

# AANS

REDEFINING  
THE SPECIALTY



2012 ANNUAL REPORT



# PRESIDENT'S MESSAGE

## We Are Neurosurgery

I am pleased and privileged to provide an annual update and review of the activities of the American Association of Neurological Surgeons (AANS) — an organization that through its broad mission and rich history, proudly represents the practice of neurosurgery for all neurosurgeons.



As has been its primary focus, the AANS continues to strive to both represent and provide benefits and services to every neurosurgeon at all stages of training and practice. These include substantial ongoing investments in resident and fellow education, mentoring, career preparation, and job placement. Further, there are the complimentary AANS resident memberships, *Journal of Neurosurgery* subscriptions,

Annual Scientific Meeting and selected course/clinic registrations (as well as the increasingly popular AANS Advanced Neurosurgical Resident Education/Training Courses), Neurosurgery Research and Education Foundation research grant and fellowship awards, and online educational content and videos. These innovations reinforce the AANS's commitment to the next generation of neurological surgeons. This year, the AANS has entered into a collaboration with the Society of Neurological Surgeons and the Congress of Neurological Surgeons to develop a Web-based digital learning portal both for residency training and lifelong learning.

For the practicing neurosurgeon, the AANS offers outstanding educational opportunities and resources through Web-based, print, and meeting offerings. Practitioners, thus, stay current in their practice area — even subspecialty neurosurgical disciplines. Finally, the AANS supports and protects all aspects of neurosurgical practice such as coding and reimbursement, liability, practice management, CME, advocacy, and professional conduct.

The *JNS* continues to be the AANS's self-published journal of record for the specialty of neurosurgery. In recognition of the tectonic shift in scientific journals to include digital publication, the Journal of Neurosurgery Publishing Group launched a new website in the early fall of 2011, [www.thejns.org](http://www.thejns.org). This site has new and markedly enhanced features and functionality that advance the reach and visibility of our most precious possession — our peer-reviewed science.

I also am proud to acknowledge that the National Neurosurgery Quality Outcomes Database entered its first patient in February 2012. By June 30, 2012, data on more than 1,000 patients had been entered by 24 contracted sites throughout North America. The N<sup>2</sup>QOD is the largest and most ambitious initiative of NeuroPoint Alliance ([www.neuropoint.org](http://www.neuropoint.org)) — a not-for-profit 501(c)(3) entity formed by the AANS in 2008 to develop an Internet-based national data submission and management platform to address a growing need for broad-based prospective practice data collection at a national and individual practice level. It is the goal of N<sup>2</sup>QOD to provide each neurosurgeon in every practice setting the opportunity to collect prospective practice data for quality improvement, MOC, PQRS qualification and/or insurance credentialing.

The planned partnership between orthopaedic surgery and neurosurgery came to fruition with the formation of the [Collaborative Spine Research Foundation](#) in November 2011. Founded as a joint 501(c)(3) initiative between two major specialty research foundations — the NREF and Orthopedic Research and Education Foundation — the stated mission of the CSRF is "to advance the science and practice of the highest quality spine care through the collaborative funding and support of clinical research."

Under the leadership of Drs. Mitch Berger and Bill Couldwell, the AANS has embarked this year on an ambitious strategic plan to dramatically expand the mission and the capabilities of the NREF, neurosurgery's flagship research and educational foundation. Founded in 1981, NREF was created to provide a source of basic science research funding grants at the resident and young investigator level. More recently, NREF also has administered post-residency clinical fellowship funding grants using its established, unbiased and independent peer-review processes. Now, through joint initiatives such as CSRF, coordination with other AANS programs such as NPA, and closer collaboration with other neurosurgical organizations and societies, NREF will be better positioned to optimally advance the science and practice of neurosurgery through research and education. As part of this plan, a new NREF fundraiser was held in Miami during the AANS Annual Scientific Meeting to honor the contributions and establish a legacy for Albert Rhoton Jr., MD, FAANS, in the form of an NREF-endowed Rhoton Research Award. More than 250 neurosurgeons attended this fundraising event,

and through a one-to-one AANS matching grant, more than \$767,000 was raised to support neurosurgical research. We look forward to the newly designed and expanded NREF under current AANS President Mitch Berger and President-elect Bill Couldwell.

The 2011-2012 AANS year culminated in the 80th AANS Annual Scientific Meeting in beautiful Miami Beach. The scientific program committee chose only the most outstanding abstracts from among the record number of abstract submissions that represented the entire spectrum of neurosurgery science and practice. Many innovative and new features and technologies also were introduced to this year's meeting. These include enhancements to our iPod touch, 3-D, simulation and new-technology demonstrations. In addition, for the first time, the science of neurosurgery was presented on a global platform, as every plenary session was webcasted live worldwide via streaming video. Interactive plenary and scientific sessions also were introduced through the newly launched AANS social network and online community, *AANSconnect* ([www.AANSconnect.org](http://www.AANSconnect.org)).

Outstanding invited speakers, clinics and seminars enhanced members' knowledge, while exceptional social events and venues truly created a unique experience for all attendees. The near-record attendance in Miami Beach is a clear reflection on the vitality, innovation, and importance of AANS efforts on behalf of its members and the neurosurgical specialty.

It has been my greatest professional honor to have presided over the American Association of Neurological Surgeons as its 79th President. I am profoundly grateful for the support and trust of the members of this great organization during this past year. Together, We Are Neurosurgery.

**Paul C. McCormick, MD, MPH, FAANS**  
**2011-2012 AANS President**



# EXECUTIVE DIRECTOR'S REPORT

The secret to success is constancy to purpose. — Benjamin Disraeli



Mistakenly thinking that simple brainstorming is progress, many professional associations label themselves as dynamic, high-volume generators of innovative ideas.

The illusion is compounded when a new service or benefit is actually introduced to members, only to die of neglect thereafter because the leaders who originally championed the new idea exit the governance stage as terms of office expire.

Unfortunately, one of the most energizing advantages associations have — the annual refreshing of their volunteer leadership's composite profile — often sentences this year's new idea to the next year's "black hole" in many organizations. As leader's agendas change, when external urgencies overshadow strategic priorities, or merely as a result of the scheduled ebb and flow of planned leadership rotations, many associations simply don't get the chance to evolve new member benefits to their next level of improvement and innovation.

One of the AANS' greatest strengths as an association is that the revitalizing and intentionally planned turnover of its leaders is guided by governance policies designed to ensure that previous initiatives evolve over multiple years and are carried forward by multiple leaderships.

Nowhere is this more evident than looking at the past year's major initiatives and recalling their origins as "new ideas."

NeuroPoint Alliance (NPA), the data-collection organization that surveys, analyzes and reports on nationwide clinical data from neurosurgical practices using online technologies, was officially established by the AANS in 2008 by the AANS Board led by then-President James Bean.

The Collaborative Spine Research Foundation, a non-profit fundraising and grants administration organization co-created by the Neurosurgery Research and Education Foundation (NREF) and the Orthopaedic Research and Education Foundation (OREF), was negotiated and finalized under the 2011-2012 Board of Directors of AANS President Paul McCormick.

The genesis of what has become the cornerstone program of the AANS' collaboration with corporate partners, the annual AANS Corporate Leadership Council weekend meeting, was in the multi-year efforts and leadership of 2007-2008 AANS President Jon Robertson.

And it was under Dr. Robertson's two consecutive years as President-Elect and President that two seminal documents in defining the

parameters of the relationships between its corporate partners and both AANS and AANS members were developed and accepted by the Board of Directors — the 2007 Neurosurgeons and Industry Policy Statement and the 2008 Guidelines on Neurosurgeon-Industry Conflict of Interest. These policies were the foundation of the dynamic development of the association's collaborative partnership with neurosurgery's corporate partners.

The creation of the "FAANS" designation for AANS members originated in 2009 by then President-Elect James Rutka.

And one of the truly watershed changes in AANS' culture, the continually evolving delivery of the AANS Annual Scientific Meeting via wireless device technology beginning with the iPod Touch, was first initiated by 2009 President Troy Tippet. The innovations and enhancements of that single decision continue to propel AANS forward in interconnected products and services to this day.

Even the primary system designed to ensure this consistency in productivity — the AANS' own strategic planning protocols — underwent radical deconstruction and subsequent rebuilding that was initiated by 2003-2004 AANS President John Popp, who over two years personally guided the implementation of the planning and ongoing assessment procedures that are still operative today.

Clearly, the consistent dedication to accurately anticipating its members' needs, and then producing services to meet those needs, have been critical core competencies of AANS as a professional association for years. But the ability to sustain and improve those priorities over multiple years and amidst changing external urgencies is one of its signature trademarks as an organization.

The themes, stories, vignettes and service initiatives highlighted in this 2012 Annual Report you are about to read illustrate those signature characteristics over and over again. The intrinsic link between previous years' innovative ideas and tomorrow's new services is actually strengthened by the annual evolution of AANS leadership, rather than weakened by it.

As always, the initiatives developed by the AANS, as well as the goals of the physician leaders who consistently drive them forward, are rooted in one primary purpose — their value to you, the AANS member. This Annual Report is a testament to years of physician members, leaders and volunteers dedicated to advancing an evolving professional association whose mission is to serve their specialty, its practitioners, and their patients.

Thank you for choosing to be a member of the AANS.

**Thomas A. Marshall**  
AANS Executive Director

# Transforming Neurosurgical Education for Practitioners Today — and Tomorrow

In today's fast-paced, constantly changing health-care environment, the AANS takes great pride in its unending effort to consistently deliver outstanding continuing medical education (CME) activities for neurosurgical practitioners and allied health professionals — helping those attending AANS educational programs to provide the best in patient care. AANS provided more than 100 CME educational activities in fiscal year 2012. These CME-accredited courses allowed individuals to conform to licensure requirements, AANS membership requirements, and Board certification and Maintenance of Certification. During FY12, the AANS offered 10 directly sponsored CME activities, some 24 jointly sponsored activities, and five resident-education courses as it pushed the envelope in providing excellent educational programs in some of the specialty's most unique areas.

Over the course of the 2012 fiscal year, the AANS made several program improvements and added a much more involved hands-on clinical course. The organization also launched new enhancements that contributed to the growth of the organization by expanding its reach, while concurrently assisting neurosurgeons, neurosurgical office staff and mid-level practitioners with their educational needs.



## Masterful Resurrection

The AANS Education and Practice Management Committee revived the AANS Master Series courses, offering *Minimally Invasive Lateral Interbody Fusion (Minimally Invasive Pedicle Screw Approaches)*. This clinical hands-on experience for board-certified neurosurgeons interested in learning a new spinal technique took place June 29-30, 2012, at the Orthopaedic Learning Center in Rosemont, Ill., under the direction of Praveen Mummaneni, MD, FAANS; and Juan Uribe, MD. This Master Series course covered the indications, contraindications, anatomy and techniques of MIS lumbar interbody fusion techniques utilizing a high faculty-to-participant ratio (15 faculty members for 24 attendees) for optimal learning. Six different industry-related suppliers presented their systems, allowing attendees to learn a new technique while trying unique systems within a balanced CME venue. The course sold out quickly, and the evaluations from the program were excellent.

## Committing Resources, Enhancing Education

Fiscal year 2012 saw numerous enhancements that contributed to the evolution and/or growth of the AANS by expanding the organization's reach and assisting neurosurgeons, neurosurgical office staff, and mid-level practitioners with their educational needs. Here are some of the most visible examples.

**Improving the AANS' coding course** — Two new breakout sessions greatly improved the coder's ability to interpret and apply CPT coding for neurosurgery. Thanks to coding workshop Director Joseph S. Cheng, MD, MS, FAANS; and Co-director John K. Ratliff, MD, FAANS, FACS, course attendees may now take advantage of two optional sessions, at no additional charge, offered prior to the course. The sessions — *Neurosurgeon's Coding Update and Revenue Strategies*, intended for neurosurgeons only and discussing RUC audits, along with new technologies and how to code for these technologies; and *Introduction to Coding with Anatomy and Terminology*, intended for beginner coders who desire additional information on neurosurgical anatomy in order to optimize the full course experience — both have been widely attended and highly rated.

**Benefiting Goodman Oral Board Review course attendees** — As a way to aid participants attending this course in FY12, cases presented by faculty who were part of the plenary session were available for viewing on a monitor outside the general session room so that all attendees could see the examples. Having this access has proved to be a tremendous benefit for those attendees who have been called out of the full plenary session for their one-on-one sessions and, thus, missed viewing these important cases. The feedback about this improvement has been excellent.

**Enhancing the AANS Mid-Level Practitioner course** — For a modest fee, those attending *From Cranial to Spine: An Overview of Neurosurgical Topics for the Mid-Level Practitioner* were able to add optional breakout sessions. The course, held Sept. 9-10, 2011, in Chicago, was again co-directed by Robert E. Wharen Jr., MD, FAANS; David Bissonette, PA-C; and Twyla Lay, NP, MS. Well-attended by 170 nurses and physician assistants, the course was expanded to two full days, with the addition of two optional hands-on sessions. Both of these additions, which took place on Saturday afternoon and covered suturing and neuro-monitoring, sold out.



### **Placing Residents at the Forefront of Neurosurgical Learning**

Since 2006, the AANS has eschewed convention and looked at new ways to promote neurosurgical learning within its resident education program. In FY12, the organization's five resident courses educated 134 residents — bringing the total numbers of residents educated in the program to 846 — as a result of the untiring efforts of preeminent faculty, and the support and assistance of AANS corporate supporters. Support for the AANS' Resident Mentoring Program also grew in FY12, and the program now has 429 mentors and 171 residents participating.

The continual effort of the Education and Practice Management Committee in conjunction with the Development Committee resulted in another year that featured outstanding partnerships between organized neurosurgery, residents and industry. Courses held in FY12 included:

***Endovascular Techniques for Residents***, Sept. 23-24, 2011, Medical Education & Research Institute (MERI), Memphis

**Course Directors:** Adam Arthur, MD, MPH, FAANS, FACS; and Erol Veznedaroglu, MD, FAANS

**Supporters:** Stryker Neurovascular-Boston Scientific; Siemens; Codman & Shurtleff, Inc.; Ev3-Covidien; and MicroVention

**Number of attending residents:** 28

***Skull Base for Senior Residents***, Nov. 3-6, 2011, MERI, Memphis

**Course Director:** Jon Robertson, MD, FAANS

**Supporters:** Carl Zeiss Meditec, Inc.; Stryker; Medtronic; Synthes CMF; and Methodist Hospital

**Number of attending residents:** 26

***Fundamentals in Spinal Surgery for Residents***, Nov. 10-12, 2011, Spine Education and Research Center, Burr Ridge, Ill.

**Course Directors:** R. Patrick Jacob, MD, FAANS, FACS; and Praveen Mummaneni, MD, FAANS

**Supporters:** Synthes Spine; DePuy Spine; Medtronic; Globus; Nuvasive, Biomet; Covidien; and Siemens

**Number of attending residents:** 40

***Pain Management for Residents***, Dec. 8, 2011, Medical Innovations and Training Institute, Henderson, Nev.

**Course Directors:** Alon Mogilner, MD, FAANS; and Ashwini Sharon, MD, FAANS

**Supporters:** St. Jude; Medtronic; Boston Scientific; and Diros

**Number of attending residents:** 15

***Peripheral Nerve/Spinal Deformity for Residents***, March 29-April 1, 2012, Vista Lab, Baltimore

**Course Directors:** Allan Belzberg, MD, FAANS; and Robert Heary, MD, FAANS

**Supporters:** Integra; Axogen; DePuy; Medtronic; Synthes; and Covidien

**Number of attending residents:** 25

**“I have attended several national and international courses, but this is the first time I can recollect wherein an expert spine faculty was assigned for two trainees to attend for a cadaver course. Each faculty stayed with us throughout and helped us understand the procedure by first demonstrating and then allowing us to perform.... They gave us all tips to avoid complications ... and the time allotment for didactic lectures and lab work was just fabulous. With the amount of dedicated faculty interested to teach the attendees using the appropriate spine instrumentation representing several manufacturing companies, this course, in my mind, is a big hit. I was able to learn a fairly new approach in a very calm and confident way, and hope to use the learned technique on some of our patient populations.”**

— Shankar Gopinath, MD, FAANS  
(AANS Minimally Invasive Lateral Interbody Fusion Course Participant)



### A New Dimension to Neurosurgical Learning

The AANS remains focused on delivering unique, beneficial and cutting-edge educational tools for its members. Following on the heels of the immensely popular 3-D *The Rhoton Collection*, the AANS released *The Rhoton Collection, Volume 2*. This volume again features three-dimensional microsurgical lectures from renowned neurosurgical educator Albert Rhoton Jr., MD, FAANS, including a two-part series on anterior skull base, as well as one discussing approaches to the brain stem. The lectures, which are available on the [AANS' iTunes U site](#) and [YouTube Channel](#), also are available in standard 2-D format. All of them retain the incredible detail of the original presentations and, like the first volume, feature an audio track synchronized with the lecture.

### Redefining Education: Paying it Forward

Allan Levi, MD, PhD, FAANS, FACS

Of the distinctions neurosurgeons can receive during their careers, few are as notable as the achievement of the American Board of Neurological Surgery (ABNS) Certification. This certification, a requirement for membership in the American Association of Neurological Surgeons, is attained only after a recipient's successful completion of the oral board exam — a comprehensive assessment of a neurosurgeon's patient management techniques and approaches to contemporary neurological topics.

Every year, before the ABNS administers the oral board exam, many test registrants flock to the AANS-sponsored *Goodman Oral Board Preparation: Neurosurgery Review by Case Management* course in Houston. Although not required by the ABNS, this prep course simulates the actual oral board exam, complete with intense questioning and guidance from experienced neurosurgeons, one of whom is Allan Levi, MD, PhD, FAANS, FACS.

"The course still has the same magic formula that Dr. Goodman started with," Dr. Levi said of the curriculum and its founder, Julius M. Goodman, MD. Launched in 1997, the interactive course is designed to prepare neurosurgeons for the rigorous ABNS testing. Dr. Levi passed the oral board exam and earned ABNS certification in May 1999. He has served on the course's faculty since November of that same year.

When Dr. Goodman passed away in 2008, Dr. Levi not only succeeded him as course director, but he adopted a similar approach to educating emerging neurosurgeons. "I get a lot of pleasure teaching the next generation of neurosurgeons and watching them grow," he said. "As a teacher, there's a great reward in seeing [course participants] develop as students and then eventually see them pass the exam."

The course's popularity has led to two offerings per year, with about 115 registrants per course. Dr. Levi is instrumental in all aspects of building the course, including the selection of its 30 faculty members. "He wants to create the best education experience for exam candidates," said Joni Shulman, AANS' Associate Executive Director. "Dr. Goodman's shoes were big ones to step into, and Dr. Levi has done him proud."



As an associate professor in the University of Miami's Department of Neurosurgery, Dr. Levi has made the educational track a key facet of his neurosurgical career. "If you work in an academic, university-based practice, [teaching] is one of your mandates," Dr. Levi said. "You do it a little or you do it a lot, but you have to love it."

The concept of mentorship also has been evident throughout the course of Dr. Levi's career. During his days as a student, interactions with his teachers influenced the direction of his clinical and research interests. "As a medical student or resident, you often have four or five doctors with whom you identify," he said of his mentors, which included Dr. Goodman. "I was totally intrigued by my mentors during my training. [Many of them] helped drive my interest in the subspecialty of spine and in spinal cord injury research."

In addition to his duties as chief of Neuro-Spine Services at Jackson Memorial Hospital in Miami, Dr. Levi is the director of the hospital's neurosurgical spine fellowship, which trains about two spine fellows every year. Despite a bevy of responsibilities, Dr. Levi makes time to prep students for the oral board exam twice a year. "I haven't missed a course. I've taught 25 courses straight, and it's a lot of fun to be involved."

*A native of Montreal, Dr. Levi completed his undergraduate and medical school studies at the University of Ottawa. He finished his neurosurgical residency at the University of Toronto in 1987 and earned a PhD in neuroscience from the University of Miami in 1994. He lives in Key Biscayne, Fla.*



# AANSconnect: How AANS Members Network and Communicate



With the proliferation of social media and the ever-expanding use of mobile technology, the opportunity to interact and engage with each other on a global scale has never been greater. Looking at this trend, as well as ways to add value for its members, the AANS developed AANSconnect — a professional networking website designed to provide neurosurgical practitioners with their own private online community.

Debuting prior to the 80th AANS Annual Scientific Meeting in April 2012, AANSconnect provided a forum for members to view the plenary sessions via a live stream from the meeting, and to interact with presenters and colleagues by posting comments in discussion forums. Members could go online and debate research, information and presentations in real time with other attendees, or discuss a presentation with a contemporary viewing the session from thousands of miles away.

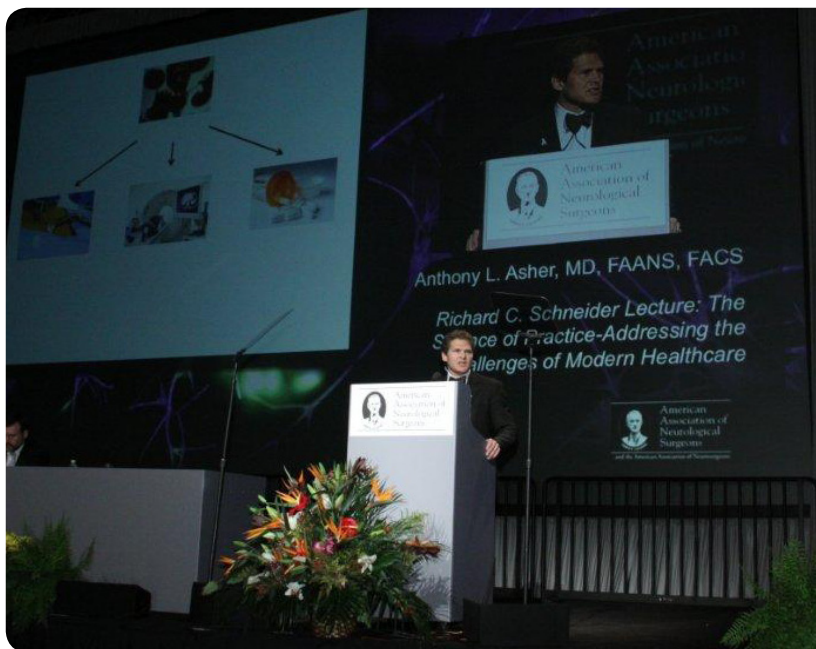
The opportunities for interaction in [aansconnect.org](http://aansconnect.org) continue, as the more than 500 electronic poster presentations — all of which were open for discussion and commentary throughout the Annual Scientific Meeting — remain available for review and comment within the website's Annual Meeting tab. Members also have the opportunity to view dozens of neurosurgical videos in the Multimedia area. The Case Study feature encourages comments on the cases, allowing members to talk about posted cases with the author or anyone in the community. Members can start or comment on discussions of interest; create or join interest groups; submit case studies or their own content and generally connect with other AANS members. All content, cases and other submissions remain private and secure, affording members a unique portal to discuss cases and topics with colleagues from around the world.

Logging in to AANSconnect is simple: All that is required to get started is the member's MyAANS username and password. Member profiles go beyond the typical geographic criteria offered in online directories — each member can post information not only to his or her profile, but to the full community. With AANSconnect, neurosurgeons also can find each other by subspecialty designations, research, professional interests and more. Members can customize privacy and notification settings to their degree of comfort. In addition, once logged in, users can create link lists, mark favorites, rate videos and content — affording members the opportunity to truly customize their online experience.

## NeuroPoint Alliance: Advancing Patient Care Through the Science of Practice

A core mission of the AANS is to support the delivery of the highest quality neurosurgical care by its members. Organized neurosurgery believes that prospective, systematic tracking of practice patterns and patient outcomes will allow neurosurgeons to improve the quality, efficiency, and, ultimately, the value of care. In support of this mission, the AANS — in cooperation with other neurological societies, including the Congress of Neurological Surgeons (CNS), Society of Neurological Surgeons (SNS) and the American Board of Neurological Surgery (ABNS) — created the [NeuroPoint Alliance](#) (NPA) in 2008. NPA is a not-for-profit 501(c)(3) corporation that coordinates a variety of national projects involving the acquisition, analysis and reporting of clinical data from neurosurgical practice, using online technologies.

NPA is designed to meet the quality care and health-care research needs of individual neurosurgeons and neurosurgical practices, national organizations, health-care plans, the biomedical industry, and government agencies. "Its services are focused on several areas including data collection for the ABNS [Maintenance of Certification and NeuroLog], Pay for Performance programs, registries and clinical trials, and opinion research," said 2011 NPA President Paul C. McCormick, MD, MPH, FAANS.



NPA's largest initiative is the [National Neurosurgery Quality and Outcomes Database \(N<sup>2</sup>QOD\)](#). "The N<sup>2</sup>QOD allows any U.S. neurosurgeon, practice group or hospital system to contribute to and access aggregate quality and outcomes data through a centralized nationally coordinated clinical registry," [N<sup>2</sup>QOD Director Anthony L. Asher, MD, FAANS, FACS](#), said. "The primary purpose and design of the registry is to track quality of surgical care for the most common neurosurgical procedures. It is the only national patient registry effort for neurosurgeons, by neurosurgeons, dedicated solely to the optimization of patient-centered care."

NPA chose the Vanderbilt Institute of Medicine and Public Health (VIMPH), a nationally recognized leader in the field of health-services research and quality improvement, to manage the collection and analysis of N<sup>2</sup>QOD data. "This year, N<sup>2</sup>QOD started collecting data on the most common lumbar spine procedures and diagnoses," noted N<sup>2</sup>QOD Vice Director Matthew J. McGirt, MD. The multi-year goal of N<sup>2</sup>QOD will be to collect quality and outcomes data on all major conditions treated by neurosurgeons.

N<sup>2</sup>QOD formally launched its Lumbar Spine Module on Feb. 22, 2012. By fiscal-year end, N<sup>2</sup>QOD had a little more than 1,000 patients enrolled across [21 participating sites](#), with a total of 23 contracted sites. NPA obtained a determination from the U.S. Department of Health & Human Services' Office for Human Research Protections

that N<sup>2</sup>QOD program activities do not constitute as human subject research, and to date all 23 N<sup>2</sup>QOD sites are participating with waiver of written consent for obtaining patient-reported outcomes.

"N<sup>2</sup>QOD continues to grow," Dr. Asher said. "Its Cervical module is nearly complete and is scheduled for release in the Fall of 2012. Other modules in development include an Essential module for smaller practices that may not make the current patient enrollment criteria and a Cranial module."

The N<sup>2</sup>QOD infrastructure is designed to support essential multi-center trials and other clinical studies similar to NPA's first cooperative research project, [Neuropoint-SD](#), which was successfully completed in cooperation with the AANS/CNS Section on Spine and Peripheral Nerves.

NPA is committed to developing data collection products and services that are relevant to the broad spectrum of neurosurgical procedures, data reporting requirements and practice types. NPA looks forward to working with all relevant stakeholders to promote a coordinated, national effort to define and develop patient-oriented outcomes measures and data collection tools to improve the quality, safety and value of neurosurgical care.

## Building The Essentials

NPA currently is working with the ABNS regarding refinements to its existing Maintenance of Certification (MOC) program, and it is anticipated that the N<sup>2</sup>QOD Essentials program will help satisfy practice data requirements of MOC. It also is expected that the Essentials program will satisfy public reporting requirements as neurosurgery-specific quality measures are incorporated into the Centers for Medicare & Medicaid Services' Physician Quality Reporting System.

# AANS

## Redefining Research: Beginning with the Patient in Mind

Zoher Ghogawala, MD, FAANS

The most-skilled neurosurgeons understand that patient engagement is necessary for reshaping the neurosurgical sphere. For Zoher Ghogawala, MD, FAANS, patient care has been at the forefront of his clinical and research efforts, even during his days as a student at Harvard Medical School.

"I was intrigued by neurosurgery during my last year of medical school, and saw how this particular specialty was engaged in the union of high technology, complex surgery, and a close connection between surgeon and patient," Dr. Ghogawala said. Patient connections have been at the center of his role as director of the Wallace Trials Center at Greenwich Hospital in Greenwich, Conn., where he has served as the lead investigator on a number of studies regarding the treatment of back pain and other spinal ailments.

"I was attracted to spine because of the uncertainty," he said. "I knew that spine was an area where I could make an impact by tackling the big questions." While an impetus in his research interests, the ambiguity of spine research offers a unique set of hurdles, and he noted that "spine results are not easy to measure."

The research impediments presented by spinal treatments have not deterred Dr. Ghogawala and groups such as the Collaborative Spine Research Foundation (CSRF), a joint initiative of the Neurosurgery Research and Education Foundation (NREF) and the Orthopaedic Research and Education Foundation (OREF). Among the goals of the CSRF is the advancement of high-quality spine care through cooperative funding and clinical research advocacy.

"CSRF is uniquely positioned to develop an infrastructure for answering questions regarding the effectiveness of spinal surgery," said Dr. Ghogawala, who serves as a CSRF board member and describes the organization as a funding mechanism and a research enterprise. "The NREF and the OREF are speaking with one voice to put the questions of spinal research in front of scientists who have the capability to answer the questions, but would otherwise lack the infrastructure in which to address them."

In 2011, Dr. Ghogawala led an inquiry evaluating the effectiveness of laminectomies and spinal fusion surgeries. The SLIP Study, as it is known, also demonstrated how treatment efficacy can be gauged despite the challenges that accompany outcome assessment. "The SLIP Study doesn't identify one strategy that is superior for all patients," he said. "It identifies two characteristics of two comparable strategies so that patients and neurosurgeons can determine what option is best."

Options create what Dr. Ghogawala considers a new realm for neurosurgeons and their patients. "Neurosurgeons should remain top-flight technical surgeons," he said, "and they must be scientifically sophisticated enough to choose the right procedure for the right patients."

Dr. Ghogawala, who also serves as co-chair of the National Neurosurgery Quality Outcomes Database's (N<sup>2</sup>QOD's) Scientific Advisory Committee, noted that the aim of both of these projects is the same. "In the absence of high-quality data, many patients may be treated with the wrong procedure," he said. "[The research] is about obtaining facts that patients and doctors can use in a meaningful way."

Dr. Ghogawala asserts that patient information is central to the bottom line of research. "The ability of physicians to share information is likely to result in better patient outcomes," he asserted. "Patients can set expectations in a reasonable context, and they have a hand in advancing their own recovery."

*Dr. Ghogawala is the clinical assistant professor of neurological surgery at Yale University School of Medicine in New Haven, Conn. A graduate of Harvard Medical School, he completed his residency training at Massachusetts General Hospital. He serves on the executive committee of the AANS/CNS Joint Spine Section.*



# Reshaping the Definition: We Are Neurosurgery

## Record Submissions, New Programs, Outreach Initiatives Showcase Specialty's Diversity and Growth

The 2012 AANS Annual Scientific Meeting, the organization's 80th convention, truly embraced its theme of "We Are Neurosurgery." Attendees from around the world and every facet of the specialty descended upon Miami April 14-18, 2012, engaging in a wide swath of educational programs, social events, fundraising opportunities and community outreach initiatives that showcased the many positive ways that neurosurgery impacts society. The Scientific Program Committee had to sort through more than 900 abstract submissions — a record number — as some 3,342 medical attendees and nearly 6,900 Annual Scientific Meeting attendees listened and learned from an outstanding collection of speakers and presenters.

Saturday featured numerous internationally focused programs, including practical clinics and an international symposium with partner organization FLANC (the Latin American Federation of Neurosurgical Societies), concluding with FLANC's international reception. Following Sunday's full day of practical clinics, all attendees were invited to sit in on a new town hall-style discussion with former U.S. Senator Alan Simpson, who shared his thoughts on health-care reform and took questions from the audience on a wide range of topics. The evening concluded with the Opening Reception, where attendees were able to roam among the animals and mingle with colleagues on Jungle Island.

The plenary sessions at the 2012 AANS Annual Scientific Meeting began on Monday, and for the first time, viewers from around the world could view the presentations live via streaming video through a portal AANS created on its *AANSconnect* professional networking site. Monday also saw the AANS, in conjunction with ThinkFirst National Injury Prevention Foundation and WalkSafe, educate 90 children on helmet safety as part of a bike-helmet fitting at the Fienberg Fisher School in Miami Beach, Fla. AANS members, including those from the Young Neurosurgeons Committee, gave presentations on how to prevent head injuries, which coincided with the AANS' National Neurosurgery Awareness Week program about concussion awareness. In addition, every child received an AANS bike helmet.



Another first occurred during Tuesday's program, as a 180-minute program titled "Operative Nuances for Managing Complex Cranial Cases: A 3-D Video Presentation" was moderated by Aaron Cohen Gadol, MD, FAANS, with Robert Spetzler, MD, FAANS; William Couldwell, MD, PhD, FAANS; Hunt Batjer, MD, FAANS, FACS; and Gary Steinberg, MD, PhD, FAANS, serving as faculty. The session — which was standing-room only — utilized vivid high-definition 3-D to help review crucial technical nuances that can help improve patient outcome in complicated cranial cases. All attendees, whether in person or watching online, could text or ask questions about the techniques being shown.

The AANS also held a unique tribute program for Albert L. Rhoton Jr., MD, FAANS, as the Albert L. Rhoton Tribute for the Establishment of the Rhoton Endowment for Research, through the NREF, gave the entire specialty the opportunity to honor the father of microscopic neurosurgery. The endowment's funds will provide future research and training opportunities specifically geared to promote continuous learning in microsurgical advances. The fundraiser featured both live and silent auctions, donations, corporate support and a special tribute book — and with AANS matching donations at a one-to-one ratio, well over a half-million dollars was raised for the new endowment. Held at Bongos Cuban Café in downtown Miami, a kaleidoscope of the profession came together to both show their appreciation to a "legend" of the field, as well as to enjoy camaraderie and entertainment, the latter of which was provided by the Grammy-award winning band The Sound Machine.



## An Overview of the 2012 AANS Annual Scientific Meeting

- A record-breaking 900-plus abstract submissions were received.
- New offerings and special events included Town Hall Discussion with former U.S. Senator Alan Simpson and the Albert L. Rhoton Tribute for the Establishment of the Rhoton Endowment for Research.
- Plenary Sessions were streamed live and available to a worldwide audience via AANS' unique AANSconnect community.
- All Annual Scientific Meeting content was distributed through a new and expanded AANS Mobile Membership Application, allowing cross-platform accessibility to content for the first time.
- Through AANSconnect, both on- and off-site attendees were able to engage with presenters, discussants, and each other by posting questions and comments in online discussion forums.
- 17 general scientific sessions and three plenary sessions were held.
- 177 oral abstract presentations were given.
- Nearly 700 electronic poster presentations were displayed.
- 750 exhibit booths featured 217 companies.
- 71 educational breakfast seminars and 40 practical clinics were held.



## Acknowledging Pioneers Who Are Redefining Neurosurgery

- Cushing Medalist: Donald O. Quest, MD, FAANS
- Distinguished Service Award: James R. Bean, MD, FAANS
- Humanitarian Award: A. Leland Albright, MD
- AANS International Lifetime Recognition Awardee: Leonidas Quintana, MD

## Unique Lectures Highlight Specialty-transforming Topics

- Cushing Orator: J. Craig Venter, PhD
- The Rhoton Family Lecturer: Ziya L. Gokaslan, MD, FAANS, FACS
- The Hunt-Wilson Lecturer: Philip A. Starr, MD, PhD, FAANS
- The Ronald L. Bittner Lecturer: Jeffrey N. Bruce, MD, FAANS, FACS
- The Richard C. Schneider Lecturer: Anthony L. Asher, MD, FAANS
- The Theodore Kurze Lecturer: Brian Greene, PhD
- The Louise Eisenhardt Lecturer: Cynthia Breazeal, DcS
- The Van Wageningen Lecturer: Karin Muraszko, MD, FAANS



## Redefining Programing: Building an Interactive Experience

Carl B. Heilman, MD, FAANS

Those who experienced the 80th AANS Annual Scientific Meeting saw first-hand the fruits of labor put forth by Carl B. Heilman, MD, FAANS, who chaired the 2012 edition — that's after heading up the Scientific Program Subcommittee in 2011, and serving as Program Evaluation Chair and Scientific Poster Chair 2010 and 2009, respectively — as part of a four-year commitment to the recurring event.

The Annual Scientific Meeting is “one of the most important things that the AANS does,” Dr. Heilman said. “It's where people share their science and discoveries, and learn new techniques.”

No wonder neurosurgeons of various subspecialties come together once a year for the interactive gathering.

“I certainly think you have a lot to learn from your colleagues, particularly those who practice a slightly different field as your own,” Dr. Heilman asserted. “The spine expert can teach the cranial expert something. The cranial expert can teach the aneurysm expert something... Plus, there are many issues that face all of us — coding, call schedules, reimbursement, advances in imaging ...”

Through education and the promotion of “good science,” the AANS is redefining the specialty of neurosurgery, including “the treatments that are the most effective and least invasive, and provide patients with the best outcomes,” Dr. Heilman said.

After all, he noted, “The whole specialty is evolving, and I'm sure we'll continue to see it evolve. We are seeing tremendous strides, in radiation, endovascular techniques, surgery... we're still looking for cures for malignant gliomas. It's a gradual evolution.”

To that end, the Scientific Program Committee strives to build the best educational sessions it can.

The main function of the committee, Dr. Heilman explained, “is to look at the scientific abstracts that are submitted, and help prioritize which ones were performed in the most rigorous scientific fashion, are of the most interest to members and should be presented at the meeting.” The group also organizes practical courses and assigns faculty.

Just how are session topics selected? Although the theme — this year's was “We Are Neurosurgery” — plays a role, according to Dr. Heilman, the committee also looks at “what treatments or surgical therapies are at the cutting edge and what techniques have emerged or evolved” that can be put into practice.

Speaking of cutting-edge technologies, there have been many benefits to the AANS Annual Scientific Meeting going paperless.

“No. 1, it allows the meeting information and platform to continue to live on after the meeting is over,” Dr. Heilman said, which is helpful moving forward, as it provides “more advanced ability to interact with speakers and to comment on research that's published for people who weren't present at the meeting to get involved in the science of the meeting.”

As such, the AANS Annual Scientific Meeting becomes “a continuous, living experience that builds onto the following year,” turning “what used to be a one-time, 20-minute presentation into a lasting interaction, with interplay and exchange with scientists,” he explained. “To me, this is going to be huge in the future.”

As for this year's heavily attended 3-D sessions, Dr. Heilman said, “I think everyone is hungry to learn new surgical techniques from people who are considered masters or the best. To have 3-D video of actual surgeries allows you to see how our best colleagues perform various techniques — and since that's really what we do, every day, day in and day out, it's crucially important to members.”

Although he is not participating in the planning of the 81st AANS Annual Scientific Meeting, Dr. Heilman will no doubt attend and take part in courses — but that doesn't mean he still isn't actively involved in his specialty. “Right now, I'm president of the North American Skull Base Society,” he noted, “so that keeps me pretty busy.”

*Dr. Heilman is chair of the Department of Neurosurgery at Tufts Medical Center and Tufts University School of Medicine. He graduated from Allegheny College in 1982 and earned his MD degree from the University of Pennsylvania School of Medicine in 1986. He completed his neurosurgery residency at Tufts Medical Center, where he was chief resident in 1993, before performing a skull base surgery fellowship at the University of Tennessee and the Semmes-Murphy Clinic.*





### “Gunning” For Top Honors

Over the past seven years, residents and fellows have been able to test their mettle and skills against other residents and fellows during the Neurosurgical Top Gun Competition. This program, which is presented by the Young Neurosurgeons Committee, takes place over three days during the AANS Annual Scientific Meeting. At this year’s program in Miami, the event included stations for bone scalpel, lumbar pedicle screw, ventriculostomy simulator and thoracic pedicle screw. Supporters for the exciting 2012 contest were Aesculap, Inc.; Codman; DePuy Synthes Spine; Immersive Touch; Medtronic; and the University of Florida.

As a result of the generous assistance from these corporate supporters, awards were presented to the Neurosurgical Top Gun and his/her institution, along with the each of the individual station winners. The following well-deserving award winners received these honors:

- **Overall Top Honors (the Neurosurgical Top Gun):** Amer Khalil Ahmad Khalil, MD (resident); Cleveland Clinic, Cleveland (to graduate June 2014)
- **Institutional Top Honors:** Cleveland Clinic
- **Top Honors for the Bone Scalpel Station:** Anthony Chin-Hsiu Wang, MD (resident); University of Michigan, Ann Arbor (to graduate June 2014)
- **Top Honors for the Lumbar Pedicle Screw Station:** Joffre Olaya, MD (resident); Loma Linda University, Loma Linda, Calif. (to graduate June 2013)
- **Top Honors for the Ventriculostomy Simulator Station:** Sumeet Vadera, MD (resident); Cleveland Clinic (to graduate June 2014)
- **Top Honors for the Thoracic Pedicle Screw Station:** Baher Labib Hanna, MD (resident); Alexandria University, Alexandria, Egypt (to graduate June 2013)

### Third Time Is Charming for iPod touch Technology

For the third consecutive year, attendees at the AANS Annual Scientific Meeting were able to access all of the programs, presentations, electronic posters and much more via iPod touch technology. Users again were asked to download the app for their devices in advance of the meeting, and many attendees utilized the iPhone, iPod touch and iPad to access content during the program. Attendees were able to get real-time updates on news items and programs taking place during the Annual Scientific Meeting via the News tab, use interactive maps to help them locate educational sessions or exhibitors, and access the entire meeting’s program at the tap of a screen.

### iPod touch Initiative Supporters

- Baxter Healthcare
- Carl Zeiss Meditec
- Codman
- DePuy Synthes Spine
- Elekta
- Integra LifeSciences
- Leica Microsystems
- Mayfield Clinic
- Medtronic
- Pro Med Instruments

# Outreach That Engages Members and Impacts the Public

The AANS continues to utilize the incredibly diverse media environment to communicate with its members on the specialty's most pressing topics, as well as interact with the public on the importance neurosurgery has in relationship to today's wide range of health-related issues.

Fiscal year 2012 marked the first year of an entirely online "publication" for [AANS Neurosurgeon](#), which remains focused on publishing articles and content that benefit the specialty and help those engaged in neurosurgical practice. The online quarterly magazine comprises issues themed around a breadth of topics, including low-back pain; stereotactic radiosurgery; the pros and cons of hospital-based employment; and neurosurgeon as patients, in addition to numerous peer-reviewed articles and department pieces. One article — "Are Physician-Owned Distributorships (PODs) Ethical?" — dovetailed nicely with a presentation given by author James R. Bean, MD, FAANS, during the 80th AANS Annual Scientific Meeting. These and other developments — such as daily updates to the Newline area of the homepage, which focuses on clinical and scientific news related to neurosurgery, as well as daily updates to the *AANS Neurosurgeon* Twitter feed, [@AANSNeurosurg](#) — have dramatically boosted readership. In fact, according to Google Analytics, the publication's website garnered some 26,543 visits in FY12 (vs. 12,542 in FY11), 20,464 unique visitors (vs. 9,644 in FY11) and 56,285 pageviews (vs. 33,175 in FY11) — an increase of 112 percent, 112 percent and 70 percent, respectively, in each category.

A renewed focus on delivering key messages on behalf of the AANS, the Journal of Neurosurgery Publishing Group and other partner organizations helped the organization receive outstanding media coverage in fiscal year 2012. Reporters affiliated with more than 130 media outlets, including the Associated Press, *The New York Times*, *London Free Press*, *The Philadelphia Inquirer*, *The Tampa Tribune*, *London Daily Telegraph*, *The Times of India*, *The Oakland Post*, *The Boston Globe*, *Buenos Aires Herald*, *The Los Angeles Times*, *AARP Bulletin*, *MSN Health*, *Yahoo! Health*, *National Geographic*, *Today's Parent*, *Men's Health* and *Best Health*, contributed more than 1,200 articles discussing the AANS and its members. This coverage presented the opportunity for the association and the neurosurgical specialty to potentially make hundreds of millions of media impressions. More importantly, the AANS received significant measurable value through its visibility, with the aforementioned articles providing the organization with an estimated advertising value of \$21,906,402 in FY12, according to metrics generated by Cision, Inc.



## Concussion-related Programs Help Neurosurgery Drive Prevention, Awareness Home

In 2012, concussion awareness and prevention programs were a critical component of the AANS' white-coat message, as organized neurosurgery emphasized the importance of taking all the necessary precautions to avoid concussion and other sport-related traumatic head injuries. The AANS served as one of the leaders in this effort, working with other organizations such as CNS, the AANS/CNS Section on Neurotrauma & Critical Care, ThinkFirst, and the Council of State Neurological Societies in creating "Concussion and Sports: Useful prevention and treatment information for your community from America's neurosurgeons." The presentation, which was made available in September 2011, coincided with a press release that generated coverage from nearly 250 newspapers and Web-based media outlets over the next several months. AANS members, who can access the presentation at anytime via the resources area of [MyAANS.org](#), were encouraged to go out into their communities and share this information with schools, coaches, park districts, and parents.

Follow-up media calls continued throughout FY12, with AANS members prominently featured on the topics of concussion and stroke prevention in a 12-page special "Brain Health" weekend insert in *The Los Angeles Times*. The insert, which was sent to more than one million households in the Southern California region in March 2012, served as a perfect precursor to the continuing concussion-awareness efforts made by the AANS via National Neurosurgery Awareness Week (NNAW). As part of NNAW, the AANS sent out several press releases and arranged for interviews about the importance of understanding concussion symptoms and encouraging parents, coaches, and players to "make concussion awareness a part of their playbook." This initiative generated nearly \$2.4 million in estimated ad value for the AANS in FY12, according to Cision, Inc.



## Press Coverage Puts Research on Center Stage at AANS Annual Scientific Meeting

The AANS Public Relations Committee selected 11 scientific abstracts to spotlight to the media as part of the 2012 AANS Annual Scientific Meeting. The cutting-edge science noted in those releases — which highlighted research on topics ranging from the impact a cancer vaccine may have on glioblastoma multiforme to how resident duty-hour restrictions could affect neurotrauma patients to the relationship that states' medicolegal environments have on the practice of defensive neurosurgical medicine — generated tremendous interest. The outlets reporting on these scientific presentations included *Bloomberg News*, *Fox News*, *U.S. News & World Report*, *HealthDay News*, *The Miami Herald*, *The Tampa Tribune*, *The New York Times*, *London Globe*, *The Boston Globe*, *Houston Chronicle*, *CBSNews.com*, *Yahoo! News* and *MSN.com*. In addition, journalists from Italy, the U.K., Israel, Hungary, Japan and Australia were on hand in Miami



to cover the AANS Annual Scientific Meeting. As a result, these 11 abstracts generated \$3.9 million in estimated ad value and 523 million potential media impressions, according to Cision, Inc.

## Embracing the Breadth of a Global Profession



The AANS strives to build relationships with the international neurosurgical community. Collaborating with international organizations and reaching out for international members help AANS members to keep abreast of important issues affecting neurosurgery worldwide, learn about pending innovations in patient care, and facilitate collaboration. International outreach initiatives bring value through membership diversity.

This year, the AANS presented the [AANS International Lifetime Recognition Award](#) to Leonidas Quintana, MD. The AANS' most prestigious international award, it recognizes an international neurosurgeon or other international dignitary for his or her lifetime of contributions to advancing the field of neurosurgery in a country outside the U.S. and Canada.

Dr. Quintana has served as president of the Chilean Society of Neurosurgery, the South Cone Society of Neurological Surgeons and the Latin American Federation of Neurosurgical Societies (FLANC). An international member of the AANS and numerous other societies, he presently is the second vice-president of the WFNS, representing Latin America, and also has served as honorary president of the Latin American Federation of Neurosurgery. Dr. Quintana is chief of

neurosurgical service at Valparaíso, Chile's Carlos Van Buren Hospital, as well as an associate professor of neurosurgery in Valparaíso University's department of neurosurgery in Vina del Mar, Chile.

AANS Annual Scientific Meeting attendees met Dr. Quintana at the AANS International Reception, held this year at Bongos Cuban Café, where "Miami meets Old Havana's tropical ambiance, cuisine and style." AANS leaders, special dignitaries speaking in this year's FLANC International Symposium and leaders from international neurosurgical organizations all attended. Reception guests enjoyed spectacular views of the Miami skyline, Latin and Cuban-inspired hors d'oeuvres, and lively music.

The AANS offers other awards focused on international attendees. The Best International Abstract Award is given to the highest-ranking international abstract submitted to the AANS Annual Scientific Meeting. This honor went to Akio Morita, MD, PhD, from Shinagawa-ku, Tokyo, for his abstract, *The Natural Course of Unruptured Cerebral Aneurysms: Natural Course Analysis of the Unruptured Cerebral Aneurysm Study in Japan*. Meanwhile, the AANS International Travel Scholarship provides \$1,500 to support the attendance of a neurosurgeon from a developing country to the AANS Annual Scientific Meeting. The 2012 recipient was Xiaolei Chen, MD, from Beijing for his abstract, *Low-grade Insular Glioma Resection with 1.5T Intra-operative MRI: Preliminary Results of a Prospective Randomized Trial*.

Additionally, the AANS offered two AANS International Visiting Surgeons Fellowships. 2012 recipients were Victor Andronachi, MD, from Chisinau, Moldova; and Venkatesh Madhugiri, MD, from Pondicherry, India. Dr. Andronachi visited St. Joseph's Hospital and Medical Center in Phoenix under the observation of Robert F. Spetzler, MD, FAANS. He focused his observational fellowship on advancing the study of skull-based microsurgery, and building and developing a laboratory of cadaver dissection required for training of the neurosurgeon residents. Meanwhile, Dr. Madhugiri will visit LSUHSU in Shreveport, La., under the observation of Anil Nanda, MD, MPH, FAANS, FACS. There, he will focus on observing complex neurosurgical procedures pertaining to his area of interest, and study the structure and organization of an academic neurosurgical department, including research facilities.



## Working for You in Washington

The mission of the AANS/CNS Washington Committee is to represent, develop and promote organized neurosurgery's positions on issues affecting the specialty.

Through advocacy, policy development, political action and public relations, the Washington Committee and Washington Office worked around the clock in fiscal year 2012 to defend and protect the ability of neurosurgeons to practice medicine freely — and to help ensure the continued advancement of the specialty of neurological surgery. The Washington Committee has played a fundamental role in a number of health-policy developments, including repealing the Independent Payment Advisory Board (IPAB), pushing for medical-liability reform, advocating for adequate reimbursement, streamlining quality-improvement initiatives, and ensuring the preeminence of quality in neurosurgical education and training. Organized neurosurgery continues to be at the forefront of health-policy debates, and constantly makes it clear to policymakers in the nation's capital that we are dedicated to advancing the specialty of neurological surgery in order to promote the highest quality of patient care and create a system that offers greater value tomorrow than it does today.

### Reforming the Reform

Throughout the health-reform process — from early conceptual dialogues to the Supreme Court ruling to the ongoing work of implementation and modification — the Washington Committee and Washington Office have served as a prominent voice in shaping key legislative alternatives and repeal efforts relating to the Affordable Care Act (ACA). The AANS and CNS strongly support improving our nation's health-care system, but firmly believe that the ACA goes far

beyond what is needed to fix what is currently broken. Rather than enacting a carefully targeted set of reforms that would improve access to affordable health insurance, the law fails to address significant problems with the current system and represents an unnecessary expansion of government into the practice of neurosurgery that will ultimately adversely affect patient access to timely neurosurgical care.

The Washington Committee and Washington Office spent much of the past year focusing on top-priority items — including abolishing the IPAB, passing medical-liability reform, and rescinding the Physician Quality Reporting System (PQRS) and Value-Based Payment Modifier penalties — and has made significant progress towards accomplishing these goals.

The Washington Office staff has continued to hold a leadership position in the Health Coalition on Liability and Access (HCLA), and, in FY12, the AANS and CNS helped launch a new coalition of physician groups dedicated to repealing the IPAB. Neurosurgery's leadership efforts in these two coalitions facilitated passage of H.R. 5, "The Protecting Access to Healthcare Act," by the U.S. House of Representatives. This bipartisan bill repeals the IPAB and adopts meaningful medical liability reform modeled on the systems in place in California and Texas. During the debate on the bill, several amendments were considered. Reps. Charlie Dent (R-PA) and Pete Sessions (R-TX) offered an amendment that addresses the crisis in access to emergency care by extending liability coverage to on-call and emergency room physicians under the Federal Tort Claims Act. In addition, Reps. Cliff Stearns (R-FL) and

Jim Matheson (D-UT) offered an amendment to grant limited civil liability protections to health professionals that volunteer at federally declared disaster sites. The AANS and CNS not only supported both of these amendments, which passed, but neurosurgery was instrumental in developing and passing these bills.

Working with the AANS' NPA and its N<sup>2</sup>QOD project, the Washington Committee continued to advocate for changes to the federal government's quality-related programs. As currently constructed, programs such as the PQRS and the Value Based Payment Modifier only seek to penalize health-care providers, without adding value or improving patient care. Throughout the year, neurosurgery participated in numerous meetings with key policymakers at the White House, Centers for Medicare and Medicaid Services (CMS), Office of Human Research Protection, Department of Health and Human Services' Office of Civil Rights, National Quality Forum and Patient Centered Outcomes Research Institute. Paul C. McCormick, MD, MPH, FAANS; Anthony L. Asher, MD, FAANS, FACS; and Matthew J. McGirt, MD, in particular, were tireless in their efforts to promote neurosurgery's clinical outcomes registry projects and to help ensure that the NPA can become certified as a PQRS registry so as to provide neurosurgeons with the tools to meet CMS' quality program requirements.

### Advocating for Adequate Reimbursement

With an aging population and rising health-care costs, the current Medicare program is on an unsustainable path and, yet again, physician reimbursement is on the chopping block. As 2011 came to a close, Congress passed another temporary reimbursement "patch," extending 2011 rates through the end of 2012. If Congress fails to act by the end of 2012, neurosurgeons will face a 27 percent cut in reimbursement, effective Jan. 1, 2013. These cuts result from Medicare's flawed sustainable growth rate (SGR) formula. Neurosurgery continues to press Congress to avoid kick-the-can solutions for fixing the physician payment system, and once and for all replace the SGR formula with a stable mechanism for updating and reimbursing physicians. Facing dim prospects for full SGR repeal, however, the AANS and CNS pursued other avenues for improving Medicare reimbursement. To this end, in FY12, neurosurgery led the effort to introduce legislation that would remove Medicare's current balance-billing restrictions, and allow patients and physicians to privately contract without penalty. The My Medicare-My Choice campaign is in full swing, and through our collaborative efforts with the Coalition of State Medical and National Specialty Societies, the American Medical Association established a new campaign website and physician and patient education materials aimed at gaining support for the Medicare Patient Empowerment Act.

In FY12, the AANS and CNS continued to aggressively challenge third-party payer coverage policies, which limit reimbursement for many common neurosurgical procedures — particularly in the area of spine. The AANS/CNS Coding and Reimbursement Committee, in collaboration with the AANS/CNS Joint Sections, have formed coverage policy "rapid response teams" to help in these efforts. Led by Joseph S. Cheng, MD, MS, FAANS, the rapid response teams have successfully influenced changes in coverage policies put forward by Blue Cross-Blue Shield, CIGNA, Wellpoint and others. These responses are made available to AANS members, who may find them useful in their own interactions with insurance carriers.

### Empowering Grassroots Advocates

Throughout the year, the AANS actively engages its members in the political process through grassroots activities, calls to action and participation in NeurosurgeryPAC. In FY12, the Washington Committee issued multiple grassroots alerts calling on neurosurgeons to communicate with their elected officials on such issues as the IPAB, medical-liability reform, SGR, Medicare private contracting, quality-related penalties and overall Medicare reform. Additionally, neurosurgeons brought their message directly to Capitol Hill by attending the Alliance of Specialty Medicine's Annual Legislative Conference. Finally, hundreds of neurosurgeons donated to NeurosurgeryPAC, which had its most successful fundraising year ever, raising more than \$250,000.



### Taking Our Message to Policymakers and the Public

In addition to its direct lobbying and grassroots advocacy in Washington, D.C., the Washington Committee is building support for neurosurgery's health-policy positions by carrying out a nationwide earned media campaign, and providing the print and electronic media with timely information that can be used for positive and educational reporting. In FY12, the Washington Office also began using a variety of social media platforms to reach opinion influencers in the media, on Capitol Hill and in various health-policy circles that wouldn't have been easily achievable through more traditional means. These social media tools include:

- [Neurosurgery Blog: More Than Just Brain Surgery](#), a Web-based opinion and perspective column, through which the AANS and CNS offer insights and perspective on contemporary health issues as they relate to organized neurosurgery.
- An [@Neurosurgery](#) Twitter feed that is used to gain greater visibility for neurosurgery's advocacy efforts. Followers consist primarily of media, congressional and health-policy communities. Tweets focus on health-policy updates and provide links to positive stories about neurosurgery.
- Facebook and LinkedIn sites that help drive health-policy influencers to information on *Neurosurgery Blog* and the Twitter feed, while also spotlight AANS and CNS initiatives that are newsworthy.

Last year, the @Neurosurgery Twitter feed "touched" more than 1.1 million Twitter users. Notably, when the *Roll Call* newspaper tweeted a guest opinion piece by Washington Committee Chair Alex Valadka, MD, FAANS, FACS, the article was retweeted multiple times by key health policy influencers — including House Speaker John Boehner (R-OH) — reaching an audience of 297,525 people within a day.

## Redefining Mentorship: A Natural-Born Neurosurgical Leader

Karin M. Muraszko, MD, FAANS

It is obvious to anyone who meets Karin M. Muraszko, MD, FAANS, that she has a passion for neurosurgery. That enthusiasm was evident at the 80th AANS Annual Scientific Meeting, where Dr. Muraszko presented the 2012 Van Wagenen Lecture.

“All surgeons are leaders by virtue of their jobs,” she told an audience of her peers. Dr. Muraszko is proof of this theory. Not only is she an inspiration to her fellow female neurosurgeons, but she is an example for everyone within the specialty who strives to better themselves, their patients, the neurosurgical community and beyond.

As a child, Dr. Muraszko was diagnosed with a form of closed spina bifida and experienced first-hand how a physician’s perception of a patient can affect how the latter feels. This may be why, at an early age, she began thinking about becoming a doctor. She went on to specialize in pediatric neurosurgery, focusing on therapies for the treatment of pediatric brain tumors, Chiari malformations, and other congenital anomalies of the spine and brain, as well as children with complex craniofacial anomalies.

“I love the fact that neurosurgery is still such an open book,” Dr. Muraszko said. “There’s still so much we don’t know, so much we’re learning.” To this day, she remains excited about operating on “such important organs” as the brain and spinal cord.

As Dr. Muraszko stated in her Van Wagenen Lecture, you can’t be in two places at once, and there are only 24 hours in a day. However, it’s clear that she makes the most of every minute.

Now approaching her eighth year as the only female chair of an academic neurosurgical department (at the University of Michigan) in the U.S., Dr. Muraszko noted that more women — who make up 52 percent of medical school students — are considering careers in neurosurgery. “There was a time when to be a neurosurgeon was to dedicate your life solely to neurosurgery,” she said. “Now, we recognize that a balance is important. You want to have a family. You want to have a life in the community. You want to have an existence outside of neurosurgery.”

Dr. Muraszko encourages women in the specialty through her participation in Women in Neurosurgery (WINS), an organization whose mission is “to educate, inspire, and encourage women neurosurgeons to realize their professional and personal goals, and to serve neurosurgery in addressing the issues inherent to training and maintaining a diverse and balanced workforce.” A former WINS president, she now sits on the executive board.

She also dedicates her time to up-and-coming neurosurgeons through mentorship, which she calls “an obligation” and “part of the joys of being in an academic neurosurgical environment.” Furthermore, during her Van Wagenen Lecture, Dr. Muraszko referred to mentoring as “crucial,” imploring attendees to “be an ethical and social role model.”

She herself was inspired by David Gordon McLone, MD, PhD, FAANS, who “believed in the ability of people with disabilities to live normal lives — I’m proof positive of that,” she noted. Dr. Muraszko also is thankful for her personal mentors: Peter W. Carmel, MD, FAANS; Kalmon D. Post, MD, FAANS; and Edward H. Oldfield, MD, FAANS.

“The legacy you leave is not just the patients you operate on, but your residents, and the knowledge you create and impart, as well,” she explained.

When she’s not advising future neurosurgeons, Dr. Muraszko sets her sights on the world. As co-founder of the University of Michigan’s Project Shunt — which provides care to indigent children in Guatemala through ongoing medical missions by neurosurgeons, anesthesiologists, neurosurgical residents and nursing staff — she has helped to bring aid to more than 300 children since 1998.

“I think I get as much back as I give,” said Dr. Muraszko of what motivates her. “It’s one of the reasons you become a doctor.”

*Dr. Muraszko is the Julian T. Hoff Professor of Neurosurgery and director of the Pediatric Brain Tumor Clinic at the University of Michigan. The first female director on the American Board of Neurological Surgery, she also is a member of the AANS Nominating Committee and chairs the AANS Membership Committee. After graduating from Yale University and earning her MD degree from the Columbia College of Physicians and Surgeons, Dr. Muraszko performed her internship, neurosurgical training and pediatric neurosurgical training at Columbia Presbyterian Medical Center—the New York Neurological Institute.*





## Revolutionizing Research for the New Generation of Neurosurgeons

As a premier funder of neurosurgical studies, the Neurosurgery Research and Education Foundation (NREF) focuses on providing fellowship funding in basic neuroscience and neurosurgical programs in North America. The NREF is responsible for all aspects of the grants program, including review and approval of grant applications. It bestows grants based upon established program criteria. Established in 2009, the NREF Educational Grants Committee (EGC) is composed of neurosurgeons who do not receive financial or other support from the medical-device industry; these committee members review and approve grant applications in an independent, unbiased manner. Individuals serving on the EGC are volunteers and do not receive compensation from the NREF for their efforts. Corporate supporters of this program have no role in the selection of fellows or training institutions that receive funding.

### Post-Residency Clinical Fellowships

The NREF works with companies to support high-quality education and training in spine surgery, general neurosurgery, and a number of neurosurgical subspecialty areas in an independent and transparent manner. With funding for medical research and neurosurgical education needed now more than ever and government support diminishing, the funding given directly to hospitals and academic programs by corporate supporters continues to come under scrutiny. We proudly recognize corporate support for funding of the 2011-2012 NREF Post Residency Clinical Fellowship program:

- DePuy, Inc., a Johnson & Johnson company
- Codman & Shurtleff, Inc., a Johnson & Johnson company
- Medtronic, Inc.
- Zimmer Spine, Inc.
- Lanx, Inc.

### 2011-2012 Awardees

The 20 post-residency fellowship grants funded in the 2011-2012 funding cycle represent an increase of five grants over the 2010-2011 cycle. The NREF funded 13 spine fellowships, one stereotactic/functional clinical fellowship, one pediatric clinical fellowship, one neurosurgical/oncology clinical fellowship and four endovascular clinical fellowships. The Foundation is pleased to announce the following institutions received funding:

- Cedars-Sinai Medical Center
- Cleveland Clinic
- Johns Hopkins University
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# Revolutionizing Research for the New Generation of Neurosurgeons

The mission of the NREF — established in 1981 in response to the alarming decline in federal, state and private funding for medical research — is to provide a private, non-governmental source of funding for research training in the neurosciences.

Since 1981, close to 200 residents and young clinicians have been awarded research grants, and 50-plus institutions have received funding for clinical research. In addition, the NREF has raised more than \$8 million in total funding for the specialty. The majority of the residents and young clinicians/researchers who have received NREF grants continue their work in the same areas, contributing significantly to the field of neurosurgery in their professional careers.

## 2011-2012 Research Fellows and Young Clinician Investigators Awards (\$40,000 for One Year)

### NREF Research Fellow

Pierpaolo Peruzzi, MD — The Ohio State University  
Sponsor: E. Antonio Chiocca, MD, PhD, FAANS  
Project Title: *Multitargeting the Glioma Stem Cell Population by Means of Specific MicroRNAs*

### NREF/American Academy of Neurological Surgery (AANS) Research Fellow

Shawn Hervey-Jumper, MD — University of Michigan  
Sponsor: Karin Muraszko, MD, FAANS  
Project Title: *The Regulatory Role of MicroDNA in Malignant Gliomas and their Detection in Patient Serum*

### NREF/Biomet Microfixation Research Fellow

Chad Washington, MD — Washington University in St. Louis  
Sponsor: Gregory J. Zipfel, MD, FAANS  
Project Title: *The Effect of Sildenafil on Vasospasm and Cerebral Blood Flow after Subarachnoid Hemorrhage*

### NREF/Cerebrovascular Section Research Fellow

Gary Schwartzbauer, MD — The University of Maryland  
Sponsor: J. Marc Simard, MD, PhD, FAANS  
Project Title: *Contribution of the SUR1/TRPM4 Channel to Cerebrovascular Dysregulation During Cerebral Malaria*

### NREF/DePuy Spine Research Fellow

Craig Shannon, MD — New York Medical College  
Sponsor: Meena Jhanwar Unyal, PhD  
Project Title: *Treatment of Spinal Cord Injury Utilizing Stem Cell Therapy in Conjunction with Anti-Inflammatory Compounds*



### NREF/Section on Tumors Research Fellow

Arthur Chou, MD — University of California, Los Angeles  
Sponsor: Linda Liau, MD, PhD, FAANS  
Project Title: *Evaluation of a Novel Cancer Associated Metabolite, 2-Hydroxyglutarate, in IDH1 Mutant Gliomas*

### NREF/Whelan Neuro-oncology Research Fellow

Michael Oh, MD — University of California, San Francisco  
Sponsor: Andrew Parsa, MD, PhD, FAANS  
Project Title: *CD133+ Glioma Cell Proliferation is Regulated by Complement Activation*

### NREF/Section on Pediatric Neurological Surgery Young Clinician Investigator

Sheila Singh, MD — McMaster University  
Sponsor: Mick Bhatia, MD  
Project Title: *The Role of Bmi1 in Neural Stem Cell Regulation and Brain Tumor Development*

### NREF/Codman Young Clinician Investigator

Nader Sanai, MD — Barrow Neurological Institute  
Sponsor: Arturo Alvarez-Buylla, PhD  
Project Title: *Characterization of Glial Progenitor Cells in the Postnatal Human Brain*

# Helping Researchers Change the Game of Neurosurgical Investigation

## Medical Student Summer Research Fellowship

The AANS, through the NREF, is pleased to support the Medical Student Summer Research Fellows. The Fellowship Program, now in its fifth year, is designed to increase neurosurgical curriculum to first- and second-year medical students — hopefully encouraging them to elect neurosurgery when deciding on their residency training. The Fellowship is open to medical students in the U.S. or Canada who have completed one or two years of medical school and wish to spend a summer working in a neurosurgical laboratory, mentored by a neurosurgical investigator who is a member of the AANS and will serve as sponsor to the student. For 2012, the AANS has increased its award total to \$2,500 and will support 20 fellows. Applications for the 2013 cycle will be available in fall 2012. The 2012 Fellowship awardees are:

**Siri Sahib S. Khalsa** — The George Washington University  
**Abdullah Feroze** — Stanford University School of Medicine  
**Pete Pow-anpongkul** — The Ohio State University College of Medicine  
**Sattar Khoshkhou** — University of California, San Francisco  
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**Adam Pampori** — The University of Maryland  
**Shanna Fang** — Mayo Medical School  
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**Kendall McEachron** — University of Minnesota  
**Pouya Jamshidi** — University of California, San Diego

## 2011 Best Abstract Awardee at 2012 AANS Annual Scientific Meeting

**Raanan Alter, BA** — Boston University School of Medicine, *Radiation Response Modifiers for Glioblastoma and other CNS Tumors*

## William P. Van Wagenen Fellowship

The William P. Van Wagenen Fellowship was established by the estate of Dr. William P. Van Wagenen, who was one of the founders of the Harvey Cushing Society (now the AANS) and its first President. The Fellowship was designed to provide freedom in scientific development without the restrictive limitations usually imposed by many research grants and fellowships.

Awarded annually since 1968, the Van Wagenen Fellowship is offered for post-residency study in a foreign country for a period of 12 months. In 2008, the award stipend was increased from \$60,000 to the present \$120,000, with an additional \$15,000 awarded to the host university, lab or program to help defray research, education and investigation costs for the fellowship.

The recipient of the 2012 Van Wagenen Fellowship was Matthew Christopher Tate, MD, who completed his residency at the University of California, San Francisco in June 2012. Dr. Tate's fellowship will take him to Montpellier, France, where he will be hosted by the Department of Neurosurgery at the Hôpital Gui de Chauliac and be part of the Plasticity of Central Nervous System, Human Stem Cells and Glial Tumors team at the Institute of Neuroscience of Montpellier, INSERM, at the Hôpital Saint-Eloi. Under the mentorship of Dr. Hugues Duffau, Dr. Tate plans to utilize direct cortical stimulation in awake human patients to both establish a standardized functional atlas of human brain function and to investigate the functional consequence of brain plasticity following injury.

"The Van Wagenen Fellowship will provide Dr. Tate with a unique opportunity to work shoulder to shoulder with a world renowned neurosurgeon in France, both in the operating room and in the clinic," said William F. Chandler, MD, FAANS, FACS, Chairman of the Van Wagenen Committee and a former Van Wagenen Fellow. "As it did for me many years ago, the Van Wagenen Fellowship will provide Dr. Tate with insights into European neurosurgery and a wonderful boost to the beginning of his academic career."



# Putting a Hit on Brain Tumors

Twenty-eight teams of neurosurgeons from top medical institutions competed on June 9, 2012, in New York City's Central Park as part of the 9th Annual Neurosurgery Charity Softball Tournament. Endorsed by the AANS and hosted by Columbia University, the event benefited brain tumor research via the AANS' NREF and the Columbia Brain Tumor Research Fund.

For 2012, the competing Departments of Neurosurgery were Columbia University I, Columbia University II, Weill Cornell Medical College/Memorial Sloan-Kettering Cancer Center, New York University, Albert Einstein College of Medicine, Mount Sinai School of Medicine, Penn, Harvard University, Thomas Jefferson University, Dartmouth College, Penn State, Johns Hopkins University, The University of Alabama, Emory University, University of Florida, Duke University, University of Miami, Barrow Neurological Institute, University of Pittsburgh, The University of Utah, University of Toronto, Northwestern University, University of Colorado-Boulder, Vanderbilt University, Mayo Clinic, The George Washington University, University of South Florida and The Ohio State University.

The University of Miami's Department of Neurological Surgery took home the championship by beating Barrow Neurological Institute, 5-4, in the finals. Seth Hayes, MD, of the University of Miami was named the tournament's Most Valuable Player.

Thanks to our generous sponsors — Brainlab, Stryker, Medtronic, the New York Yankees, Baxter, Hitachi Aloka Medical America, Integra Life Sciences, Johnson & Johnson/Ethicon, Columbia Presbyterian Eastside Radiology, Subway — and the hundreds of neurosurgeons, support staff and families who participated in the event.



## A Neurosurgical Research Support Network Unlike Any Other

The NREF Cushing Circle is a cumulative, lifetime and planned/deferred giving society for neurosurgeons who support the NREF. The goals of the NREF Cushing Circle include increasing NREF giving (annual, major and planned gifts), creating an organizational identity and building camaraderie among philanthropists who consistently support the NREF. Contributors who have made significant financial commitments to the NREF and neurosurgical research are eligible to receive benefits, including special invitations to AANS Annual Scientific Meeting VIP events; advance notification on new products, services and educational offerings; and more. Criteria for individual membership include:

- Historical giving total of at least \$20,000
- Historical giving total of at least \$10,000, with a pledge of at least \$10,000 within the next five years (at a minimum rate of \$2,000 per year)
- Historical giving total of at least \$10,000, with a memorandum of understanding for a willed bequest of at least \$50,000

## Cushing Circle of Donors

The generosity of the Cushing Circle of Giving members has enabled the NREF to ensure the future of the neurosurgical specialty by assisting in its mission of providing a private, non-governmental source of funding for research training in the neurosciences. The members of the Cushing Circle of Giving for fiscal year 2012 were:

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### **Pinnacle Partners in Neurosurgery**

Support of the Pinnacle Partners in Neurosurgery program goes beyond traditional sponsorships; it is a corporate commitment to advance neurosurgery in important areas such as research, education and training, while also improving exposure and visibility to the neurosurgical community. The generous contributions of these partners in programs such as AANS Resident Education Courses have allowed hundreds of residents to learn from expert faculty on far-ranging topics, including endovascular neurosurgery, spinal deformity and stereotactic radiosurgery.

The AANS gratefully acknowledges the following companies for their support of the AANS Pinnacle Partners in Neurosurgery program in fiscal year 2012:

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### **Corporate/Leadership Council**

The AANS Corporate/Leadership Council's mission is to provide a forum for discussion and collaboration between the AANS and its corporate supporters on issues related to neurosurgical education, research, advocacy, and patient care. The AANS Corporate/Leadership Council convened its annual meeting in July 2011 in Chicago. Representatives from 16 of the 21 current Pinnacle Partners participated, joined by members of the AANS' Board of Directors and Development Committee, respectively. This meeting provided a vital forum for the sharing of ideas and discussion of topics of mutual interest, including new developments in the field of neurosurgery, improvements in diagnostics and treatments, changes in health-care delivery and consumer expectations, advocacy, health-care reform, compliance, transparency, and evidence-based medicine.

Action items generated from this meeting include changes to the existing Pinnacle Partner benefits, a request by corporate leaders for regular updates from the AANS Washington Committee, new ideas for educational programming that would include evidence-based medicine, interest in a procedural statistics survey and the co-authoring of articles for *AANS Neurosurgeon*.



# REDEFINING NEURORESEARCH

## Donor Support 2011-2012

The Executive Council of the Neurosurgery Research and Education Foundation (NREF) gratefully acknowledges the more than 787 individuals, groups, medical practices, corporations and members who generously supported the Foundation from July 1, 2011, through June 30, 2012.

\*Denotes NREF Cushing Circle of Giving Member

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 Israel David Zuckerman, MD, FAANS

### Tributes

#### The following contributions were made in honor of colleagues, family members and friends:

Etienne, Judith, Dan and Judith Elskens  
*in honor of Cassie Kenny*

Mr. and Mrs. Ronald W. Engelbreit  
*in honor of Thomas S. Engelbreit*

Robert Harbaugh, MD, FAANS, FACS; and  
 Kimberly Harbaugh, MD  
*in honor of Richard L. Saunders, MD, FAANS*

Jack Murphy Holland  
*in honor of St. Barnabas Medical Center – NICU*

John Joseph Knightly, MD, FAANS  
*in honor of Regis W. Haid Jr., MD, FAANS; and  
 Christopher I. Shaffrey, MD, FAANS*

Ezriel Edward Kornel, MD, FAANS  
*in honor of Hugo Rizzoli, MD, FAANS*

Catherine Anne Mazzola, MD, FAANS  
*in honor of P. David Adelson, MD*

Praveen V. Mummaneni, MD, FAANS; and  
 Valli Mummaneni, MD  
*in honor of Mitchel S. Berger, MD, FAANS, FACS*

Praveen V. Mummaneni, MD, FAANS  
*in honor of Mitchel S. Berger, MD, FAANS, FACS*

Dr. Jill Scolnick  
*in honor of Dan Miulli, DO*

Philip A. Yazbak, MD, FAANS, FACS  
*in honor of P. Jack Hoopes, DVM*

### Memorials

#### The following contributions were made in memory of colleagues, family members and friends:

Dr. and Mrs. Robert E. Breeze  
*in memory of Dick Koepke*

Terri L. Bruce  
*in memory of Ronald W. Engelbreit*

Albert J. Camma, MD, FAANS, FACS  
*in memory of Anthony F. Susen, MD*

Joseph S. Cheng, MD, MS, FAANS  
*in memory of Alan H. Fruin, MD, FAANS*

Willard Emch, MD, FAANS  
*in memory of Sharon Emch*

Dr. and Mrs. Jacques N. Farkas  
*in memory of Jazlyn Grace Smith*

Joel A. Feigenbaum, MD, FAANS  
*in memory of Edith Ross*

Susan M. Gass  
*in memory of H. Harvey Gass, MD*

D. Kojo Hamilton, MD; and Elizabeth Gillespie, MD  
*in memory of Dr. F.D.G. Hamilton*

Hudson City Savings Bank  
*in memory of Ilona Quest*

Ezriel Edward Kornel, MD, FAANS  
*in memory of Gary Kahn*

Myron B. Kratzer  
*in memory of Dr. Robert King*

Michael H. Lavyne, MD, FAANS  
*in memory of Robert G. Ojemann, MD*

Dr. and Mrs. Richard C. Mendel  
*in memory of Grace A. Bastian, MD*

Dr. Jeffrey and Mrs. Karen Ojemann  
*in memory of Robert Ojemann, MD*

Donald O. Quest, MD, FAANS; and Ilona Quest  
*in memory of Ilona Quest*

Joni L. Shulman, MPH  
*in memory of Steven J. Slowik Jr.*

Shelly Timmons, MD, PhD, FAANS; and  
 Russell Carter, MD  
*in memory of Christopher C. Getch, MD, FAANS*

Gregory E. Walker, MD, FAANS  
*in memory of Kirk Allen Walker*

### Corporate Associates

The Corporate Associates Program helps provide support for young researchers working on potential treatments and cures for neurosurgical diseases and conditions that affect millions of people. We would like to thank the following groups that helped support NREF grants in fiscal year 2012:

- American Academy of Neurological Surgery
- AANS/CNS Cerebrovascular Section
- AANS/CNS Pediatric Section
- AANS/CNS Spine & Peripheral Nerves Section
- AANS/CNS Section on Tumors
- Congress of Neurological Surgeons
- Integra LifeSciences
- Medtronic
- MicroVention, Inc.
- Monteris Medical
- Spine Wave, Inc.
- Stryker
- Synthes Spine
- Varian Medical Systems

# 2012 FINANCIAL SUMMARY

In FY12, the fiduciary responsibility of AANS and its leadership helped ensure the organization again recognized a profit. And while trying market conditions made for a turbulent accounting year, AANS closed FY12 with a profit of \$23,079 — marking the 10th time in the past 11 years that the organization concluded the fiscal year with a positive gain. The solid financial stewardship put forth by AANS leadership and management, with a vision that is focused on long-term growth and innovation, continues to benefit AANS members and all of organized neurosurgery.

This report reflects the combined financial statements of the American Association of Neurological Surgeons and the American Association of Neurosurgeons covering the period of July 1, 2011, through June 30, 2012.

## REVENUE

Despite the difficult market conditions and other factors that hampered revenue-center growth, the AANS was able to overcome those challenges. Several areas saw improvement in FY12, helping the organization again finish in the black.

- The Journal of Neurosurgery Publishing Group saw its net revenue surpass \$1.5 million in 2012. The \$1,580,487 generated by JNSPG represents a 52 percent increase over the \$1,038,255 in revenue produced in 2011. In fact, over the past four fiscal years, JNSPG has seen its net revenue grow by 388 percent (JNSPG's net revenue in 2009 was \$323,900).
- Education and practice management workshops saw net income grow approximately seven percent in FY12, increasing to \$346,128. Continued strong interest in the AANS Oral Boards and Resident Courses, combined with reduced expenses associated with workshop programs, were critical to this improvement.
- New processes and improved procedures helped *AANS Neurosurgeon* cut its expenses by nearly \$19,000 in FY12. Those improvements and other changes helped drive an eight-percent improvement in net revenue over the prior fiscal year.

The pie chart (page 32) indicates the various income sources. These sources were fairly steady compared to the previous fiscal year, with the most notable increases occurring with the Journal of Neurosurgery Publishing Group (4.4 percent) and the AANS Annual Scientific Meeting (4.3 percent).



## EXPENSES

Overall gross expenses did increase in FY12, but those costs were tied to program improvements and enhancements, such as expanded programming and live streaming of the AANS Annual Scientific Meeting. Overall, effective and efficient management provided by the AANS Finance Committee and AANS ensured that increased cost was paired with much increased member benefit, as well as the opportunity to build additional programming and platforms within existing infrastructure.

- The Education and Practice Management department was able to dramatically improve its bottom line in FY12, cutting expenses by \$194,800 — an 11.5 percent reduction from FY11 — primarily around the department's Resident Course programs.
- The Journal of Neurosurgery Publishing Group continued to produce an incredible array of content, both in print and via its much-improved website. And of equal importance was JNSPG's ability to lower its expenses in FY12 by nearly \$200,000, primarily in the area impacting the cost of goods sold.
- A concerted effort in the area of Contract Services to focus on core vehicles and programs helped AANS reduce expenses in this area by 22 percent. The \$118,200 savings will allow the organization to remain centered on delivering greater value to Sections and other organizations contracting with AANS in the future.

All year-end financial statements of the AANS are audited by outside auditors. Any material differences between a published financial statement and the auditors' report are communicated to AANS members in *AANS Neurosurgeon*. Copies of the most recent audit are available to members by writing to: AANS Accounting Department, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008-3852

# Statement of Financial Position 6/30/2012

## ASSETS 2011-2012

Cash and Investments.....	12,392,193
Other Current Assets .....	710,530
Property and Equipment, net.....	3,498,007
Other Assets .....	5,985,176
<b>TOTAL ASSETS.....</b>	<b>\$22,585,906</b>

## LIABILITIES AND EQUITY

### Liabilities

Accounts Payable .....	5,632,124
Deferred Revenues.....	1,959,524
<b>TOTAL LIABILITIES .....</b>	<b>\$7,591,649</b>

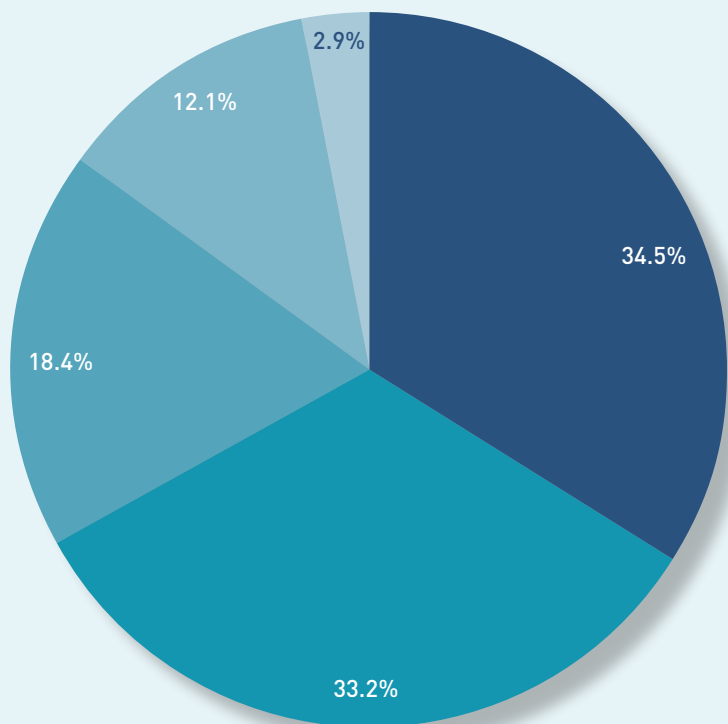
### Equity

Beginning Net Assets.....	14,971,178
Net Income .....	23,079
<b>TOTAL EQUITY .....</b>	<b>\$14,994,257</b>
<b>TOTAL LIABILITIES AND EQUITY .....</b>	<b>\$22,585,906</b>

## INCOME STATEMENT

### Revenue

Operating Revenue.....	15,305,205
Operating Expenses .....	15,282,125
<b>NET OPERATING INCOME (LOSS).....</b>	<b>\$23,079</b>
Non-Operating Activities .....	457,703
<b>NET INCOME (LOSS).....</b>	<b>\$480,782</b>



### FY2012 SOURCES OF REVENUE

- AANS Annual Scientific Meeting — 34.5%
- Journal of Neurosurgery Publishing Group — 33.2%
- Dues — 18.4%
- Professional Development — 12.1%
- Products and Services — 2.9%

\*Totals do not equal 100 percent due to rounding.



# AANS MISSION STATEMENT

The American Association of Neurological Surgeons (AANS) is the organization that speaks for all of neurosurgery. The AANS is dedicated to advancing the specialty of neurological surgery in order to promote the highest quality of patient care.

## AANS VISION STATEMENT

- The American Association of Neurological Surgeons will ensure that neurosurgeons are recognized as the preeminent providers of quality care to patients with surgical disorders that affect the nervous system.
- The American Association of Neurological Surgeons will work to expand the scope of neurosurgical care as new technologies and treatments of neurological disorders become available.
- The American Association of Neurological Surgeons will be the organization speaking for neurosurgery through its communications and interactions with the public, media, government, medical communities, and third party payers.
- The American Association of Neurological Surgeons will be its members' principal resource for professional interaction, practice information and education.
- The American Association of Neurological Surgeons will promote and support appropriate clinical and basic science to expand the scope of neurosurgical practice.

## 2011-2012 LEADERSHIP

### Officers

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Paul C. McCormick, MD, MPH, FAANS

#### President-Elect

Mitchel S. Berger, MD, FAANS, FACS

#### Vice-President

Clarence B. Watridge, MD, FAANS, FACS

#### Secretary

William T. Couldwell, MD, PhD, FAANS

#### Treasurer

Robert E. Harbaugh, MD, FAANS, FACS

#### Immediate Past President

James T. Rutka, MD, PhD, FAANS, FRCS

### Directors-at-Large

H. Hunt Batjer, MD, FAANS, FACS

Gary M. Bloomgarden, MD, FAANS, FACS

Timothy B. Mapstone, MD, FAANS

Gail L. Rosseau, MD, FAANS

Christopher I. Shaffrey, MD, FAANS

### Regional Directors

Thomas L. Francavilla, MD, FAANS

Ezriel Edward Kornel, MD, FAANS

J. Adair Prall, MD, FAANS

Monica C. Wehby, MD, FAANS

### Historian

Samuel H. Greenblatt, MD, FAANS, FACS

### Ex-Officio

Deborah L. Benzil, MD, FAANS, FACS

Alan R. Cohen, MD, FAANS, FACS

E. Sander Connolly Jr., MD, FAANS

Frederick F. Lang Jr., MD, FAANS

Mark C. Preul, MD

Ali R. Rezai, MD, FAANS

Edward R. Smith, MD, FAANS

Shelly D. Timmons, MD, PhD, FAANS

Christopher J. Winfree, MD, FAANS

Christopher E. Wolfla, MD, FAANS

### Liaisons

Anthony L. Asher, MD, FAANS, FACS

Christopher E. Wolfla, MD, FAANS

Blas Ezequiel Lopez Felix, MD, FAANS

Susan C. Pannullo, MD, FAANS

M. Christopher Wallace, MD, MSc, FAANS, FRCS, FACS

James T. Rutka, MD, PhD, FAANS, FRCS

### Executive Director

Thomas A. Marshall

### Deputy Executive Director

Kathleen T. Craig

### Chief Financial Officer

Peter B. Kuhn

### Associate Executive Director

Joni L. Shulman, MPH

### Departments

Accounting

Development

Education

Governance

Information Services

Journal of Neurosurgery

Marketing

Meeting Services

Member and Public Outreach

Member Services

Washington Office

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American  
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and the American Association of Neurosurgeons