

AN INTEGRAL VOICE — 75 YEARS

AANS 2007 ANNUAL REPORT

In Celebration — the AANS 75th Anniversary



The American Association of Neurological Surgeons (AANS) culminated the year-long celebration of its 75th anniversary — the Diamond Jubilee — with the 2007 AANS Annual Meeting. The organization's founders could not have imagined the breadth and depth of the activities now undertaken by the AANS.

AANS activities during the Diamond Jubilee year demonstrate the wide range of issues that the AANS addresses on behalf of its members and all of neurosurgery. In support of these activities,

hundreds of neurosurgeons volunteer their time and energy and the organization has an annual budget of approximately \$14 million as well as a staff of 45 at the Executive Office.

Education of its members remains one of the primary missions of the AANS. To that end, a great deal of thought and effort goes into the development of the scientific program for the AANS Annual Meeting. This year's meeting was a monumental success — attendance at the meeting was the highest ever with a thousand more registrants than any previous meeting.

Among the invited speakers were Tom Friedman, Pulitzer Prize-winning author and journalist, discussing globalization; Eric Kandel, MD, PhD, Nobel laureate speaking about memory; Lisa Randall, PhD, particle physicist, discussing the multidimensional Universe; Sally Ride, PhD, first American woman astronaut, encouraging young people and especially women to enter scientific fields; Michael Gazzaniga, PhD, neuroscientist on neuroethics, and Johannes Schramm, MD, neurosurgeon, commenting on international cooperation amongst neurosurgeons. Dr. Ride inaugurated the Louise Eisenhardt lecture, which was established to honor the contributions of the first editor of the *Journal of Neurosurgery* and thus far the only woman president of the AANS. A commemorative book recounting AANS history was made available to all members in celebration of this 75th anniversary.

In other educational efforts this year, the AANS partnered with the Society of Neurological Surgeons to develop and produce Internet-based educational modules for resident training and for use by practicing neurosurgeons in the American Board of Neurological Surgery's Maintenance of Certification process. The multitude of courses presented across the United States and case studies available on the AANS Web site complement the educational offerings.

To expand neurosurgical education to medical students and thereby increase their interest in neurosurgery, summer fellowships with a grant of \$2,500 per student were initiated. Ten such fellowships were funded, and this number has been increased to 15 for next year due to great demand and high quality of the proposals.

The practice of medicine includes participation in the judicial process. To guide members' participation, the AANS developed the Code of Ethics and Rules for Medical/Legal Expert Opinion Services. The requirements are, in part: qualifications as an expert, representation of full standard of care, review of all pertinent material, familiarity with current concepts, avoidance of bias, and testimony as an educator and not as an advocate.

To ensure members' adherence to the AANS Code of Ethics and to adjudicate disputes between members with regard to professional conduct, the Professional Conduct Program of the AANS, initiated in 1983, plays an important role. The activities of the committee have increased exponentially and now hearings are held three full days a year. Experienced senior neurosurgeons constitute the hearing panel, and due process is scrupulously followed as cases progress through the program, first with a decision as to whether a hearing is warranted, the hearing itself, and lastly the appellate process through the Board of Directors and the general membership at annual meetings if necessary.

The Washington Committee, a combined effort with the Congress of Neurological Surgeons, is an active and effective advocate through which neurosurgery addresses the many areas where the federal government impacts neurosurgery. Physician payment, "pay-for-performance" initiatives, patient access to emergency care, medical liability reform, and NIH funding are several examples.

Through the Washington Committee's Quality Improvement Workgroup, pilot outcomes projects are initiated and guidelines review and de-novo development are undertaken. Participation in several registries, particularly with regard to endovascular management, has begun, and the development and implementation of a case database is in process.

Supporting legislation that furthers the goals of neurosurgery is the goal of the political action committee for neurosurgery, NeurosurgeryPAC. Funds from the PAC are used to educate legislators about neurosurgery's perspective and to help fund the campaigns of those whose positions are favorable to neurosurgery. All neurosurgeons are encouraged to donate to NeurosurgeryPAC.

The Neurosurgery Research and Education Foundation (NREF), a major initiative of the AANS, continues to increase funding opportunities for researchers in neurosurgery. More than a half-million dollars was awarded last year to nine Research Fellows and four Young Clinicians. This represents a substantial increase from the previous year, in which a total of nine grants were awarded, an increase that is in part thanks to the AANS members whose generous donations support the NREF.

This Diamond Jubilee year has been a time to celebrate the venerable ideals of the founders of the AANS, ideals which have remained unchanged since the organization's inception. It has also been a time of evaluation as the specialty of neurosurgery faces the future with dedication and a creative spirit. The unity, vigor, purposefulness, productivity, and creativity of the AANS will continue to grow as the future unfolds.

Donald O. Quest, MD 2006-2007 AANS President



History Integral to Current AANS Growth and Success



The 75th Anniversary of the AANS founding makes this Annual Report presentation to the Membership even more satisfying than usual for the 2006-2007 AANS President Donald O. Quest, MD, and me.

Moreover, that this year's accomplishments were so unexpectedly but overwhelmingly successful gives this report an added dimension of accomplishment.

It would have been hard to predict, that one year after setting the all-time attendance record at the 2006 AANS Annual Meeting in San Francisco, the 75th AANS Annual Meeting would soar over that benchmark to reach a 75-year high in Washington D.C., a city that has not hosted an AANS Annual Meeting since 1989.

And the odds were long that the aggressive advancement over the past six years of the association's new technologies would so rapidly propel its array of services and products available to members — from online education modules and electronic CME-earning activities to member-only secure electronic communication avenues and expedited methods for meeting registration and abstract submissions — to unprecedented new heights.

With a consistent focus on the dynamics of the future, an innovative and results-oriented physician and professional management leadership, a financial philosophy grounded in streamlined efficiency and multi-sourced revenue streams, and commitment to building on accomplishments, the AANS achieved unprecedented success on a broad front in this past year.

As you will read in the pages that follow, the AANS physician members who drove this year's achievements for both the association and the specialty through their commitment of time, expense, and personal involvement, spanned the range from Board of Directors to committee members and individual members. You will read the stories and background of members who, both working in teams and through their own initiative, made vital contributions to critical elements of the association that ultimately made the whole of AANS' success in 2007 far greater than the sum of its parts.

In the end, it was fitting and proper that what was easily one of the organization's most memorable years in its history culminated with the most attended meeting in its history.

The AANS Annual Meeting has always been a symbol for the successful partnership, cooperation and innovation of the diverse AANS community — member, staff, corporate partner, and general public. And the extraordinarily high member ratings awarded to the 2007 AANS Annual Meeting in Washington, D.C., was testament to all those who pooled their talents in planning, conducting, and participating in this signature event.

But in a larger sense, this year's meeting was an affirmation by membership that the organization is as highly valued by its members today as it was at its founding 75 years ago.

On behalf of the AANS leadership and staff, it gives me great pleasure to present to you the 2007 Annual Report of your association's progress.

Thomas A. Marshall AANS Executive Director

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
- 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.

HONORING ITS FOUNDING

In fiscal year 2007, the AANS celebrated 75 years since the founding of the Harvey Cushing Society. During the year there were special areas dedicated to history on the AANS.org Web site and articles in both the AANS Bulletin and Journal of Neurosurgery. A display at the entrance to the exhibit hall at the 75th AANS Annual Meeting provided a timeline of activities, personalities, and events that shaped the organization.

Staff collaborated with members on the publication of the History of the American Association of Neurological Surgeons: Seventy-Fifth Anniversary. This was given to all medical attendees at the annual meeting and a complimentary copy was also made available to those members who were unable to attend. The limited edition book chronicles major milestones dating back to the founding of the Harvey Cushing Society in 1932. The compilation features historical photographs, the first publication of the Journal of Neurosurgery, the founding of the Neurosurgery Research and Education Foundation and the forming of political action committees. Every presidential year is referenced with highlights including meeting location, major address titles, keynote speakers, and membership growth. This book provides an excellent overview on the role of the AANS in the history of organized neurosurgery.

Educating Neurosurgeons — 75 Years of Facilitating Patient Care

GREGORY J. PRZYBYLSKI, MD

AANS Coding Course Director



Gregory J. Przybylski, MD, has been called the authority on neurosurgical coding, and indeed at the AANS, this title is more than well deserved. Graciously stepping in as AANS Coding Course Director in October 2005 when Samuel J.

Hassenbusch, MD, PhD, stepped down, Dr. Przybylski has provided his unique vision and expertise to the program. He has helped neurosurgeons and their office staff understand the intricacies of CPT codes, through training stellar faculty, teaching numerous coding courses himself, and generously volunteering his time to field coding questions.

His level of knowledge in this arena is unparalleled, which is why he has provided his expertise not only at the AANS, but at numerous other national medical specialty societies.

As author of the AANS *Bulletin* Coding Corner and reviewer of the *AANS Guide to Coding*, Dr. Przybylski has offered insight to members on coding decisions within the Centers for Medicare & Medicaid Services and how these changes affect reimbursement.

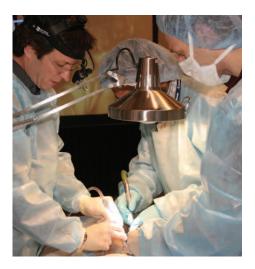
"Coding is viewed by many physicians as a necessary but intrinsically complicated aspect of practicing medicine. The goal of AANS coding courses and initiatives is to break this down and make it as painless a process as possible for neurosurgical practices," stated Dr. Przybylski. "That means keeping members up-to-date on any coding changes and additions, which ultimately results in a win-win situation for both neurosurgeons and patients when it comes to reimbursement. I enjoy the complexities of coding, but sharing this insight with my neurosurgery colleagues is even more rewarding," concluded Dr. Przybylski.

Dr. Przybylski is chair of the AANS/CNS Coding and Reimbursement Committee, a member of the CMS Practicing Physicians Advisory Council, and the AMA Relative Value Update Committee. He is professor and director of Neurosurgery at the New Jersey Neuroscience Institute at JFK Medical Center in Edison, N.J. Educating members has always been part of the rich tradition of the AANS. The continuing medical education (CME) of neurosurgeons is as important today as it was to the founders of the Harvey Cushing Society.

The AANS continues to support the highest level of professional excellence through the American Board of Neurological Surgery's (ABNS) Maintenance of Certification (MOC) program. While consistently providing exceptional educational programs as part of the CME aspects of recertification (many of which are free to AANS members), the AANS also developed the ABNS MOC online application tool and data collection activities. In addition, the first MOC recertification preparation course, Weekend Update: Interactive Review of Clinical Neurosurgery by Case Management, took place in Atlanta, February 24-25, 2007, and was directed by Julius M. Goodman, MD.

Dr. Goodman was honored for his visionary leadership in November when the ever-popular AANS Neurosurgery Review by Case Management: Oral Board Review Course was changed to the Goodman Oral Board Preparation: Neurosurgery Review by Case Management. Dr. Goodman launched this course in 1997 and has been the course director for a decade.

In fiscal year 2007, the AANS offered a total of 15 courses, which covered practice management, oral board preparation, and resident education. Enhancing the regular curriculum of on-site courses, the AANS also continued to offer alternate, innovative vehicles to obtain CME. Recognizing the convenience of earning CME in



this manner, 136 members took the online minimally invasive spinal surgery course by Richard G. Fessler, MD, PhD, and 763 people received CME credit through *Neurosurgical Focus*. In addition, 20 programs were jointly sponsored and 23 were cosponsored.

Recognizing the Role of Future Leaders in Neurosurgery — Resident Education

Working collaboratively with the Society of Neurological Surgeons, the AANS launched the first in a series of non-CME online sessions, as convenient, easily accessible courses directly related to the core cognitive curriculum of neurosurgery. Developed principally for resident education, these courses are also a valuable learning tool for all physicians looking to review



The 2007 AANS Annual Meeting — Celebrating AANS' Diamond Jubilee

areas they might not see regularly in their practice. These sessions are available only to members through the password-protected MyAANS.org Web site. The following five modules were launched as the pilot project:

- Clinical Evaluation of the Unconscious Patient, Charles Joseph Hodge Jr., MD
- Technique for Ventriculostomy, Vincent C. Traynelis, MD
- Diagnostic Imaging Evaluation of Spinal Instability, Philip R. Weinstein, MD
- Functional Spinal Cord Anatomy and Spinal Cord Injury Syndromes, Kim J. Burchiel, MD, FACS
- Communicating with Patients, Javad Hekmatpanah, MD

Recognizing the importance of providing outstanding, no-cost education to residents, Jon H. Robertson, MD, chair of the Development Committee, provided visionary leadership and spearheaded a series of resident courses. The goal of these courses is to expose residents to advanced educational training opportunities that are not currently available to them within their residency programs. Launched successfully in 2006, four new courses were offered in fiscal year 2007. Three of these courses were held at the state-ofthe-art Medical Education and Research Institute (MERI) in Memphis, Tenn. The four courses, supported fully by corporate partners included:

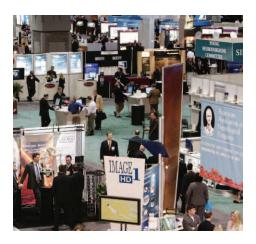
- Minimally Invasive Spinal Techniques: An Advanced Level Course for Senior Residents, August 11-12, 2006; Course Directors: Kevin T. Foley, MD, Charles L. Branch Jr., MD; Sponsors: Anspach, Medtronic Neurologic Technologies, Medtronic Sofamor Danek, and Carl Zeiss Meditec.
- Everything You Need to Know, but Didn't Learn in Residency: A Primer on How to Choose a Practice and Avoiding Pitfalls, September 30, 2006; Course Directors: Frederick A. Boop, MD, FACS, Gary M. Bloomgarden, MD; Sponsor: Medtronic Sofamor Danek.
- · Pediatric Neurosurgery Review, February 9-10, 2007; Course Director: Dr. Frederick A. Boop; Sponsor: Medtronic.
- Endovascular Techniques for Residents, April 27-28, 2007; Course Director: Robert H. Rosenwasser, MD, FACS; Sponsors: ev3, Boston Scientific, Cordis Neurovascular, Inc., a Johnson & Johnson company, and Micrus Endovascular Corporation.

AANS annual meetings are the largest gatherings of neurosurgeons in the nation, focusing on the latest research and technological advances in the field. Medical attendees choose from a wide array of top-notch education and science presented by renowned neurosurgeons from around the world. In 2007, up to 20.25 Category 1 CME credits could be earned for general sessions, with an additional 30 credits for attending some of the optional programs such as breakfast seminars and practical clinics.

The 2007 AANS Annual Meeting commenced on Saturday, April 14 with practical clinics and culminated on Thursday, April 19. Led by Annual Meeting Chair Mitchel S. Berger, MD, FACS, and Scientific Program Chair Timothy B. Mapstone, MD, FACS, this year's meeting exceeded expectations with a record-high 3,497 medical attendees, and a total of 8,379 participants, including exhibitors and guests.

After a weekend of hands-on clinics, members enjoyed the spectacular Sunday evening opening reception at the Smithsonian National Air and Space Museum. Welcomed by cool jazz riffs, attendees were entertained by the talented Neurosurgical Jazz Quintet, featuring AANS President Donald O. Quest, MD, James E. Rose, MD, Theodore H. Schwartz, MD, R. Michael Scott, MD, and Philip R. Weinstein, MD. Amid the largest and most impressive collection of historic air and spacecraft in the world, attendees dined on a smorgasbord of culinary delights.

AANS annual meetings are the largest gatherings of neurosurgeons in the nation, focusing on the latest research and technological advances in the field.



While the Scientific Program concentrates on clinical neurosurgical research and breakthroughs that can ultimately improve the quality of patient care, socioeconomic issues can also impact the delivery of patient care. Significantly expanded Monday through Wednesday socioeconomic sessions were well attended and highlighted:

- Medicare Reimbursement and Pay-for-Performance
- Emergency Neurosurgical Care and **EMTALA Rules**
- Physician Ownership of Diagnostic Imaging Equipment and Specialty Hospitals

The 2007 AANS Annual Meeting at a Glance

- 39 practical clinics
- 21 general scientific sessions
- 146 oral abstract presentations
- Nearly 500 poster presentations
- Exhibit booths representing 241 companies
- 79 educational breakfast seminars
- 2007 Cushing Orator, three-time Pulitzer Prize winning author Tom Friedman

Honoring Leaders that Make a Difference

- Cushing Medalist Robert G. Grossman, MD
- Humanitarian Award Benjamin C. Warf, MD
- Distinguished Service Award Mary Louise Sanderson
- · Honorary Member Albert J. Aguayo, MD
- Honorary Member Darell D. Bigner, MD, PhD
- Honorary Member James Ferrendelli, MD

Integrating a Wealth of Knowledge — **Special Lectures**

- The Rhoton Family Lecturer Lisa Randall, PhD
- The Ronald L. Bittner Lecturer Joseph Piepmeier, MD
- The Hunt-Wilson Lecturer Eric Kandel, MD, PhD
- The Richard C. Schneider Lecturer L. N. Hopkins III, MD
- The Theodore Kurze Lecturer Michael Gazzaniga, PhD
- The Van Wagenen Lecturer Johannes Schramm, MD

Member Benefits — 75 Years of Serving Neurosurgery

Louise Eisenhardt Lecture

Louise Eisenhardt was the seventh president of the Harvey Cushing Society from 1938 to 1939. In addition to being the only female president of the AANS, Dr. Eisenhardt distinguished herself as the first editor of the *Journal of Neurosurgery*, serving in that capacity for 21 years.

A decision was made to honor Dr. Eisenhardt through an annual lectureship and speaker selection that embodies a philosophy supportive of women in education and the sciences at a national level. The debut Louise Eisenhardt Lecture was given by former NASA astronaut Sally Ride, PhD, who blazed a path as the first American woman in space.

Neurosurgical Top Gun Competition

For two consecutive years, the Young Neurosurgeons Committee has offered a competition for residents and fellows. The 2007 Neurosurgical Top Gun prize was awarded to Carla Sofia Reizinho, MD, a first year neurosurgical resident at Hospital Egas Moniz in Lisbon, Portugal.

Reaching more neurosurgeons and extending access to education that ultimately improves patient care is a vital component of the AANS mission. Closely related is the goal of helping members achieve Board certification and Maintenance of Certification requirements. In addition to the many "live" meetings AANS hosts each year, members can take advantage of educational opportunities without leaving home. Home study/self education options include publications, DVDs, online case studies, online courses, and online journals.

The AANS self-education "library" offers members the chance to earn AMA PRA Category 1 Credits™ for a maximum of 98.50 CME credits through books and DVDs; and 10.25 CME credits through online education. Members can also earn additional credits through partner programs (such as Contemporary Neurosurgery or Practical Reviews in Neurosurgery). These opportunities make it easier for members to keep up with advancements in neurosurgery as well as earn credits essential to licensure, certification and membership.

Medical Student Outreach — Encouraging Careers in Neurosurgery

The Long Range Planning Committee tasked the Young Neurosurgeons Committee (YNC) with identifying ways to provide information to individuals interested in a career in neurosurgery. As a result, a new area of the Web site was developed specifically aimed at medical students. In addition to linking with the online brochure developed by Women in Neurosurgery entitled, So, You Want to Be a Neurosurgeon?, the Web site includes a Q&A on pertinent issues; additional neurosurgical Web resources; neurosurgical research scholarships available to medical students; and a procedure to register with the AANS database to enable access to the Online Case Studies in MyAANS.org. The YNC continues to champion these efforts on an ongoing basis.

In fiscal year 2007, the Neurosurgery Research and Education Foundation administered the first Medical Student Summer Research Fellowship Program. Ten \$2,500 summer fellowships were awarded to first and second year medical students.

Supporting Innovative Neurosurgical Research Key to Moving the Field Forward

William P. Van Wagenen Fellowship 40th Anniversary

The William P. Van Wagenen Fellowship was established by the estate of William P. Van Wagenen, MD, who was one of the field's founders, and the first president of the Harvey Cushing Society. The fellowship provides private, nongovernmental funding for postneurosurgical residents from a North American training site, for overseas travel for medical enrichment, prior to beginning an academic career in neurological surgery.



JOSEPH A. HLAVIN, PA-C

Scientific Program Subcommittee Liaison



Joseph A. Hlavin, PA-C, has been a liaison to the Scientific Program Subcommittee since April 2005. A longstanding member of the AANS, he has been instrumental in expanding the AANS outreach to physician extenders, a goal that was brought to the forefront by leadership several years ago. For the past five years, Mr. Hlavin has been a moderator at annual meeting coding-related breakfast seminars and served as a panelist this year for *Current Treatments for Lumbar Stenosis*.

After the success of last year's physician extender course on low back pain, two new physician extender courses geared toward registered nurses, nurse practitioners, and physician assistants were offered in 2007. Endovascular Management of Ischemic and Hemorrhagic Stroke and Cervical Spine Trauma and Treatment Considerations were well attended and scored high marks by participants.

Nurses who attended the 2007 AANS Annual Meeting were able to obtain nursing contact hours for 11 activities. Physician assistants received a certificate of attendance upon completion of the annual meeting for submission to the American Academy of Physician Assistants for acceptance towards the Physician Assistant Category I (pre-approved) CME requirement.

"The solidarity that neurosurgeons and physician extenders embody as they work together as a team in the hospital setting ultimately translates into improved patient care. And the expansion of annual scientific meeting programming underscores the AANS' commitment to the collaborative care of the neurosurgical patient. It is rewarding to be part of the initial brainstorming on physician extender outreach efforts and see this brought to fruition at annual meetings," concluded Mr. Hlavin.

Mr. Hlavin is president of the Association of Neurosurgical Physician Assistants. He is a physician assistant-certified at the Texas Brain and Spine Institute, Texas A&M University in Bryan, Texas.

International Outreach — Broadening AANS Horizons

The 2007 Van Wagenen recipient, James C. Miller, MD, will travel to Germany to continue research in neuro-oncology with Professor Michael Weller at the University of Tuebingen.

On April 16, 2007, Van Wagenen fellows from as far back as 1969 gathered to celebrate the 40th anniversary of this prestigious fellowship award. The event brought together 35 past Van Wagenen fellows and guests. The dinner and celebration was held at the Cosmos Club in Washington, D.C., a private social club, established by those distinguished in science, literature and the arts.

American College of Surgeons (ACS)/AANS Health Policy Scholarship

This annual scholarship, cosponsored by the ACS and the AANS, subsidizes attendance and participation in the Leadership Program in Health Policy and Management at Brandeis University. The 2007 recipient of the scholarship was Gail L. Rosseau, MD.

International expansion has been an integral component of the AANS Strategic Plan for several years, with specific areas identified for realizing this goal. Two of these areas are international fellowships and expanded activities at annual meetings. And looking forward to 2009, the AANS will be hosting the XIV World Congress of Neurological Surgery meeting of the World Federation of Neurosurgical Societies (WFNS) in Boston.

The AANS International Visiting Surgeons Fellowship Program and the AANS received more than double the number of applications than submitted in its inaugural year, 2006. Applications were received from neurosurgeons in 16 developing countries. The program is geared towards neurosurgeons or neurosurgeons in training from countries with low income or lower middle income economies, as determined by the World Bank. The goal is to provide these individuals with a meaningful educational experience at a North American facility. Recipients are selected based on the quality and specificity of their educational plan, and on the

MIRSAD HODZIC, MD, PHD

AANS International Visiting Surgeons Fellowship Recipient



Mirsad Hodzic, MD, PhD, of Bosnia and Herzegovina was one of two recipients of the AANS International Visiting Surgeons Fellowship in its inaugural year. Dr. Hodzic's fellowship was in pediatric neurosurgery at the State University of New York, Buffalo. Dr. Hodzic divided his time between the Women & Children's Hospital of Buffalo, Buffalo General Hospital, and Millard Fillmore Hospital, from March to May 2007.

"This was a hands-on experience, giving me the opportunity to make daily rounds and scrub in and assist on cases. I learned a great deal about modern neurosurgical procedures, especially about aspects of pediatric neurosurgery that are not yet well developed at my department," said Dr. Hodzic.

"I am very grateful to my mentor Veetai Li, MD, and his partner Curtis Rozzelle, MD, and to the other doctors I worked with — Robert Plunkett, MD, James Budny, MD, FACS, Edward Simmons, MD, and Richard Stockton, PhD."

"Dr. Stockton taught Zlatko Ercegovic, MD, my colleague from Tuzla and I, to use an EEG machine during endarterectomy. An EEG machine was generously donated to the Tuzla Department of Neurosurgery by Dr. Plunkett and his partners, with half of the cost paid for by a philanthropic foundation."

"I am very grateful for the opportunity provided through the AANS International Visiting Surgeons Fellowship program and to all of the doctors for their cooperation and mentorship." concluded Dr. Hodzic.

Dr. Hodzic is a neurosurgeon, Department of Neurosurgery, University Clinical Center in Tuzla, Bosnia and Herzegovina.

LAWRENCE S. CHIN, MD, FACS

Young Neurosurgeons Committee (YNC) Chair

Through his passion for the profession and compassion for young and aspiring neurosurgeons, Lawrence S. Chin, MD, FACS, truly made a difference during his term as chair of the YNC. His visionary leadership led to expanded YNC involvement throughout the AANS, as well as to growth of medical student outreach initiatives. He also provided his unique talents and abilities to the 2007 AANS Annual Meeting



breakfast seminar: Becoming a Neurosurgeon: A Practical Course for Medical Students.

During his term, Dr. Chin realized the goal of YNC members having a presence as liaisons on all AANS committees and AANS/CNS Sections, as well as securing liaison roles at the American College of Surgeons and American Medical Association.

"I feel very strongly that established neurosurgeons need to provide encouragement to medical students and neurosurgical residents. We were all at this early point in our careers and this is a vital role that we can play to help ensure the future viability of this field. There are several strides that the YNC helped the AANS achieve in this regard. Providing insight into neurosurgery through the AANS and other Web sites, and offering specialized courses at annual meetings demonstrate the AANS' commitment to these efforts," said Dr. Chin.

"It has been rewarding to not only see medical student and resident outreach initiatives grow, but witness the YNC become a vital part of the AANS — young neurosurgeons' developing lives and careers have been recognized as an integral part of the AANS Strategic Plan," concluded Dr. Chin.

Dr. Chin was chair of the YNC from April 2005-April 2007. He is professor and chair of Neurosurgery at Boston University School of Medicine in Boston, Mass.

Advocacy Efforts Fundamental to Furthering the Cause

expectation that they will return to their home country to practice and/or teach neurosurgery.

The 2007 International Visiting Surgeons Fellowship recipients were Luis Alonso Fernandez, MD, Havana, Cuba, and Naveen Mehrotra, MD, Hyderabad, India. Dr. Alonso's fellowship will be at the Children's Hospital of East Ontario in Ottawa, Ontario, Canada. Dr. Mehrotra's fellowship will be at Wayne State University in Detroit, Mich.

The 2007 International Abstract Award winner was Claudius F. Thomé. MD. of Germany, for his abstract A Randomized Comparison of Clinical and Radiological Two-year Outcome of Lumbar Microdiscectomy Versus Sequestrectomy. The International Travel Scholarship recipient was Meng-liang Zhou, MD, of China, for his abstract, Simvastatin Attenuates Cerebral Vasospasm via *Inhibition of TLRs/NF-and Number 954: B Pathway* in a Rabbit Subarachnoid Hemorrhage Model.

International expansion has been an integral component of the AANS Strategic Plan for several years.



This year's International Reception was held at the spectacular, recently renovated National Portrait Gallery in Washington, D.C. The reception was well attended and featured remarks from Jacques Brotchi, MD, PhD, president of the WFNS, AANS President Donald O. Quest, MD, and President-Elect Jon H. Robertson, MD. Moderating the event was Russell J. Andrews, MD, chair of the International Outreach Committee, who presented Dr. Zhou with his abstract award and introduced Mirsad Hodzic, MD, PhD, one of the two 2006 International Visiting Surgeons Fellowship recipients.

The AANS/CNS Washington Committee advocates on behalf of neurosurgery on key issues affecting the practice, including Medicare reimbursement issues, pay-for-performance, and emergency neurosurgical care/EMTALA rules.

Moving into the final days of the 109th Congress, the key issue facing all physicians was the scheduled 5 percent cut in Medicare reimbursement. Although a long-term permanent solution for fixing the flawed sustainable growth rate formula (SGR) — on which physicians' Medicare reimbursement is in part based — remained elusive, the Tax Relief and Health Care Act of 2006 (TRHCA) passed before Congress adjourned for the year, preventing the 5 percent cut. The bill also included a 1.5 percent bonus payment for those physicians reporting quality measures in July through December 2007. Neurosurgery did not support this legislation, however, due to a number of new Medicare policies within the legislation that had the potential to negatively impact neurosurgeons.

Picking up where it left off at the end of 2006, the Washington Committee, along with others in organized medicine, implemented an aggressive advocacy effort aimed at educating the 110th Congress about the problems with the Medicare physician payment system, as well as serious and ongoing concerns about the new quality reporting program and pay-for-performance components of the TRHCA. Part of this strategy included an immediate effort to repeal (or make significant changes to) the legislation, particularly the provisions related to the quality program. The focus of significant attention was on averting the pending 10 percent payment cut in 2008 by repealing the current SGR formula and replacing it with a more sustainable reimbursement system. This is an ongoing issue and not yet resolved.

In May, the Washington Committee, along with other members of the Alliance for Specialty Medicine, supported legislation to change Medicare physician quality reporting. The Voluntary Medicare Quality Reporting Act of 2007, S. 1519, would make much needed improvements to Medicare's physician quality reporting program, which was enacted as part of the TRHCA. The primary concern was that under this law, the Centers for Medicare and Medicaid Services would have broad authority to structure the quality program as it sees fit, potentially turning into mandatory pay-for-performance.

Although passing federal medical liability reform legislation remains a challenge, the Washington Committee continues to press Congress to pass reform. Through its affiliation with the Health Coalition on Liability and Access, the committee worked with key Senators to get S. 243, the Medical Care Access Protection (MCAP) Act reintroduced at the beginning of the 110th Congress. This legislation is modeled after the Texas reform law and includes a \$250,000 cap on non-economic damages against physicians. In addition, Doctors for Medical Liability Reform (DMLR), which was founded by organized neurosurgery, continues to advance the issue of medical liability reform in the public debate through press releases, radio and newspaper interviews, and op-eds. DMLR continues to expand its grassroots network of reform advocates, which now includes over a halfmillion individuals.

The Washington Committee, along with others in organized medicine, implemented an aggressive advocacy effort aimed at educating the 110th Congress about the problems with the Medicare physician payment system, as well as serious and ongoing concerns about the new quality reporting program and pay-for-performance components of the TRHCA.

The committee also played an integral role in Congress' passage of the Trauma Care Systems Planning & Development Act. The bill reestablished the Health Resources and Services Administration's Trauma-Emergency Medical Services program and authorized funding through fiscal year 2012. The bill created a new competitive grant program for states that have already begun the process of establishing trauma systems and protocols using national standards.

SPORT Study

In November, the Journal of the American Medical Association published the results of SPORT phase one, a multi-million dollar, federally funded. multi-center, prospective, randomized controlled trial designed to investigate the efficacy of surgery for sciatica due to lumbar disc herniation.

The Written Word — The Integral Voice of Neurosurgery

In response to the JAMA articles and media coverage, the AANS and CNS issued a joint press release and a letter to the editor was sent to The New York Times in response to their November 22 article on SPORT. In addition, the AANS developed a general lumbar spine surgery document which was posted exclusively for members on MyAANS.org.

In May, when the New England Journal of Medicine published results of the SPORT phase two study on lumbar degenerative spondylolisthesis, once again the AANS/CNS weighed in with a joint press release and a letter to the editor which was sent to American Medical News in response to their June 25 article, which subsequently was published in the July 23/30 issue of AM News.

Annual Meeting Public Relations

Every year, the AANS highlights neurosurgical topics chosen by a peer-review process from all accepted oral abstracts for release to the media. This year's scientific releases reflected the incredible depth and breadth of the practice of neurosurgery. Partial neurological restoration after spinal cord injury, novel gene therapy for Parkinson's disease (PD), stereotactic radiosurgery for metastatic spinal tumors, deep brain stimulation for depression, bilateral sympathectomy for hyperhidrosis, and clip versus coil in treating cerebral aneurysm were among the chosen topics.

The 12 scientific releases generated considerable media attention, with print and broadcast media reaching an estimated worldwide audience of 890 million and counting. The Associated Press (AP) interview by Philip A. Starr, MD, PhD, on novel gene therapy for PD appeared in major daily newspapers and online publications and generated 343 million in circulation. Other major print media included The New York Times, USA Today, Atlanta Journal-Constitution, The Washington Post, Los Angeles Times, San Francisco Chronicle, and U.S. News and World Report. Notable online publications covering the meeting included MSN, AOL, Yahoo!News, Reuters, HealthDay, Discovery Channel, iVillage, and Forbes.

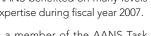
2007 AANS Annual Meeting **Highlighted Abstracts**

- Study Analyzes Effects of Aspirin and Alcohol Consumption on Intracranial Hemorrhage in Patients with Traumatic Brain Injury
- In-Depth Research Provides Insight into Trends, Efficacy and Outcomes of Cerebral Aneurysm Treatment and the Ongoing Debate: Clip versus Coil
- · Research Utilizing a Novel Protein May Hold Promise for Thousands of People Living with Spinal Cord Injury by Partially Restoring Neurological Function
- Study Analyzes Decompressive Craniectomy Outcomes in Pediatric Patients with Acute Head Injury over a 10-Year Period
- Awake Brain Surgery with Cortical Mapping Shows Potential for Maximizing Tumor Removal and Minimizing Neurological Deficits
- Deep Brain Stimulation Shows Promise in Treatment of Memory Problems Associated with Severe Psychiatric Disorders
- Stereotactic Radiosurgery a Viable Treatment Option for Select Patients with Spinal Cord Compression caused by Metastatic Cancer
- Innovative Treatment Option Holds Promise for Millions of People Worldwide Suffering from Hyperhidrosis (Excessive Sweating)
- Intrathecal Baclofen Therapy Can Provide Improved Quality of Life for Amyotrophic Lateral Sclerosis Patients with Spasticity-Related Pain
- · Research Shows that a Natural Mechanism of the Brain can Provide Pain Relief that Replicates Stress-Induced Analgesia
- Novel Gene Therapy Treatment for Parkinson's Disease Shows Promise in Phase 1 Trial with 12 Patients
- Linear Accelerator Radiosurgery Offers an Effective, Noninvasive Treatment Option for Trigeminal Neuralgia-Related Pain

SHELLY D. TIMMONS, MD, PHD, FACS

AANS Task Force on Neurosurgical Care and Physician Workforce

Dealing with neurosurgical trauma cases on a daily basis has given Shelly D. Timmons, MD, PhD, FACS, secretary-treasurer of the AANS/CNS Section on Neurotrauma and Critical Care, unique insight into challenges facing emergency medicine. The AANS benefited on many levels from her keen expertise during fiscal year 2007.



Dr. Timmons is a member of the AANS Task

Force on Neurosurgical Care and Physician Workforce and the American College of Surgeons (ACS) Committee on Trauma. As such, she has weighed in on issues surrounding neurosurgical emergency care in multiple arenas. This has included crafting several documents in response to the ACS stance on development of an acute care surgical specialty.

An editorial in the JACS, "Acute Care Surgery: Eraritjaritjaka," prompted a well-crafted letter to the editor written collectively by Dr. Timmons, Alex B. Valadka, MD, FACS, and Richard G. Ellenbogen, MD, FACS. The letter was published in the December 2006 issue of JACS.

"The Board of Directors approved the American Association of Neurological Surgeons and Congress of Neurological Surgeons Position Statement on Emergency Services and the Acute Care Surgeon: Ensuring Patient Safety," in November 2006, which was another demonstration of the AANS commitment to this issue," stated Dr. Timmons.

"And the AANS has been very supportive of task force efforts to rectify misconceptions and skewed data being utilized in a negative manner by other specialties. I am pleased to be part of the process of addressing challenges in emergency medicine and working on solutions to remedy them," concluded Dr. Timmons.

Dr. Timmons is a practicing member of the Semmes-Murphey Neurologic and Spine Institute and assistant professor and chief of Neurotrauma Division, Department of Neurosurgery, University of Tennessee Center for Health Sciences in Memphis, Tenn.

The AANS Voice Grows

The AANS has become a meaningful voice of neurosurgery through rich and varied media and public outreach campaigns. Building on 2007 AANS Annual Meeting visibility, an interview request from AP generated a second AP article in less than a two-week period. The interview, on minimally invasive surgery techniques, fielded by Gail L. Rosseau, MD, led to nearly 200 articles in major newspaper, online and broadcast outlets for a combined total circulation of more than 204 million in late April to early May.

Shortly thereafter, Howard L. Weiner, MD, was spotlighted in an interview on the June 12 edition of Night Talk, a Bloomberg Television news program that airs in 36 million homes across the country and in select markets abroad. Dr. Weiner spoke about recent strides made at the NYU Comprehensive Epilepsy Center in treating children with particularly difficult cases of epilepsy. In conjunction with that, Dr. Weiner was featured in a press release on epilepsy that the AANS distributed the first week of June, which generated an additional 8.2 million in media circulation.

The AANS has become a meaningful voice of neurosurgery through rich and varied media and public outreach campaigns.

Injury Prevention Scores Significant Media Coverage

Launching the first in a series of head injury prevention campaigns, the AANS scored major media coverage in August 2006 on the sportsrelated head injuries press release featuring Arthur L. Day, MD, FACS. The release, which focused on biking safety, generated articles in nearly 30 major newspaper and online outlets for a combined total circulation of nearly 46 million. This campaign also led to an interview by Dr. Day with Reuters.

Winter head injury prevention was in the news in December 2006, when the AANS generated the highest media circulation ever for a nonscientific press release. The release focused on preventing winter sports-related head injuries and falls on the snow and ice. There were more than 125 articles, generating total circulation exceeding 141 million.

Literary Tradition — A Strong AANS Voice

In fiscal year 2007, AANS and its publishing partner, Thieme, introduced the second atlas in an acclaimed series, Neurosurgical Operative Atlas: Spine and Peripheral Nerves. The atlas carries 15 Category I continuing medical education credits. Also released this year was a book derived from Harvey Cushing's remarkable personal collection in the Brain Tumor Registry, The Legacy of Harvey Cushing: Profiles of Patient Care. The book presents a stunning historical account of Cushing's surgical cases and research from 1905 to 1930 and features 800 of Cushing's surgical drawings and photographs.

The AANS Bulletin continued to publish in-depth peer-reviewed articles, enhanced by four-color printing throughout and an array of creative cover art. The Bulletin also launched an online manuscript submission process, facilitating the peer-review process. Cover articles included: Completing the Picture: Assessing Neurosurgical ER Coverage; The Patient at the Center of Care; Toward Harnessing Forces of Change: Assessing the Neurosurgical Workforce; and Emergency Care for Kids: Can Neurosurgery Do Even Better?

DEBORAH L. BENZIL, MD

AANS Bulletin Peer Review Editor

When Deborah L. Benzil, MD, assumed the role of peer-review editor for the AANS Bulletin in 2006, she accepted the challenge from Bulletin Editor William T. Couldwell, MD, PhD, to stimulate submission of quality research papers to neurosurgery's premier socioeconomic and professional publication.



The peer-reviewed research portion of the

Bulletin provides a publication venue for research focused on issues in neurosurgery such as ER patient transfers, workforce numbers, and resident work hours. Recognizing the dearth of reliable data on which to base advocacy and healthcare policy decisions, James R. Bean, MD, the Bulletin editor at the time, introduced peer-reviewed research to the Bulletin in 2004, with Mick J. Perez-Cruet, MD, leading the peer-review panel.

"I took the baton from them, and I'm working to move this important component of the Bulletin forward," said Dr. Benzil.

As peer-review editor, she works with Dr. Couldwell and the editorial office to consider articles, assign reviewers, and communicate decisions on papers to their authors. To support these efforts, professional software launched in February offers an online portal for submission of general articles as well as peer-reviewed research.

"The online portal eases manuscript submission, and the software greatly facilitates the peer-review process," she said. "It also fosters direct invitation to authors of appropriate research, which has resulted in a significant increase in research submissions since the system became operational."

Most neurosurgeons identify socioeconomic topics as among the most critical issues they face. "While socioeconomic issues absolutely are impacting the way we practice, there has been very little research that produces data useful for making policy and practice decisions," said Dr. Benzil. "The Bulletin is the first publication in neurosurgery to dedicate a portion of every issue to this type of research. Data has the power to drive healthcare policy and advocacy efforts, and we need greater awareness of the value of this work."

Dr. Benzil is associate professor at New York Medical College and a neurosurgeon at Westchester Spine and Brain Surgery PLLC in Hartsdale, N.Y.

The Neurosurgery Research and Education Foundation (NREF) was created in 1981 as a response to the alarming decline in federal and private funding for medical research. Since the NREF awarded its first grant in 1983, a steady increase in support has led to the granting of 127 awards. The vast majority of the residents and young clinicians/researchers who have received NREF grants continue to contribute significantly to neurosurgical research in their professional careers.

Members stepped up and increased their giving this fiscal year. There were 222 first-time donors and the total monetary contributions increased by 17 percent from the prior year. Dues invoices and the new AANS Annual Meeting Registration form generated a total of \$144,296.20, equating to more than a \$10,000 increase from the previous year. Corporate donations also increased, leading to an overall 34 percent increase in total contributions from the prior year.

Since the NREF awarded its first grant in 1983, a steady increase in support has led to the granting of 127 awards.



Through the generous support of members, corporations, and the public, the NREF continued its legacy of support by awarding a total of 13 research grants in fiscal year 2007. Of the 13 grants, five were cosponsored by corporations.

Young Clinician Investigator Award (40,000 for one-year)

- John A. Boockvar, MD, Weill Cornell Medical College, Mechanisms Underlying EGFR-Mediated Human Adult Progenitor Cell Invasion
- Alfredo Quiñones-Hinojosa, MD, Johns Hopkins University, Migration of Human Neural Stem Cells In Vitro and In Vivo

- Michael D. Taylor, MD, PhD, FRCS(C), Hospital for Sick Children, High Resolution Genotyping of Pediatric Medulloblastoma
- G. Edward Vates, MD, PhD, University of Rochester, (cosponsored by W. Lorenz Surgical), Dysregulation of Functional Hyperemia after Subarachnoid Hemorrhage

Research Fellowship Award (\$40,000 for one year, \$70,000 for two years)

- David Ming Liang Cheng, MD, (2-Year), Massachusetts General Hospital, The Role of the Primate Neostriatum in Learning Novel Visual-Motor Associations
- Lewis Chun Hou, MD, (2-Year), Stanford University, Integrin ανβ3 based Molecular Imaging of Tumor Angiogenesis in a Mouse Post-Resection Glioblastoma Multiforme Model
- Eric M. Jackson, MD, (1-Year), University of Pennsylvania, Chromosome 22 Deletions and Aberrant INI1 Expression in Pediatric and Adult Gliomas
- Adrian W. Laxton, MD, (1-Year), University of Toronto, (cosponsored by Medtronic), *The Modulation of Cognitive Function Using Electrical Stimulation*
- Daniel A. Lim, MD, PhD, (1-Year), University of California San Francisco, Role of the Mll Chromatin Remodeling Gene in the Control of Adult Brain Neural Stem Cells
- Jean-Christophe Leveque, MD, (1-Year), University of Michigan, (cosponsored by Kyphon Inc.), Development of a Novel Neuron-Anatomical Scaffold for the Purpose of Spinal Cord Regeneration after Implantation in Rat Models
- Neil R. Malhotra, MD, (1-Year), University of Pennsylvania, (cosponsored by DePuy Spine, a Johnson & Johnson company), Injectable Hydrogels to Support Nucleus Pulposus Function and their Potential to Deliver Therapeutic Agents
- Wael Musleh, MD, PhD, (1-Year), University of Chicago, The Role of Calpain-Mediated Modification of Delayed-Rectifier Potassium Channels in Subarachnoid Hemorrhage-Induced Vasospasm
- Lyman Whitlach, MD, PhD, (1-Year), Duke University, (cosponsored by Kyphon Inc.) Elastin-Laminin Copolymers for Intervertebral Disc Repair

MARTIN H. WEISS, MD, FACS NREF Executive Council Chair



Martin H. Weiss, MD, FACS, was appointed chair of the NREF Executive Council in October 2004, following Julian T. Hoff, MD's seven years of service as chair of the NREF. Dr. Weiss served in this position until April 2007,

and like his predecessor, brought considerable grace, skill, and passion to supporting the endeavor of neurosurgical research.

Through his visionary leadership, Dr. Weiss helped the NREF make considerable strides, building on the accomplishments made by Dr. Hoff. Under Dr. Weiss' leadership, the program continued to see significant growth. A good part of his efforts focused on increasing member donations and corporate sponsorship, which both came to fruition — translating into more grants awarded. There were nine recipients in fiscal years 2005 and 2006, and this increased to 13 in fiscal year 2007.

"I truly believe that by supporting talented clinician scientists in their research efforts to unravel the complex structures underlying neurological conditions and diseases, the NREF is helping to shape the future of our specialty, and ultimately — improving patient care," stated Dr. Weiss.

"Research and development are the lifeblood of any profession, and I am proud that I had the opportunity to help further this worthy cause during my term as NREF chair. It was especially important to me to be part of the NREF as it celebrated 25 years of supporting neurosurgical research in 2006. Although I am no longer chair, I look forward to seeing the NREF continue to grow by leaps and bounds under the able leadership of Griffith R. Harsh IV, MD, MA, MBA, FACS.

Dr. Weiss is professor of Neurological Surgery at the University of Southern California in Los Angeles, Calif.



About 30,000 Americans suffer subarachnoid hemorrhage (SAH) every year from a ruptured aneurysm. Of these, half will not live longer than a month, and of those who do survive, half will suffer permanent neurologic deficits, usually due to strokes suffered in the days to weeks after aneurysm rupture. These strokes are caused by vasospasm, a constriction of the arteries that supply blood to the brain caused by the blood released by the ruptured aneurysm into the spinal fluid that surrounds these arteries.

Understanding how SAH causes strokes, and more specifically the role of astrocytes, was the worthy goal that G. Edward Vates, MD, PhD, embarked upon one year ago — research that has the potential to lead to new treatments, increased survival, and an improved quality of life for SAH survivors.

"Preliminary evidence suggests that, after SAH, astrocytes lose their normal ability to regulate blood flow. If this is true, and if pharmacologic methods are discovered that can restore the ability of astrocytes to control blood flow, it is possible that we will be able to better understand how SAH causes stroke, and how to prevent the devastating consequences of aneurysm rupture," said Dr. Vates.

"I am grateful to the NREF for providing critical support to research that, in the near term, allowed me to garner highly coveted and increasingly competitive NIH funding, and in the long term, may help prevent the most feared outcome of SAH."

Dr. Vates is assistant professor, Department of Neurosurgery, the University of Rochester Medical School in Rochester, N.Y. The NREF also realized the inception of several new grant initiatives, which will come to fruition in fiscal year 2008:

- The Joint Section on Spine and Peripheral Nerves cosponsored Young Clinician Investigator Award
- The American College of Surgeons/AANS-NREF Faculty Career Development Award
- The Bagan Family Fellowship, funded by Merwyn Bagan, MD, MPH, and Carol Bagan



Ninth Annual Silent Auction Soars to New Fundraising Heights

The Ninth Annual Silent Auction at the 2007 AANS Annual Meeting was sponsored again by the Young Neurosurgeons Committee (YNC) and benefited the NREF and its research grant program. New this year, the NREF contracted with the online auction company c-Market to offer members and interested bidders online access to the auction, allowing for off-site bidding. Dr. Quiñones-Hinojosa, the auction's chairman was pleased to report that this year's fundraising goal of \$30,000 was exceeded; the auction netted \$38,776 in support — an increase of more than \$8,000 from the previous year.

Industry Integral to Supporting Research and Education

The Corporate Associates Program enables industry to help support young researchers working on potential treatments and cures for

DANIEL A. LIM, MD, PHD Research Fellowship Award Recipient

The potential use of adult neural stem cells in treating a wide range of neurological diseases and conditions is a very exciting, yet relatively untapped area of medical research. Another important aspect of this research is the putative role of neural stem cells in the development of gliomas. Stem cell maintenance mechanisms are likely abnormal in oncogenesis, and there is increasing evidence that gliomas arise from neural stem cells.



"Chromatin-remodeling is an emerging research topic in neural cell biology. How do stem cells in the adult brain make new neurons? For this to occur, specific subsets of genes within progenitor cells need to be maintained 'on,' and other genes need to be kept 'off.' The maintenance of such patterns of gene expression is in part regulated by the structure of chromatin, the complex of DNA and histone proteins. We have found that the chromatin remodeling gene MLL is essential for postnatal neural stem cells to generate new neurons, but not for the formation of supporting glial cells. This finding could help guide neural stem cells to generate neurons for therapeutic goals," stated Daniel A. Lim, MD, PhD.

"The goal of this research is to uncover the mechanisms by which stem cells maintain the potential to assume multiple cell types, which may inevitably help us understand how they can be manipulated for therapeutic grafting, as well as offer insight into formation of brain tumors," remarked Dr. Lim.

"I am thankful to the NREF for giving me this once-in-a-lifetime opportunity to pursue important scientific research that may one day lead to practical applications for patients living with brain tumors and numerous other devastating neurological conditions," concluded Dr. Lim.

Dr. Lim is a resident, Department of Neurological Surgery, the University of California, San Francisco.

Donor Support 2006 – 2007

neurosurgical diseases and conditions that affect millions of people. Corporations that contributed to this program in fiscal year 2007: DePuy Spine, a Johnson & Johnson company, Kyphon Inc., Biomet Microfixation, Porex Surgical, Inc., Anspach, and Integra Foundation.

Launched in fiscal year 2006, the Corporate Leadership Council is a forum for corporate partners to have an active voice in AANS initiatives. The Pinnacle Partners Program, now in its fourth year, continues to grow, with four new companies signing on this year. The program helps the AANS continue its tradition of offering innovative educational programming throughout the year. This sponsorship offers companies a unique opportunity to establish added recognition and greater visibility by connecting with AANS members. The AANS gratefully acknowledges the support of the following Pinnacle Partners companies:

Four New AANS Pinnacle **Partners**

- Codman, a Johnson & Johnson company and DePuy Spine, a Johnson & Johnson company
- · Globus Medical
- Integra Foundation
- · Synthes Spine

Seven AANS Pinnacle Partners Renewed their Support

- Boston Scientific
- Carl Zeiss Meditec
- · Cordis Neurovascular, Inc., a Johnson & Johnson company
- Kyphon Inc.
- Medtronic
- Micrus Endovascular Corporation
- Stryker



The Neurosurgery Research and Education Foundation (NREF) gratefully acknowledges and appreciates the generous support of the following individuals, groups and corporations who made their contributions from July 1, 2006 through June 30, 2007.

Gifts of \$5,000 to \$14,999

Dr. Merwyn Bagan & Mrs. Carol Bagan

Thomas A. Carlstrom, MD, PC, FACS

Hans C. Coester, MD, FACS

Emily D. Friedman, MD

Charles Joseph Hodge Jr., MD

John A. Jane Sr., MD, PhD

Dr. & Mrs. Mark J. Krinock

G. Edward Vates, MD, PhD

Seth M. Weingarten, MD

Gifts of \$2,500 to \$4,999

Anonymous

John G. Golfinos, MD

Dr. & Mrs. Robert G. Grossman

Dr. & Mrs. Robert L. Grubb Jr.

Samuel J. Hassenbusch, MD, PhD

Henry Ford Health System

Marc A. Letellier, MD

Methodist Hospital

Russel H. Patterson Jr., MD

Dr. & Mrs. Donald O. Ouest

Edward Von der Schmidt III, MD

Gifts of \$1,000 to \$2,499

Christopher J. Abood, MD

Jaime A. Alvarez, MD

Michel W. Andre Kildare, MD

Drs. Ronald I. Apfelbaum &

Kathy Murray

Dr. & Mrs. Nicholas M. Barbaro

Dr. & Mrs. James R. Bean

Charles H. Bill II, MD, PhD

Peter McL. Black, MD, PhD

Gary M. Bloomgarden, MD

Boston Pediatric

Neurosurgical Foundation

Charles L. Branch Jr., MD

Henry Brem, MD, FACS Kim J. Burchiel, MD, FACS

Albert J. Camma, MD, FACS John R. Caruso, MD, FACS

Israel P. Chambi-Venero, MD, FACS

Dr. & Mrs. Lawrence S. Chin

Maurice Collada Jr. MD

William T. Couldwell, MD, PhD

Jeffrey W. Cozzens, MD

Arthur L. Day, MD, FACS

Fernando G. Diaz, MD, PhD

Dr. & Mrs. Stewart B. Dunsker

Howard M. Eisenberg, MD

Dr. & Mrs. Richard G. Ellenbogen

A. Willard Emch, MD

Dr. & Mrs. Richard G. Fessler

Eugene S. Flamm, MD

Allan H. Friedman, MD, FACS

Mark A. Gold, MD, FACS

Julius M. Goodman, MD

M. Sean Grady, MD Robert E. Gross, MD, PhD

Regis W. Haid Jr., MD

Robert E. Harbaugh, MD, FACS

M. Peter Heilbrun, MD

L. N. Hopkins III, MD

Matthew A. Howard III. MD

Theodore R. Jacobs, MD

Richard William Johnson, MD

Joseph T. King Jr., MD

Robert B. King, MD

Thomas A. Kingman, MD, FACS

Myron B. Kratzer, MD

Frederick F. Lang Jr., MD

Michael H. Lavyne, MD

Benjamin B. Lecompte III, MD

Kendall H. Lee, MD, PhD

David C. Leppla, MD

Monica W. Loke, MD

Andres M. Lozano, MD, PhD

Robert L. Macdonald, MD, PhD

James M. Markert Jr., MD

Robert L. Martuza, MD

Bruce E. Mathern, MD

Catherine Anne Mazzola, MD

Paul C. McCormick, MD

Guy M. McKhann II, MD

Dr. & Mrs. Daniel L. McKinney

Michigan Brain & Spine Institute

Horace Lee Mitchell, MD

K. Krishna Murthy, MD

Hiroshi Nakagawa, MD

Dr. & Mrs. Herbert M. Oestreich

Gregory M. Oetting, MD

Dr. & Mrs. Robert G. Ojemann

George A. Ojemann, MD

Stephen T. Onesti, MD, FACS

Frank T. Padberg, MD

Tae Sung Park, MD

Rob G. Parrish, MD, PhD

Wayne S. Paullus Jr., MD

Bruce E. Pollock, MD

Kalmon D. Post, MD

Stephen K. Powers, MD, FACS

Dr. & Mrs. Robert A. Ratcheson

Richard B. Raynor III, MD

Stuart Glen Rice, MD, FACS

Dr. & Mrs. David W. Roberts

Dr. & Mrs. Jon H. Robertson

Drs Robert H. Rosenwasser &

Deborah August Gail L. Rosseau, MD

Richard L. Rovit, MD

James T. Rutka, MD, PhD, FRCS

Raymond Sawaya, MD

John F. Schuhmacher, MD, FACS

Edward L. Seljeskog, MD, PhD

Dr. & Mrs. Warren Selman

John Lawrence Seymour, MD

Dr. & Mrs. S.J. Shahid Michael B. Shannon, MD

Dr. & Mrs. Scott Shapiro

J. Marc Simard, MD, PhD

Volker K. H. Sonntag, MD

Gary K. Steinberg, MD, PhD

Philip E. Stieg, MD, PhD Karen Talmadge, PhD

B. Gregory Thompson Jr., MD

Troy M. Tippett, MD

University of Pittsburgh Medical Center

Alex B. Valadka, MD, FACS

John G. Van Gilder, MD

Dr. & Mrs. Ronald E. Warnick

Dr. & Mrs. Clarence B. Watridge

Martin H. Weiss, MD, FACS

H. Richard Winn, MD

Fremont P. Wirth, MD Yale School of Medicine

Ahmet Yildizhan, MD

Eric L. Zager, MD

Drs. Seth Zeidman & Eva Pressm Gifts of \$500 to \$999

Rick Abbott, MD

American Board of Neurological Surgery

Craig Bash, MD

J. Bradley Bellotte, MD Vallo Benjamin, MD Lewis J Brown MD Luis A. Cervantes, MD, FACS G. Rees Cosgrove, MD, FRCS(C) Pamela J. Costello, MD, PhD Frank Culicchia, MD Dr. & Mrs. Robert J. Dempsey Kristine Feikert Kenneth A. Follett, MD, PhD Stephen R. Freidberg, MD Franz E. Glasauer, MD Michele & Chip Gregory Douglas Hershkowitz, MD R. Patrick Jacob, MD David G. Kline, MD Ranjit Kumar Laha, MD Blas Ezequiel Ezequiel Lopez Felix, MD Dr. & Mrs. Timothy B. Mapstone Thomas A Marshall James Dean Mills, MD Victoria Neave, MD Stephen K. Ofori-Kwakye, MD Katie Orrico, JD Russell M. Pelton, JD David George Piepgras, MD Dr. A. John Popp & Mrs. Margaret Vosburgh Dr. & Mrs. Morris Pulliam John F. Raggio, MD Sanjay C. Rao, MD Kenneth J. Richland, MD Michael Schulder, MD Dr. & Mrs. Randall W. Smith Dennis D. Spencer, MD Robert F. Spetzler, MD Albert Leo Timperman, MD Dennis A. Turner, MD Kevin A. Walter, MD Phillip E. Williams Jr., MD Steven Christopher Zielinski, MD Grea Zorman, MD Edie E. Zusman, MD, FACS

Gifts of \$250 to \$499

Ramin M. Abdolvahabi, MD, PhD Laurie Lynn Ackerman, MD Rafael Allende, MD Jose Fausto Alvarez-Dib, MD Shapur A. Ameri, MD Brian T. Andrews, MD Gustavo J. Arriola, MD

Deborah L. Benzil, MD Mitchel S. Berger, MD, FACS Thomas A. Bergman, MD William B. Betts, MD Richard P. Boyer, MD Jeffrey N. Bruce, MD, FACS Dr. & Mrs. Derek A. Bruce David A. Cech, MD, FACS Bohdan W. Chopko, MD, PhD Ray M. Chu, MD Harold J. Colbassani Jr., MD Jeffrey L. Crecelius, MD Luiz Carlos deAraujo, MD, FACS John J. Demakas, MD Emmet Hunter Dyer, MD Susan M. Eget Bruce L. Ehni, MD Mr. & Mrs. Ronald Engelbreit George D. England, MD, MS Andrew D. Fine, MD Donald Harry Frank, MD, FACS Marc H. Friedberg, MD, PhD Roberta P Glick MD Dr. & Mrs. Stuart G. Goodman Hamilton C. Goulart, MD Kimberly S. Harbaugh, MD Odette Althea Harris, MD, MPH Michael D. Heafner, MD Robert F. Heary, MD Dr. & Mrs. Jay U. Howington Judy Huang, MD Umeo Ito MD Samuel S. Kasoff, MD Barry Irving Katz, MD Dr. & Mrs. Mark J. Kubala Martin L. Lazar, MD, FACS Robert Levinthal, MD, FACS Adam I. Lewis, MD Christopher M. Loftus, MD, FACS Hisham S. Majzoub, MD Clinton Edward Massey, MD William H. McAllister IV, MD John E. McGillicuddy, MD Dr. & Mrs. Robert C. Meredith William J. Meyer MD Carole A. Miller, MD Abraham Mintz, MD Richard Bacon Morawetz, MD

John (Jack) LeRoy Moriarity Jr., MD

Harrison T. M. Mu, MD

Emilio M. Nardone, MD

Ewell Lee Nelson III, MD

Raj Murali, MD

Paul B. Nelson, MD New York Spine & Neurosurgery Associates PC William George Obana, MD Richard A. Olafson, MD Kimberly Ann Page, MD Necmettin M. Pamir, MD, Prof. Andrew D. Parent, MD Charles Park, MD, PhD Mick J. Perez-Cruet, MD William L. Pritchard, MD Morris Wade Pulliam MD R. L. Patrick Rhoten, MD Julio E. Rosado Jr., MD Leif G. Salford, MD, PhD Jose Santos Pico, MD Keith L. Schaible, MD James F. Schmidt, MD David Louis Semenoff, MD Beth A. Seuferer Set Shahbabian MD Robert John Sieling, MD Julius Anthony Silvidi, MD Harold Karrlin Smith, MD William W. S. So, MD Joseph Sramek, MD Mark A. Testaiuti, MD Humberto Tijerina, MD D. Roxanne Todor, MD Sidney Tolchin, MD Bruce Tranmer, MD Hani J. Tuffaha, MD Agnes Walker Bruce L Wilder MD FACS John A. Wilson, MD, FACS Daniel Won, MD Masaaki Yamamoto, MD David Allan Yazdan, MD Ann-Marie Yost, MD Alfred Byron Young, MD William F. Young, MD Joseph M. Zabramski, MD John I. Zinkel MD PhD

Gifts of \$100 to \$249

Kevin M. Zitnay, MD

Eustaquio O. Abay II, MD Hatem S. Abdo, MD M. Samy Abdou, MD Moustapha Abou-Samra, MD John M. Abrahams, MD Joel N. Abramovitz, MD Ariel F. Abud. MD Cynthia Zane Africk, MD, FACS Charles B. Agbi, MD, FRCS(C) Faisal J. Albanna II, MD, FACS Anthony M. Alberico, MD Mathew T. Alexander, MD Brent T. Alford, MD David W. Allen, MD, PC Marshall B. Allen Jr., MD Michael Albert Amaral, MD, FACS Nobuo Aoki, MD Alan J. Appley, MD, FACS Haiime Arai, MD Roberto J. Aranibar, MD Rex E. H. Arendall II, MD, FACS Neal I. Aronson, MD Sam Assam, MD Blaise U. Audet, MD Nathan C. Avery, MD Jose Avila-Ramirez, MD Robert J. Backer, MD Julian E. Bailes Jr., MD Walter L. Bailey, MD Saeed Baiwa MD Roy A. E. Bakay, MD Robert S. Bakos, MD R. E. Balch, MD Hillel Baldwin, MD Nevan G. Baldwin, MD, FACS Florence C. Barnett, MD John D. Barr, MD Jay M. Barrash, MD, FACS Christopher J. Barry, MD Ernest A. Bates, MD Ramon A. Batson, MD Janet W. Bay, MD Curtis L. Beauregard, MD Sylvia Bele, MD Dr. & Mrs. Edward C. Benzel Karin Sabin Bierbrauer, MD Mark H. Bilsky, MD Deborah A. Blades, MD David R. Blatt, MD Kenneth S. Blumenfeld, MD Miroslav P. Bobek, MD Paolo A. Bolognese, MD Frederick A. Boop, MD, FACS Lawrence F. Borges, MD Bikash Bose, MD, FACS Bradley S. Bowdino, MD Mr. & Mrs. Dan & Carolyn Bowman Christopher M. Boxell, MD Robert H. Bradley, MD

John Brayton, MD, FACS

Naomi R. Breiner, ARNP, MSN Rudy P. Briner, MD Gavin W Britz MD William H. Brooks, MD Jeffrey A. Brown, MD, FACS Terri L. Bruce Michael Naldo Bucci, MD, FACS Russell I. Buchanan, MD William A. Buchheit, MD James L. Budny, MD, FACS M. Ross Bullock, MD, PhD Michael James Burke, MD, FACS Robert C. Buza, MD David B. Bybee, MD, FACS Paul Joseph Camarata, MD George Stuart Cameron, MD Cliff L. Cannon Jr., MD Harold C. Cannon, MD, FACS Louis P. Caragine Jr., MD, PhD Carolyn Marie Carey, MD, FACS Benjamin Solomon Carson, MD L. Philip Carter, MD William L. Caton III. MD David Cavanaugh, MD R. Cem Cezayirli, MD, FACS David Chalif, MD, FACS E. Thomas Chappell, MD, FACS Augusto R. Chavez, MD Tamerla D. Chavis, MD Mokbel K. Chedid, MD, FACS Jefferson W. Chen, MD, PhD Mike Yue Chen, MD Pena Roc Chen, MD David Ming Liang Cheng, MD Yung-Hsiao Chiang, MD, PhD Mike Wooliang Chou, MD Sean D. Christie, MD Yong-Gu Chung, MD, PhD Young Chung, MD Christopher Edward Clare, MD John Cleary, MD Ronald J. Cohen, MD Geoffrey P. Cole, MD James C. Collias, MD Frederic Pierre Collignon, MD William F. Collins Jr., MD Edward S. Connolly, MD Judson H. Cook, MD, MS Shon W. Cook, MD Martin Cooper, MD Gregory Corradino, MD Paul D. Croissant, MD

John S. Crutchfield, MD, FACS

John T. Cummings Jr., MD William T. Curry Jr., MD Brian V Curtis MD Scott G. Cutler, MD Vasco F. Da Silva, MD Lycurgus M. Davey, MD Carlos A. David, MD Reginald J. Davis, MD, FACS John Diaz Day, MD Reynaldo De Jesus Rodriguez, MD Paulo Andrade de Mello, MD Fernando Delasotta, MD, FACS Ryan P. Den Haese, MD William O. DeWeese, MD Marguerite A. Dewitt Mark A. J. Dexter, MD Subhash R. Dharker, MD Mark S. Dias, MD Victor Manuel Diaz-Simental, MD Donald D. Dietze, MD George V. DiGiacinto, MD James D. Dillon, MD, PC Gary A. Dix, MD Sanat Dixit, MD Curtis E. Doberstein, MD Robert L. Dodd, MD Michael Dogali, MD Eugen James Dolan, MD David J. Donahue, MD Jill W. Donaldson, MD Jose Dones-Vazquez, MD Michael Dorsen, MD, FACS Clifford C. Douglas, MD, PhD Gregory C. Dowd, MD Werner K. Doyle, MD, FACS James M. Drake, MD Lawrence Drerup, MD, FACS Luis E. Duarte, MD, FACS Annie Dubuisson, MD Kent R. Duffy, MD Scott C. Dulebohn, MD James M. Ecklund, MD, FACS Fredric L. Edelman, MD Michael S. B. Edwards, MD, FACS Fldan B. Fichbaum, MD. Stephanie L. Einhaus, MD

Mark B. Eisenberg, MD

J. Paul Elliott, MD

John M. Emery III, MD

Nancy Epstein, MD, FACS

Muftah Sam Eljamel, MD, FRCS

Patrick W. Elwood, MD, FACS

Mark S. Ercius, MD Shahin Etebar, MD Dr. & Mrs. Bruce A. Everett Walter J. Faillace, MD, FACS Joel L. Falik, MD Thomas B. Falloon, MD Michael G. Fehlings, MD, PhD Joel A. Feigenbaum, MD Claudio Andres Feler, MD, FACS Robert A. Fenstermaker, MD Basilio Fernandez, MD Rene A. Fernette, PA-C Henry Feuer, MD E. Malcolm Field, MD SanforD, Fineman, MD, FACS Katrina S. Firlik, MD Duncan Kinnear Fischer, MD, PhD Lynn F. Fitzgerald, MD, PhD Jeffrey Evan Florman, MD Kevin T. Foley, MD Thomas R. Forget Jr., MD Joel Ira Franck, MD, PA Roger H. Frankel MD Lawrence J. Frazin, MD, FACS Michael H. Freed, MD Richard E. Freeman, MD Anthony K. Frempong-Boadu, MD Barry N. French, MD Kai U. Frerichs, MD Chester Babson Fresh, MD Victor T. Freund, MD Robert M. Friedlander MD Phillip Friedman, MD, FACS Harry Friedman, MD Stanley W. Fronczak, MD, JD, FACS Kimball S. Fuiks, MD Mark A. Fulton, MD Eric M. Gabriel, MD Duane B. Gainsburg, MD, FACS Clifford Miles Gall, MD Regan Shaun Gallaher, MD William F. Ganz, MD, FACS Stephen R. Gardner, MD, FACS Allan L. Gardner, MD Ira M. Garonzik, MD Arnulfo R. Garza-Vale, MD H. Harvey Gass, MD Grant E. Gauger, MD Frank L. Genovese, MD

Fred Gentili, MD

Mark S. Gerber, MD

Robert E. Germann, MD, PC

Isabelle M. Germano, MD, FACS Gregory G. Gerras, MD Robert J. Gewirtz, MD, FACS Abdi S. Ghodsi, MD Subrata Ghosh, MD Kevin J. Gibbons, MD, FACS Michael Gieger, MD Holly S. Gilmer-Hill, MD Howard J. Ginsberg, MD, PhD, FRCS Ziya L. Gokaslan, MD, FACS Todd M. Goldenberg, MD, FACS Stephen I. Goldware, MD, FACS Stanley J. Goodman, MD Jordan C. Grabel, MD Vicente C. Gracias, MD Jon F. Graham, MD, FACS John Marshall Grant, MD Ronald S. Greenwald, MD Henry J. Greenwood, MD, FACS C. Russ Greer MD Yannick Grenier, MD Peter J. Grillo, MD, FACS Gary R. Gropper, MD David P. Gruber, MD Martin E. Gryfinski, MD Maria Ann Guglielmo, MD Gerardo Guinto Balanzar, MD Jean M. Guitton, MD Nalin Gupta, MD, PhD Murali Guthikonda, MD, FACS Lisa L. Guyot, MD, PhD Ryder P. Gwinn, MD Michael V. Hajjar, MD Steven C. Hamel, MD Edward George Hames III, MD, PhD John Franklin Hamilton, MD, PhD Glenn E. Harper, MD J. Frederick Harrington Jr., MD David Houston Harter, MD Richard C. Hartwell, MD, PhD Nobuo Hashimoto, MD Michael A. Healy, MD Carl Barnes Heilman, MD Amy B. Heimberger, MD Tomasz K. Helenowski, MD Philip Henkin, MD Efrain Ernesto Herrera Magana, MD David A. Herz, MD, FACS

Philip J. Hlavac, MD

Mary Louise Hlavin, MD

Jonathan E. Hodes, MD, MS Perry Bruno Hoeltzell. MD, PhD, MSc Peter O. Holliday III, MD Peter H. Hollis, MD Eric K. Holm, MD, FACS Brian Holmes, MD Robert N. N. Holtzman, MD John Harrel Honeycutt, MD Robert S. Hood, MD Donald G. Hope, MD Timothy Edward Hopkins, MD Zenko J. Hrynkiw, MD Paul P. Huang, MD, FACS George V. Huffmon III, MD Matthew K. Hummell, MD Alan T. Hunstock, MD, FACS Warren Yukio Ishida, MD Bermans J. Iskandar, MD Masanori Ito, MD Yasunobu Itoh MD DMSc Brian A. Iuliano, MD George I. Jallo, MD Saied Jamshidi, MD Randy Lynn Jensen, MD, PhD Dale K. Johns, MD John K. Johnson, MD, FACS Douglas L. Johnson, MD, PhD William J. Johnston Jr., MD F. Douglas Jones, MD F. Richard Jordan, MD Kevin D. Judy, MD Chikafusa Kadowaki, MD, DMSc lain H. Kalfas, MD Charles C. Kanos, MD Dean G. Karahalios, MD Jeffrey L. Karasick, MD Michael E. Karnasiewicz, MD John M. Kast. MD M. Richard Katz, MD Andrew B. Kaufman, MD Robert F. Keating, MD David B. Kee Jr., MD Craig M. Kemper, MD F. Donovan Kendrick, MD David G. Kennedy, MD Matthew B. Kern Oliver Lee Kesterson, MD Agha Shahid Khan, MD Larry T. Khoo, MD Steven P. Kiefer, MD Anie Kim, MD

Hyung Dong Kim, MD

Young H. Kim, MD Jhinho Kim, MD Moo Seong Kim, MD, DMSc Daniel L. Kitchens, MD, FACS Dr. Lee Metcalf A. Bernhard Kliefoth III, MD David S. Knierim, MD Joseph L. Koen, MD Leonard I. Kranzler, MD Satish Krishnamurthy, MD John J. Kruse, DMD, MD David C. Y. Kung, MD Byung Duk Kwun, MD, PhD James R. La Morgese, MD Barry J. Landau, MD Fraser Edmond Landreneau, MD, FACS David J. Langer, MD Todd Hopkins Lanman, MD Jeffrey J. Larson, MD John Pershing Latchaw, MD Edmund P. Lawrence Jr., MD Fredric Lax, MD Sheldon Lazar, MD Barbara E. Lazio, MD Chul Hee Lee Marco B. Lee, MD James W. Leiphart, MD, PhD Michael A. Leonard, MD Jodie K Levitt MD Marc Levivier, MD, PhD Veetai Li. MD Daniel M. Lieberman, MD Leon K. Liem, MD Tina Lin. MD John D. Lipani, MD, PhD John D. Loeser, MD Douglas J. Long, MD Jeffrey A. Louie, MD Darren S. Lovick, MD Walter X. Loyola, MD, FACS Kang Lu, MD, PhD Seraio Lutz, MD Aaron Curtis MacDonald, MD. FACS Christopher Ian MacKay, MD Shahram Makoui, MD Amir S. Malik, MD Jacek Marian Malik, MD, PhD Gunwant S. Mallik, MD Stavros N. Maltezos, MD Robert F. Mann, MD

Jim Michael Marchesi

Lucas J. Martinez, MD

Luciano Mastronardi, MD, MS

Chima Osiris Ohaegbulam, MD Masaki Oishi, MD, PhD Hidehiro Oka, MD, DMSc Shige-Hisa Okawara, MD, PhD Alessandro Olivi, MD Jeffrey J. Olson, MD Joe I. Ordia, MD Julio A. Ordonez, MD Richard K. Osenbach, MD Joan Frances O'Shea, MD M. Chris Overby, MD Steve Owen Artur Pacult, MD Juan M. Padilla, MD Luis R. Pagan, MD Sylvain Palmer, MD Andrew Thomas Parsa, MD, PhD Joel T. Patterson, MD Arturo Paz-Esquerre, MD Jeff Erle Pearce, MD Stig E. Peitersen Terrence L. Pencek, MD, PhD Bruce Pendleton MD Srinivasan Periyanayagam, MD Daniel L. Peterson, MD Chris A. Philips Joseph M. Phillips, MD, PhD John G. Phillips, MD Gautam Phookan, MD Cynthia B. Piccirilli, MD Daniel R. Pieper, MD Anselmo Pineda, MD, FACS David T. Pitkethly, MD, FACS Frederick W. Pitts, MD Robert J. Plunkett, MD Ania G. Pollack, MD Dr. & Mrs. Ian F. Pollack David Poulad, MD Vikram C. Prabhu, MD Ashutosh Ashok Pradhan, MD Stefan G. Pribil MD Kenneth O. Price, MD Anthony C. Prochaska Mark R. Proctor, MD Edward Richard Prostko, MD Melvin E. Prostkoff, MD Louis J. Provenza, MD Dr. & Mrs. Gregory J. Przybylski G. Barrie Purves, MD Michael R. Puumala, MD

Joseph V. Queenan, MD

Craig H. Rabb, MD

Michael Howard Rabin, MD Richard Julian Radna, MD, PhD Bimal G Rami MD Lincoln F. Ramirez, MD Archimedes Ramirez, MD Suresh Ramnath, MD Steven M. Rapp, MD Amed A. Rawanduzy, MD Raymond Blaine Rawson, MD William S. Reid, MD Juan Carlos Reina Gama, MD Benjamin J. Remington, MD Justin W. Renaudin, MD Daniel K. Resnick, MD W. Emery Reynolds, MD Nathan Rifkinson, MD Francisco Robaina, MD, PhD Michael Howard Robbins, MD Bernard Robinson, MD Thomas G. Rodenhouse, MD James A. Rodgers, MD Jose L. Rodriguez, MD, FACS Rafael Rodriguez-Mercado, MD, FACS David P. Rojas Pinto, MD, FACS Norman C. Rokosz, MD Marshal D. Rosario, MD Harold Rosegay, MD Szymon S. Rosenblatt, MD Bruce R. Rosenblum, MD Arthur P. Rosiello, MD, FACS Hubert L. Rosomoff, MD Steven Roth, MD Christopher S. Rumana, MD Stephen M. Russell, MD Romolo H. Russo, MD, FACS Ralph Edward Rydell, MD Abubakr D. Salim, MD Srinath Samudrala, MD Anthony Sances Jr., PhD Uriel Sanchez Ramos Dorothea M. Sandin Stephen C. Saris, MD John Sarris, MD Kivoshi Sato, MD Leslie Schaffer, MD Gerald R. Schell, MD Daniel Schmelka, MD Charles L. Schnee, MD, FACS John H. Schneider Jr., MD Steven J. Schneider, MD, FACS

Karl D. Schultz Jr., MD

Robert E. Schultz, MD Jason M. Schwalb, MD William A Schwank MD Michael Louis Schwartz, MD Frederic T. Schwartz, MD, FACS Jacob P. Schwarz, MD Brett Andrew Scott, MD Laligam N. Sekhar, MD, FACS Lali H. S. Sekhon, MD, PhD Brad A. Selland, MD Christopher I. Shaffrey, MD Mark Edwin Shaffrey, MD Kavian Shahi, MD Donald Sheffel, MD Peter E. Sheptak, MD Christopher B. Shields, MD, FRCS(C) Minoru Shigemori, MD Chun-jen Shih, MD Joni L. Shulman Adnan H. Siddiqui, MD, PhD Joel D. Siegal, MD Charles W. Simpson, MD Marc P. Sindou, MD, DSc Robert J. Singer, MD Grant P. Sinson, MD, FACS Theodore Leigh Slade, MD Roger D. Smith, MD Robert B. Snow, MD Michael H. Song, MD Wendy Jennifer Spangler-Morrison MD Mark A. Spatola, MD Caple A. Spence, MD Lawrence M. Spetka, MD Daniel E. Spitzer, MD William W. Sprich, MD, FACS Richard A. Stea, MD Allen Steffens Ladislau Steiner, MD, PhD Juraj Steno, MD, PhD Max R. Steuer, MD Mark Kenneth Stevens, MD, PhD John E. Stevenson, MD John Klotz Stokes Bernard Stopak, MD, FACS Richard Charles Strauss, MD, FACS Douglas L. Stringer, MD Merle Preston Stringer, MD Ann R. Stroink, MD

Julio C. Suarez, MD

Oscar Sugar, MD

Peter P. Sun. MD Naravan Sundaresan, MD Arno S. Sungarian, MD Shigeharu Suzuki, MD Asher H. Taban, MD Peyman R. Tabrizi, MD Kiyoshi Takagi, MD, DMSc Philip W. Tally, MD Mario Augusto Taricco, MD Charles H. Tator, MD, PhD, MA Tetsuo Tatsumi, MD Michael D. Taylor, MD, PhD, FRCS(C) Robert Theodore Tenny, MD Quoc-Anh Thai, MD Nicholas Theodore, MD Najeeb M. Thomas, MD Geoffrey M. Thomas, MD Carson Joseph Thompson, MD. FACS Jeffrey J. Thramann, MD James A. Tiesi, MD Russell I Travis MD Gregory R. Trost, MD Raymond C. Truex Jr., MD Eve C. Tsai, MD, PhD William Stewart Tucker, MD Hari K. Tumu, MD Donn Martin Turner, MD A. Roy Tyrer Jr., MD Jamie S. Ullman, MD Enrique Urculo, MD Dante F. Vacca Alexander Vaccaro, MD, FACS Alan S. Van Norman, MD Gary D. Vander Ark, MD Eugenio F. Vargas, MD Troy M. Vaughn, MD Wayne G. Villanueva, MD, FACS Francisco Villarejo, MD Alan T Villavicencio MD John J. Viola, MD Michael A. Vogelbaum, MD, PhD Ildemaro Jose Volcan, MD Rand M. Voorhies, MD Alan S. Waitze, MD Andrew E. Wakefield, MD Gregory E. Walker, MD Michael A Walker, PA-C, MS Frederick T. Waller, MD Kimberly P. Walpert, MD Paul P. Wang, MD

Ronald K. Warren, MD

Jed P. Weber, MD Jeffrey S. Weinberg, MD Howard L. Weiner, MD Joseph E. Welsh, MD Merylee E. Werthan, MD Charles A. Wetherington, MD Jonathan A. White, MD William L. White, MD Daniel Vernon White, MD Steven B. Wilkinson, MD Thornton Thomas Wilkinson, MD Fred C. Williams Jr., MD Philip J. A. Willman, MD Ronald J. Wilson, MD Jeffrey A. Winfield, MD, PhD Charles J. Winters. MD Dennis D. Winters, MD Timothy C. Wirt, MD Jeffrey H. Wisoff, MD Wayne L. Wittenberg, MD, PhD Brian Palm Witwer, MD Eric H. Wolfson, MD, FACS Karen S. Woncik, MD William H. Wright, MD, FACS Sasan Yadegar, MD Ravi Yalamanchili, MD Shokei Yamada, MD Basil Manley Yates, MD Joseph S. Yazdi, MD John Yen, MD Peter K Yoon MD Julie E. York, MD Daniel Yoshor, MD Young J. Yu, MD Ahmad Zakeri, MD

Kristopher Michael Webb, MD

Gifts up to \$99

Daniel Acosta Diaz de Leon, MD D. Cory Adamson, MD, PhD Rich Aiken Denise Angerstein Yunus Aydin, MD, Prof. Mr. & Mrs. Dan Barzel Juanita Naomi Beal, BSN, CNRN Devin K. Binder, MD, PhD W. Ben Blackett, MD. JD Kimberley A. Bulat Rebecca Calloway-Blyth Linda Cloward

S. Marshall Cushman, MD

Anthony De Marco

William Bradford DeLong, MD Robert E. Dicks III, MD Alessandro Ducati MD Dr. & Mrs. Jacques N. Farkas Rene Finco Eldon L. Foltz, MD Philip D. Gordy, MD Robert M. Hess, MD Kimiyoshi Hirakawa, MD Jerry Huber Eric M. Jackson, MD Nathalie J. Johnson John David Laidlaw, FRACS Jorge J. Lastra-Power, MD Roberto Martinez-Alvarez, MD, PhD Cynthia Marshall McGrath, FNP Matthew Michanowicz Ronald A. Naumann, MD Clark J. Okulski, DO Brian T. Ragel, MD Setti S. Rengachary, MD Kristi A. Richardson Mr. & Mrs. John Roach Mr. & Mrs. Ron & Dorthy Rohlicek George & Joycelyn Russo Jeffrey Wayne Sherman, MD Mr. & Mrs. Michael Stell Hiroshi Takahashi, MD, DMSc Ronald James Thiessen, RN Charles Philip Toussaint, MD

Terry M. Ziemba

John Trice

Laura Velousis

Joseph C. Watson, MD

Michael H. Wefers

Julius D. Zant, MD

Supporting Associates

American College of Surgeons

\$20,000 - \$49,999

Kathryn T. Ulmen, RN, MS, CNRN

Robert Joseph White, MD, PhD

NREF Corporate **Associates** Superior Associate \$75,000 and more DePuy Spine, a Johnson & Johnson company Sustaining Associates \$50,000 - \$74,999 Kyphon Inc.

Porex Surgical, Inc. Associates \$250 - \$4,999 Anspach Companies Cyberonics Elekta IRM Integra Foundation International Business Machine MacLean Surgical Medtronic Neurological Synthes CMF

AANS Pinnacle Partners in

• Boston Scientific, Carl Zeiss

Johnson company, Cordis

Spine, a Johnson & Johnson

company, Globus Medical,

Inc., Medtronic, Micrus

Stryker, Synthes Spine

Contributing Associates

Congress of Neurological

\$5,000 - \$19,999

Surgeons

Biomet MicroFixation

Integra Foundation, Kyphon

Endovascular Corporation,

(formerly W. Lorenz Surgical, Inc.)

Meditec, Codman, a Johnson &

Neurosurgery:

Tributes

The following gifts were made in honor of friends, family members, and colleagues.

Michelle E. Chopko Bohdan W. Chopko, MD, PhD Robert Crowell, MD David C. Leppla, MD

Thomas B. Ducker, MD

Seth M. Zeidman, MD Stewart B. Dunsker MD Ronald E. Warnick, MD

Thomas S. Engelbreit

Mr. & Mrs. Ronald W. Engelbreit Judah Folkman, MD

Richard G. Ellenbogen, MD, FACS Julius Goodman

Oral Board Course Joni L. Shulman David L. Kelly Jr., MD

Charles L. Branch Jr., MD Robert B. King, MD

Myron B. Kratzer

David G. Kline, MD Jay U. Howington, MD Barry A. Kriegsfeld, MD

Lewis J. Brown, MD Dr. Eleanor Metcalf Neurovascular, Inc., a Johnson & Johnson company, DePuy

Laurence I. Kleiner, MD Richard B. Morawetz, MD

Mary Louise Sanderson

Edward H. Oldfield, MD Yale School of Medicine

Tom Pittman, MD

Daniel Vernon White, MD

Lawrence Pitts, MD Praveen V. Mummaneni, MD

Eugene Pugatch, MD

Donald Harry Frank, MD, FACS

David Roberts, MD

Kendall H. Lee, MD, PhD

Regina Rogers Mark J. Kubala, MD

John A. Sandin III. MD

Dorothea M. Sandin

Richard L. Saunders, MD

Robert E. Harbaugh, MD, FACS

Anthony F. Susen, MD

Albert J. Camma, MD, FACS

Think First National Injury Prevention Foundation

David Cavanaugh, MD

Martin H. Weiss, MD, FACS

Michele S. Gregory

H. Richard Winn, MD

Guy M. McKhann II, MD

Memorials

The following gifts were made in memory of friends, family members, and colleagues.

Hank Allen Dan Bowman

John V. Roach

Ron Rohlicek

George Rosso Michael Stell

Roger Countee, MD

Edward Von der Schmidt III, MD

Patrick Cozza Sr. Gail I Rosseau MD

Dr. George Ehni

Jay M. Barrash, MD, FACS

Sharon Emch Willard Emch, MD Brian Gangloff

Beth A. Seuferer Ruth Gilford

Jacques N. Farkas, MD, FACS

Marcy Glick-Schwartz

Roberta P. Glick, MD

Cindy Gough

John Trice

Julian T. Hoff, MD

Laurie Lynn Ackerman, MD

Terri L. Bruce

Michele S. Gregory

Robert G. Grossman, MD

Michigan Brain & Spine Institute

Katie Orrico, JD

Morris Wade Pulliam, MD

Scott A. Shapiro, MD

Randall W. Smith, MD

Caryl Holte Hollowell Denise Angerstein

Mrs. Dedy Andree Girault Kildare

Michel W. Andre Kildare, MD

Dr. Dennis Kopanicky

Anthony De Marco

Lval Leibrock, MD

Gary M. Bloomgarden, MD

Leonard I. Malis, MD

Marc A. Letellier, MD

Hiroshi Nakagawa, MD

Luella T. McKinney

Daniel L. McKinney, MD

Angela N. Miranda MD

Christopher M. Loftus, MD, FACS

Joel A. Feigenbaum, MD

John R. Russell, MD

Julius M. Goodman, MD

Arthur O. Schilp

A. John Popp, MD

Ella Schwab

Joni L. Shulman

Adele Strauss

Richard Charles Strauss,

MD FACS

Amy Thompson

B. Gregory Thompson Jr., MD

Dr. Kevin Van Roern

Benjamin B. Lecompte III, MD

A. Earl Walker, MD

Agnes Walker

Fatma & Hasan Yildizhan

Ahmet Yildizhan, MD

2007 Financial Summary

A sound fiscal foundation is integral to the success of any organization, and this year, the AANS continued its path of financial growth. Especially noteworthy is that this is the sixth consecutive year in which the AANS posted a positive operational bottom line. Net operating income of \$619,800 coupled with an additional \$1,192,000 in interest and investment equated to a final total net income of \$1,812,000. The financial strength of the AANS has benefited members through an expansion of programs and services, but up front, has afforded a six-year AANS membership dues rate freeze — with dues at the same rate as billed in 2001.

In fiscal year 2007, the AANS again realized strong financial improvement. AANS leadership and staff, adept at managing resources and containing costs through an informed financial management process, helped bring this to fruition. Also integral to the financial success was the astute insight the Finance Committee provided with their monthly review of financial information, discussion of nearly every line item, and decisions on appropriate investments.

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, 2006, through June 30, 2007.

Revenue

Gross revenue improved a little more than \$905,000 from fiscal year 2006. Every revenue category posted an increase from the previous year, with the exception of product sales, which showed a very small decrease.

- Revenue for the 2007 AANS Annual Meeting in Washington, D.C. finished \$220,000 ahead of the previous year. This year's meeting exceeded all expectations with a record-high 3,497 medical attendees. Aside from the stellar science, the 2007 Annual Meeting tapped into the extraordinary venues of the nation's capital and generated impressive attendance at the many social events.
- The *Journal of Neurosurgery* posted an increase in gross revenue of \$131,000. This was attributed to a \$72,000 increase in advertising sales and an increase in membership subscription revenue.

 The pie chart (Page 19) indicates the various sources of income. The AANS' reliance on membership dues continues to decrease. It went from 14.3 percent of gross revenue in fiscal year 2006 down to 13.5 percent in fiscal year 2007.

Expenses

Overall gross expenses increased by nearly \$421,000. On a positive note, three areas posted a decrease in expenses in fiscal year 2007 compared to only one the previous year: the AANS *Bulletin*, governance, and committees.

- The 2007 AANS Annual Meeting in Washington, D.C. cost more than the 2006 meeting in San Francisco, with a \$164,000 increase in expenses. The record-high attendance, an increase in the number of special receptions and events, and unanticipated transportation costs were the primary reasons for this increase.
- The *Journal of Neurosurgery* continued to build on its strengths, producing a remarkable 36 print journals and 12 online journals per year. With such production, there were associated expenses, equating in fiscal year 2007 to a \$155,000 increase. A portion of this increase was attributed to continued staff reorganization and considerable infrastructure improvements.
- The core values of the AANS are embodied in its many committees, which carry out the mission and strategic plan of the organization. In fiscal year 2007, these committees oversaw an impressive number of programs while containing costs, posting an overall decrease of \$75,000 from the previous year.
- Costs of operating the AANS headquarters office were kept level with fiscal year 2006 totals. This was achieved through maintaining the same number of staff and applying the rigorous financial oversight afforded to all AANS programs to general office administration.

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



Assets

Cash and Investments	12,564,605
Other Current Assets	3,124,851
Property and Equipment, net	3,468,351
Other Assets	637,172
TOTAL ASSETS	\$19,794,979
Liabilities and Equity	
LIABILITIES	

Accounts Payable	3,189,930
Deferred Revenues	3,536,493
TOTAL LIABILITIES	\$6,726,423

EQUITY

11,256,951
1,811,605
\$13,068,556

TOTAL LIABILITIES AND EQUITY \$19,794,979

Income Statement

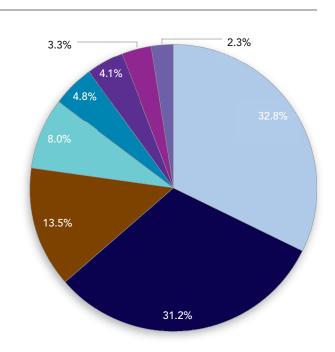
REVENUE

Operating Revenue	16,443,764
Operating Expenses	15,823,948
NET OPERATING INCOME (LOSS)	\$619,816

Non-Operating Activities	1,191,789
NET INCOME (LOSS)	\$1,811,605

FY2007 Sources of Revenue

Annual Meeting	32.8%
Journal of Neurosurgery	31.2%
Membership Dues	13.5%
Professional Development	8.0%
Contract Services	4.8%
Products & Services	4.1%
Joint Programs	3.3%
Other	2.3%



2006-2007 Leadership

Officers

Donald O. Quest, MD, President
Jon H. Robertson, MD, President-Elect
Arthur L. Day, MD, FACS, Vice-President
James T. Rutka, MD, PhD, FRCS, Secretary
James R. Bean, MD, Treasurer
Fremont P. Wirth, MD,
Immediate Past President

Directors-at-Large

William T. Couldwell, MD, PhD Robert E. Harbaugh, MD, FACS Christopher M. Loftus, MD, FACS Warren R. Selman, MD Troy M. Tippett, MD

Regional Directors

Jeffrey W. Cozzens, MD R. Patrick Jacob, MD Stephen T. Onesti, MD, FACS Edie E. Zusman, MD, FACS

Historian

Eugene S. Flamm, MD

Ex-Officio

Rick Abbott, MD
P. David Adelson, MD, FACS
Charles L. Branch Jr., MD
Lawrence S. Chin, MD, FACS
Fernando G. Diaz, MD, PhD
Dennis E. McDonnell, MD
Richard K. Osenbach, MD
Setti S. Rengachary, MD
Michael Schulder, MD
B. Gregory Thompson Jr., MD
Ronald E. Warnick, MD

Liaisons

Douglas S. Kondziolka, MD, FRCSC, FACS Isabelle M. Germano, MD, FACS H. Derek Fewer, MD

AANS Executive Office

5550 Meadowbrook Drive Rolling Meadows, IL 60008-3852 Phone: (847) 378-0500

Toll-free: (888) 566-AANS (2267)

Fax: (847) 378-0600 E-mail: info@AANS.org www.AANS.org

www.NeurosurgeryToday.org

Executive Director

Thomas A. Marshall

Deputy Executive Director

Ronald W. Engelbreit, CPA

Associate Executive Director-Member Services

Kathleen T. Craig

Associate Executive Director-Education & Meetings

Joni L. Shulman

Departments

Accounting
Communications
Development
Education
Governance
Information Services
Journal of Neurosurgery

Marketing
Meeting Services
Member Services
Washington Office

AANS Executive Office

5550 Meadowbrook Drive Rolling Meadows, IL 60008-3852 NONPROFIT ORG. U.S. POSTAGE **PAID**

American Association of Neurological Surgeons