slavin, MD, FAANS. We intended that the curriculum be inclusive of all knowledge and skills that a neurosurgery resident would be expected to learn, as well as those that a subspecialty fellowship trained neurosurgeon would be expected to learn. The curriculum was sent to the SNS CoRE curriculum subcommittee in January 2012 and, along with those of the other sections, presently is under final review.

The curriculum is intended to be rapidly implemented and dynamic. The “Neurosurgery Portal,” an undertaking just launched by the SNS in collaboration with the American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS), will embody the Matrix Curriculum in a multimedia online educational portal to contain didactic material and videos that support the curriculum, as well as testing and a record of resident progress.

Whereas the SNS Matrix Curriculum concerns the training of neurosurgery residents, a concurrent effort by the ACGME called the Milestones Project is nearing implementation. Its objective is to provide new tools for summative assessments of residents in training. Unlike traditional evaluations, they will be a record of achievement, recording the mastering of certain stages of knowledge and skills necessary for safe and competent patient care. Every ACGME regulated specialty is adopting these milestones, and residents will be tracked on their progress using an ACGME Web-based tool. Resident milestone progress also will be an important part of evaluating and accrediting residency programs. The ACGME appointed a working group, chaired by Allan H. Friedman, MD, FAANS, FACS, which drafted Neurosurgery’s milestones. The

ACGME then appointed an implementation group, chaired by Nathan R. Selden, MD, PhD, FAANS, that is revising the neurosurgery milestones based on pilot testing. Nicholas M. Barbaro, MD, FAANS, FACS; and Aviva Abosch, MD, PhD, FAANS, have been representing stereotactic/functional neurosurgery on this project. Educational events are being planned to instruct neurosurgery program directors and coordinators on how to use the milestones, the first of which is a practical course (PC14) held at the 2012 CNS Annual Meeting in Chicago.

Ultimately, the ACGME milestones will be linked to the Matrix curriculum; each milestone goal will have a linked bundle of Matrix curriculum, which is a comprehensive listing of knowledge

and skills related to that goal. The milestones are a “biopsy,” the Matrix is the underlying comprehensive curriculum.

These are large and complex projects that require challenging coordination between each of the stakeholders. The final products must satisfy the growing needs to close-the-loop connecting training and its assessment, and provide greater consistency and transparency to the process. Most importantly, the new tools must be dynamic, containing built-in mechanisms capable of rapid adaptation to medicine, and its training and assessment as they evolve. Meeting these objectives will ostensibly generate a higher level of competence amongst physicians and surgeons, including those of the functional and stereotactic variety.

## ASSFN Officers and Executive Council

### ASSFN Leadership

#### *President -*

Konstantin Slavin, MD, FAANS

#### *Vice-President -*

Aviva Abosch, MD, PhD, FAANS

#### *Secretary-Treasurer -*

Emad Eskandar, MD, FAANS

#### *Past-President -*

Ali Rezai, MD, FAANS

### Board of Directors

Robert Gross, MD, PhD, FAANS (2010-2014)

Clement Hamani, MD (2010-2014)

Michael Kaplitt, MD, PhD, FAANS (2010-2014)

Peter Konrad, MD, PhD, FAANS (2010-2014)

Brian Kopell, MD, FAANS (2012-2016)

Kendall Lee, MD, PhD, FAANS (2010-2014)

Joseph Niemat, MD (2012-2016)

Parag Patil, MD, PhD, FAANS (2012-2016)

Julie Pilitsis, MD, PhD, FAANS (2012-2016)

Ashwini Sharan, MD, FAANS (2010-2014)



# American Society for Stereotactic and Functional Neurosurgery Application for New Membership

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 USA 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 *Stereotactic and Functional Neurosurgery* (including on-line 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 *Stereotactic and Functional Neurosurgery* at a reduced rate. If you are joining as a resident/fellow, associate, or senior member and wish to have the journal subscription, the fee is \$135. Please 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:

- Apply online at [www.MyAANS.org](http://www.MyAANS.org) (for Active Member applications only)
- Mail or fax this application form to ASSFN  
c/o Melody Dian  
ASSFN Administrator  
419 Oak Street West  
Frederic, WI 54837  
Fax at 866-362-1101

**All applicants will be invoiced through AANS once the application has been approved.**

For questions or concerns, contact the ASSFN administrator Melody Dian [mdian@centurytel.net](mailto:mdian@centurytel.net), secretary-treasurer, Aviva Abosch ([aabosch@umn.edu](mailto:aabosch@umn.edu)), or the membership chairman, Emad Eskandar, ([eeskandar@partners.org](mailto:eeskandar@partners.org)).

*The application may also be faxed to Melody Dian at (866) 362-1101*