History in the making: the AANS celebrates its Diamond Jubilee

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The 75th anniversary of the founding of the organization that has become the American Association of Neurological Surgeons (AANS) is an opportune time to reflect on the evolution of the field of neurological surgery as well as the evolution of the Association.

The Harvey Cushing Society, named for the founder of American neurosurgery and one of the world’s great neurosurgeons, was organized as a club by a small number of like-minded surgeons. These valiant and indomitable individuals came together to develop a new specialty of medicine in the face of inhospitable, nearly insurmountable odds. None of them could envision the astonishing developments in medicine that would change neurosurgery from a desperate undertaking to one that provides patients with definitive cures or long-lasting and welcome palliation. In 1931, such advances as contemporary understanding of molecular biology and genetics, spine instrumentation, implantable device technology, innovative imaging modalities, modern pharmaceuticals, and chemotherapy were simply unimaginable.

Along with the growth of neurosurgery as a specialty, the AANS has flourished since its inception 75 years ago and has developed into a body which encompasses the full spectrum of neurological surgery and is involved with every aspect of the field.

The AANS is the organization that speaks for all of neurosurgery. It has encouraged the development of all the subspecialty groups within the field and maintains them under its aegis, unifying all aspects of the specialty. It fosters collegial relationships with the other professional organizations within neurological surgery, with the house of surgery in general, and indeed with all of medicine. Communication and cooperation are essential among all these various entities and are the foundation on which the AANS relies in its advocacy role for neurosurgery to the public, the medical community in general, the government, the media, and third party payers.

Devotion to patients is the mainspring of the neurosurgical profession. The AANS therefore is devoted to advancing the specialty in order to promote the highest quality of patient care. The means for fulfilling this goal are multifaceted, refined, and often complex.

Neurosurgeons are recognized as the preeminent providers of quality care to patients with surgical disorders that affect the nervous system. Among the many reasons underlying achievement of this esteem are the intensive training and ongoing education required. The AANS helps meet these stringent requisites by providing a multitude of educational opportunities.

Among these opportunities are AANS-produced web-based offerings, publications, and regional meetings designed to fulfill Maintenance of Certification requirements recently developed by the American Board of Neurological Surgery. An Internet database system is under development to provide members with a sophisticated and comprehensive vehicle for operative data collection, practice assessment and continuing medical education. Online compilation of continuing medical educational credits is provided for all members and, in conjunction with the Society of Neurological Surgeons, Internet-based learning modules have been developed to augment resident and member education.

The AANS is its members’ principal resource for professional interaction regarding the ever-expanding scope of neurosurgical care, new technologies, and treatments of neurological disorders. The AANS’ numerous meetings and periodicals—the Bulletin, the Journal of Neurosurgery, JNS Spine, JNS Pediatrics, and Neurosurgical Focus—and various Internet-based assets all provide practice information and educational resources to members.

Research is the key to the future of neurological surgery, as the AANS officially recognized through the establishment of the Neurosurgery Research and Education Foundation in 1981. The NREF has since grown dramatically in its ability to provide financial support to young neurosurgical investigators, helping them to develop their careers in clinical and basic research.

Continuous outreach to the international community has increased interaction between the AANS and various international neurological societies, including the World Federation of Neurosurgical Societies. The AANS annual meeting is truly an international event with a multitude of attendees from around the globe as well as many scientific offerings presented by international members.

The AANS membership is representative of the entire scope of neurosurgery with major efforts to enhance the
role of young neurosurgeons, foster the participation of resident members, and encourage medical student involvement in AANS activities, especially the annual meeting. Diversification of the neurological workforce is a major goal. Motivating more women to enter the field is among expanded efforts to ensure that the best and brightest medical students enter neurosurgery.

The AANS has turned its attention to professional liability in answer to pressures originating within the greater society. One of the critical issues in recent years is the unfavorable professional liability climate and its increasing costs and burdens that affect all neurosurgeons. The AANS has responded in part through expansion of its Professional Conduct Program, which was established in 1982. The program endeavors to ensure that the Rules for Expert Opinion Services and the Code of Ethics promulgated by the AANS are adhered to, and that honest, informed, and unbiased testimony is provided during legal proceedings.

The AANS has worked for professional liability reform through the Washington Committee. Formed in 1975 in recognition that interaction with the federal government would need to become a major activity of the AANS, this committee spearheads neurosurgery’s advocacy not only for professional liability reform but also regarding physician payment, quality improvement and patient safety initiatives that require careful analysis coupled with vigorous and knowledgeable advocacy. A new political action committee for neurosurgery also has been formed in order to further the legislative goals of neurosurgery and ensure the best care for patients.

An example of how the many facets of the AANS work together to incorporate new technologies and advance the profession can be seen with stereotactic radiosurgery, a therapy that was unimaginable in 1931. During the AANS 75th year, the AANS and appropriate stakeholders agreed on a contemporary, comprehensive definition of SRS. The definition recognizes SRS as a distinct discipline that utilizes externally generated ionizing radiation to inactivate or eradicate defined targets in the head and spine non-invasively. It also calls for performance of SRS by a multidisciplinary team to ensure quality patient care. The AANS published the definition as a position statement and spearheaded advocacy efforts to encourage Medicare and third party payers to adopt it. The AANS further supports neurosurgeons subspecializing in SRS through its support of the AANS/CNS Section on Stereotactic and Functional Neurosurgery and through the many educational opportunities the AANS offers.

Examples such as this suggest that when today’s neurosurgeons ask questions which our progeny 75 years hence might find rudimentary, simplistic, and naive, such as where innovations in biomechanical prostheses or in stem cell research might lead us, we can feel confident that whatever transpires, the AANS will adapt appropriately to lead neurosurgery in incorporating advances and best practices that achieve quality patient care.

This ability to adapt is rooted not only in a clear idea of AANS mission and vision, but also in the organization’s infrastructure. The democratically elected AANS Board of Directors represents the broad spectrum of neurological practice. Directors are assigned Divisions for which they are responsible, reflecting the organization’s complexity: Operations & Planning, Communications, Practice, Education, and Science. In addition, more than 400 neurosurgeons volunteer at the committee level, helping to ensure that issues important to their colleagues, wherever they may practice, are addressed.

The AANS executive office and the Washington office are staffed by dedicated and knowledgeable professionals who provide the infrastructure for the many complex activities of the organization and help guide the organization in a business-like fashion.

Leadership and staff together have developed broad-based revenue sources to fund the ever-enlarging matrix of AANS activities so that member benefits can be enhanced without increasing individual members’ financial burden. Revenue enhancement has been achieved through the annual meeting, courses, and publication revenues, along with corporate donations. The strong financial position that the AANS maintains constitutes a firm position from which the AANS can achieve its vision, embodied in its host of initiatives.

“Prediction is very difficult, especially about the future,” an aphorism attributed to Nobel laureate physicist Niels Bohr (although it sounds more like an observation of “baseball philosopher” Yogi Berra). This maxim certainly applies to neurosurgery and to the AANS. Exciting possibilities lie just ahead and the capacity of the AANS to adapt and to lead under changing and challenging circumstances bodes well for neurosurgery’s future. The advent of nanotechnology, only an inchoate spark at the time of the AANS 50th anniversary, now has ignited great excitement in the biological sciences because of its fabulous potential to revolutionize diagnostic and therapeutic modalities. Fantastic advances in diagnostic sensitivity and specificity appear possible along with highly precise and focused medical intervention at the molecular level for curing disease and repairing tissue. Terminology such as nanoparticles, nanotubes, nanowires, quantum dots, fullerenes, femtosecond lasers, and concepts such as microelectromechanical systems, molecular manufacturing, quantum computers have the ring of science fiction in the present day but very likely will be part of the neurological lexicon at the time of the AANS 100th anniversary.

The legacy of neurosurgery’s founders provides inspiration and guidance, illuminating the path as the specialty of neurosurgery faces the future with dedication and a creative spirit. This Diamond Jubilee year is one of celebration for the venerable ideals of the AANS founders which have remained unchanged since the inception of the organization. The unity, vigor, purposefulness, productivity and creativity of the AANS will continue to grow as the future unfolds.