THE DIVINE VOCATION
BUILDING ON NEUROSURGERY’S FOUNDING PRINCIPLES
The Neurosurgery Research and Education Foundation (NREF) has had a very productive year.

The NREF board of directors focused on establishing new opportunities for contributing to the foundation. We have encouraged donors to view their gifts given to the NREF as valued personal investments. The program that most exemplifies this approach to giving is the Honor Your Mentor program, in which donations honor individuals who have personally impacted the lives of fund donors. The monies collected within these named funds are used to support the mentor’s field of interest or specialty by establishing grants or fellowships within the identified areas.

Beyond Honor Your Mentor, the NREF has seen growth among our Cushing Circle-level membership, a level of giving that was celebrated this year at a reception during the 2015 AANS Annual Scientific Meeting and thanked with a private suite, available to members during the meeting.

Additionally, there was an increase in the money provided to the NREF through the annual Columbia Softball Tournament. Indeed, even the NREF’s private supporters contributed at levels that allow the foundation to move forward with our mission to enhance lives by advancing neurosurgical care, allowing the NREF to preserve its annual funding of Resident and Young Investigator grants and to expand the Medical Student Summer Fellowship grants to include the Rhoton Medical Student Fellowships.

Our industry partners continue to support the post-residency clinical fellowships (PRCF). The generosity of both industry and neurosurgery is allowing the planning of new international and mid-career educational courses, which will continue our mission-fulfilling efforts.

The Bagan Family Fellowship was awarded for the first time this spring. When Merwyn Bagan, MD, MPH, FAANS(L), presented the Bagan Family Fellowship, he spoke of his family’s decision to create the fund. They hoped it would set an example that would be embraced and followed by others involved in neurosurgery. As both NREF chair and donor, I hope that more members of the neurosurgical community choose to echo Bagan’s words, mission and generosity.

Those of us involved with the NREF appreciate the support of all who have helped us achieve and, indeed, exceed our goals during this past year, and we most humbly request your continuing support in coming years.

Jon H. Robertson, MD, FAANS
NREF Chair
Sometimes the requests attached to membership in the AANS can be surprising.

U.S.A. Today reached out to staff at the AANS about a program it was running for middle-school students. Seventh and 8th grade students were asked to write an essay about their career aspirations, detailing their thoughts on the professions they hoped to enter into as adults. Part of the prize for winning the essay contest included a day shadowing someone in that dreamt-about profession.

One of the winning essays, submitted by Alahji Barry, a middle schooler from Atlanta, concluded his essay with the following paragraph:

“My decision to become a neurosurgeon did not come in a moment of blinding revelation, but as a result of an interest in science. Through future experiences I will encounter, I can think of no other profession that is so fulfilling and rewarding as that of a neurosurgeon. The road to becoming a brain surgeon is necessarily a long one. But with the sufficient amount of dedication, and my strong passion to learn, I will be able to achieve my dream. In addition, I will not allow anything to interfere with the attainment of my goal.

Alahji’s goal created a slight dilemma for the contest organizers: where could they find a neurosurgeon willing to spend time with a teenager? Enter the AANS and Regis W. Haid Jr., MD, FAANS, who took time out of his busy schedule to meet with Alahji and show him the neurosurgical ropes.

“I really enjoyed meeting with Alahji, hearing about his hopes for his future and sharing some of my professional experiences with him. The founding principles of neurosurgery have always included taking time for the next generation, and, while Alahji is younger than most, his interest, inquisitiveness and intelligence created a day that was as memorable for me as I hope it was for him,” said Dr. Haid. “You don’t often get to spend the afternoon with the future. I highly recommend the experience.”
Since 1980, the Neurosurgery Research and Education Foundation (NREF) has served as a premier funder of neurosurgical research and education in North America. NREF secures nearly $1 million each year to produce preeminent training courses for neurosurgical residents, fellows and practicing surgeons. NREF provides an additional $1 million annually in research grants to help launch the careers of medical students and young surgeons.

Education Courses
Since 2006, the generous contributions of industry partners have allowed more than 1,400 senior residents, fellows and practicing surgeons to learn critical surgical skills, quantitative analysis and career planning from expert faculty from leading academic institutions across the country.

2014-2015 NREF Courses
Endovascular and Vascular Techniques for Residents
Endovascular Techniques for Fellows in collaboration with SNIS and SVIN
Exit Strategies for Chief/Senior Residents
Fundamentals in Spinal Surgery for Residents
Science of Neurosurgical Practice (Quantitative analysis for clinical trials)
Skull Base for Senior Residents
Spinal Deformity for Residents
Spinal Disorders: A Comprehensive Hands-on Course (Bangalore, India)
Stereotactic Radiosurgery for Neurosurgery and Radiation Oncology Residents

NREF: EXPANDING THE PRACTICE OF NEUROSURGERY
Clinical Fellowships

Since 2010, the NREF has supported more than 70 post-residency clinical fellowships (PRCF) at more than 25 neurosurgery training programs in North America.

Funding for post-residency fellowships is made possible by industry supporters. Applications are accepted in areas such as spine, endovascular, pediatric, stereotactic and tumor neurosurgery. PRCF awardees are independently chosen by a committee of surgeons.

The NREF gratefully recognizes corporate support for funding of the 2014-2015 PRCFs from the following organizations:

- DePuy
- Medtronic, Inc.

2014-2015 Awardees

In 2014-2015, the NREF granted funding for eight post-residency clinical fellowship programs in the area of spine. The foundation is pleased to announce the following institutions received funding:

- Cleveland Clinic Center for Spine Health
- Duke University Medical Center
- Johns Hopkins University
- Rush University
- Toronto Western Hospital
- University of California, San Francisco
- University of Miami
- University of South Florida, Tampa
The mission of the NREF is to enhance lives by advancing neurosurgical care. The NREF is dedicated to providing education to neurosurgeons at all stages of their careers, as well as funding research into new and existing neurosurgical treatments, in order to identify links between best practices and improved outcomes in patient care.

Through public donations, corporate support and donations from allied neurosurgical groups, the NREF supports endeavors that impact the lives of those suffering from epilepsy, stroke, brain tumors, spinal disorders, sports-related head injuries, lower back pain and Parkinson’s disease. Since 1980, more than $7.72 million in grant funding has been awarded to nearly 200 residents and young clinician investigators at 65 academic institutions.

NREF would like to thank the following organizations that helped support NREF Research Grants and Young Clinician Investigator Awards in fiscal year 2015:

- American Academy of Neurological Surgery
- AANS/CNS Joint Cerebrovascular Section
- AANS/CNS Joint Section on Pediatric Neurosurgery
- AANS/CNS Section on Tumors
- AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves
- Annual Neurosurgery Charity Softball Tournament sponsored by Columbia University and The New York Yankees
- Medtronic

**Research Grants and Young Clinician Investigator Awards**

**2014–2015 Research Fellows and Young Clinician Investigator Awards**

($40,000 for one year)

**Kurtis Birch, MD**

*NREF Research Fellow*

Cedars Sinai Medical Center

**Project Title:** The Role of Sleep in Memory Formation and Consolidation: A Neurophysiological Study in Humans Undergoing Invasive EEG Monitoring for Intractable Epilepsy

**Eyiyemisi Damisah, MD**

*NREF and AANS/CNS Cerebrovascular Section Research Fellow*

Yale New Haven Hospital

**Project Title:** Role of Branched Chain Amino Acids and Mitochondrial Dysfunction in Post Stroke Epileptogenesis

**Courtney Rory Goodwin, MD, PhD**

*NREF and Academy of Neurological Surgery Edward H. Oldfield, MD Research Award*

Johns Hopkins University

**Project Title:** Phospho-proteomic and Genomic Profiling of PTEN-Akt Signaling in Malignant Gliomas
Seunggu J. Han, MD  
_NREF and AANS/CNS Joint Section on Tumors Research Fellow_  
University of California, San Francisco  
**Project Title:** Impact of Honokiol in PI3 Kinase Pathway Mediated Immunoresistance in Glioma

Nelson Moussazadeh, MD  
_AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Research Fellow_  
Sloan-Kettering Cancer Center  
**Project Title:** Genomic Characterization of Spinal Metastases and Paired Primary Tumors to Identify Patterns of Spinal Tropism and Clonal Evolution

Ciaran James Powers, MD, PhD  
_NREF Young Clinician Investigator_  
The Ohio State University Wexner Medical Center  
**Project Title:** MiR-92a Sensitizes the Brain to Ischemia After Subarachnoid Hemorrhage by Down-regulating Krüppel-like Factor 2

Katie Pricola, MD  
_NREF and AANS/CNS Section of Pediatric Neurological Surgery Research Fellow_  
Massachusetts General Hospital  
**Project Title:** The Role of Axonal Guidance Factors (AGFs) in the Development of Medulloblastoma

Teresa Purzner, MD  
_NREF/Medtronic Research Fellow_  
Stanford University School of Medicine  
**Project Title:** Combining Mass Spectrometry and Development Genetics to Develop Targeted Brain Tumor Therapy

Jayesh P. Thawani, MD  
_NREF/Columbia Neurosurgery Softball Research Fellowship in Neuro-Oncology_  
University of Pennsylvania  
**Project Title:** Engineering a Nanoparticle-based Contrast Agent to Delineate Brain Tumors Both on Magnetic Resonance Imaging and in the Operating Room Using Diffuse Optical Imaging

Jessica Wilden, MD  
_NREF Young Clinician Investigator_  
Louisiana State University Health Sciences Center  
**Project Title:** The Preclinical Investigation of Deep Brain Stimulation in Intravenous Methamphetamine Abuse
SUPPORTING FUTURE NEUROSURGICAL LEADERS

Medical Student Summer Research Fellowship Program

Now in its eighth year, the NREF Medical Student Summer Research Fellowship program is designed to expose neurosurgical curriculum to first- and second-year medical students — with the hope of piquing their interest in the specialty and selecting neurosurgery when they make their decisions about residency training. The fellowship is open to medical students in the United States or Canada who have completed one or two years of medical school and wish to spend a summer working in a neurosurgical laboratory, mentored by a neurosurgical investigator sponsor who is a member of the AANS. The NREF supports up to 20 awards, with each award totaling $2,500. The 2015 Fellowship awardees:

Tej Deepak Azad  
Stanford University School of Medicine

Lawrance Chung  
Devid Geggan School of Medicine at UCLA

Harrison Farber  
Duke University Medical Center

Sameer Farooq  
New York University

Megan Hermann  
University of Texas Health Science Center San Antonio

Zachary Hopkins  
University of Utah

Dhruv Kumar Jain  
University of Toronto, Faculty of Medicine

Joseph Juliano  
University of Southern California

Michael Kader  
NYU Langone Medical Center

Jason Kirschner  
University of Rochester School of Medicine & Dentistry

Sneha Konda  
Texas A&M Health Sciences Center College of Medicine

Brandon Lucke-Wold  
West Virginia University School of Medicine

Erin Patricia McCormack  
The George Washington University School of Medicine and Health Sciences

Robert Rudy  
Harvard Medical School

Adam Russak  
University of Rochester School of Medicine & Dentistry

Sanjit Shah  
University of Cincinnati

Eugene Vaios  
Massachusetts General Hospital

Philip Yee  
Toronto Western Hospital

Jacob Stewart Young  
The University of Chicago

Yin Zhao  
University of Pittsburgh

Best 2014 MSSRF Abstract Presented at 2015 AANS Annual Scientific Meeting

Michael Zhang  
*MD Candidate, Class of 2016*  
Stanford University

Project Title: M1 Macrophages Demonstrate a Superior Phagocytic Response Against Glioblastoma Multiforme Following Anti-CD47 Treatment
William P. Van Wagenen Fellowship

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

Awarded annually since 1968, the Van Wagenen Fellowship is offered for post-residency study in a foreign country for a period of 12 months. The awardee receives a $120,000 stipend to cover the living expenses and other costs, while an additional $25,000 is awarded to the host university lab or program to help offset research, education and investigation costs for the fellowship.

The recipient of the 2015 Van Wagenen Fellowship is Lisa Anne Feldman, MD, PhD, a resident in neurological surgery at Virginia Commonwealth University.

Dr. Feldman will travel to New Zealand, where she will be hosted by the University of Auckland and Victoria University in Wellington. Under the mentorship of Mr. Edward Mee, Dr. Feldman will pursue her research topic of “Perfluorocarbons as a Novel Treatment for Radiation Necrosis.” Dr. Feldman plans to study stereotactic radiosurgery (SRS), an important treatment option for numerous neurosurgical diseases, including skull base tumors, metastatic brain tumors and arteriovenous malformations.

“I am deeply honored to be awarded the Van Wagenen Fellowship. This award will provide me the opportunity to conduct exciting neurosurgical research abroad, while also fostering long-lasting international collaborations for future research,” commented Dr. Feldman.
CORPORATE PARTNERS

Pinnacle Partners: Committed to Supporting Neurosurgery

Spanning the breadth of neurosurgical subspecialties, NREF’s Pinnacle Partners share a common corporate commitment to advancing research, education and training in neurosurgery.

The NREF gratefully acknowledges the following companies for their contributions as Pinnacle Partners in Neurosurgery in fiscal year 2015.

- Biomet, Inc.
- Brainlab, Inc.
- Carl Zeiss Meditec, Inc.
- Codman Neuro
- DePuy Synthes Companies of Johnson & Johnson
- Globus Medical, Inc.
- Integra LifeSciences
- Leica Microsystems
- Medtronic, Inc.
- Siemens Medical Solutions, USA, Inc.
- Varian Medical Systems, Inc.

NREF Corporate Leadership Council

The NREF Corporate Leadership Council is an annual forum bringing together the leaders in organized neurosurgery with key industry leaders. The mission of this gathering is to strengthen ties through a forum for discussion and collaboration on issues related to the specialty.

The NREF Corporate Leadership Council convened in Chicago on July 26, 2014. Representatives from a dozen companies were joined by members of the NREF leadership for updates on market trends, ethical and legal issues in the current health-care environment, philanthropic issues and opportunities for patient advocacy. NREF and AANS leaders presented developments in key program areas such as the NeuroPoint Alliance (NPA) and the activities of the AANS/CNS Washington Committee.
Neurosurgeons have demonstrated tremendous generosity to the profession by paying tribute to the luminaries of the specialty who helped build their careers. Once donations to a fund total $50,000 or more, the permanent Honor Your Mentor accounts generate ongoing support for a designated educational or research purpose. Currently, 18 named Honor Your Mentor funds represent nearly $700,000 received of the nearly $1,200,000 in current pledges:

**A. Leland Albright Fund**  
To support neurosurgery resident and fellow education in Africa

**Roy Bakay Fund**  
To be utilized for research in Stereotactic and Functional Neurosurgery

**Ulrich Batzdorf Fund**  
To be utilized for basic science research in spinal cord injury

**Dr Warren C. Boop Jr. Family Fund**  
To support Resident Education and Research within the department of Neurosurgery at the University of Arkansas for Medical Sciences.

**Edward S Connolly Fund**  
To be utilized for clinical outcome studies, clinical or basic science research and fellowships in spine

**Charles Drake Fund**  
To honor the memory of the late Charles Drake, Professor and Chairman Emeritus of the Department of Surgery at the University of Western Ontario.

**Stewart B. Dunsker Fund**  
To be utilized for clinical or basic science research and fellowships in spine.

**Regis W. Haid Jr. Fund**  
To be utilized for spinal clinical outcomes studies, fellowship research projects

**Charles Kuntz IV Fund**  
To be utilized for spinal clinical outcomes studies, fellowship research projects

**Sanford J. Larson Fund**  
Award for best spine research paper at the AANS Annual Scientific Meeting

**Edward R. Laws Fund**  
To support resident education and research within the Department of Neurosurgery at the Brigham and Women’s Hospital.

**Anthony Marmarou Fund**  
To support a Section on Neurotrauma named lectureship

**Andrew Parsa Fund**  
To fund a fellowship or research grant in Dr. Parsa’s name for brain tumor research

**Albert Rhoton Jr. Fund**  
To support the maintenance and future development of The Rhoton Collection and to provide funding for grants restricted for micro neuroanatomical research fellowships

**James T. Rutka Fund**  
To support the Tumor Section in its area of greatest need

**Volker K.H. Sonntag Fund**  
To be utilized for IRB clinical outcome studies, clinical or basic science research and fellowships in spine

**Philip E. Stieg Fund**  
To fund a skull base research fellowship at the Weill Cornell Medical College Department of Neurological Surgery

**Charles Tator Fund**  
To be utilized for basic science research in spinal cord injury
During his tenure as president of the AANS, Merwyn Bagan, MD, MPH, FAANS(L), made a significant donation to the Neurosurgery Research & Education Foundation (NREF). Through his close work with the organization, he was inspired to support its goals as well as to lead by example. Dr. and Mrs. Carol Bagan dedicated their donation to further the progress of the specialty, and their hope was that if one family endowed a fellowship, others would follow.

While the benefit of the Bagan’s example continues to echo through both the AANS and the NREF, the benefits of that particular gift began to bear fruit at the 2015 AANS Annual Scientific Meeting, when the inaugural Bagan Family Fellowship was conferred. The new, Young Clinician Investigator Award will exist as a permanent tribute to the Bagan’s global dedication to medicine, neurosurgery and neurosurgical education. It will further the progress of the specialty, as the award supports junior faculty who are pursuing careers as clinical investigators. Applicants must be neurosurgeons within two years of the end of their clinical training, who are full-time faculty in a teaching institution located in North America.

Dr. Bagan chose to be very involved in the selection process. Both Dr. and Mrs. Bagan enjoyed getting to know fund awardee, Amanda Muhs Saratsis, MD. Dr. Saratsis is assistant professor of neurological surgery at Northwestern University Feinberg School of Medicine and an attending physician at Ann & Robert H. Lurie Hospital of Chicago. Dr. Saratsis’ award funds her examination into the underpinnings of pediatric brainstem glioma. She hopes to identify potential therapeutic targets and biomarkers of this disease that will improve clinical diagnosis and management.

“The Bagans’ support means that applications made to the National Institutes of Health and other funding sources on behalf of this project have a better chance of being accepted. I’m hopeful that this project can really make a difference for children diagnosed with diffuse intrinsic pontine glioma (DIPG), which currently has the highest mortality rate of all pediatric solid tumors,” commented Dr. Saratsis.

Dr. Bagan’s own illustrious career began with an undergraduate degree from Dartmouth College and a medical degree from Boston University. He completed his neurosurgical training at the National Institutes of Health and The Johns Hopkins Hospital. He was in private practice until 1993, and in 1995, Dr. Bagan received a master’s degree in public health from Boston University School of Public Health.

From 1995 to 2000, the Bagans lived in Nepal, and furthered the specialty of neurosurgery in that country. Dr. Bagan worked as a volunteer at the Tribhuvan University Teaching Hospital (TUTH) and was named visiting professor at the Tribhuvan University Institute of Medicine’s department of surgery in 1997. He established a neurosurgical unit there, and trained two general surgeons to become neurosurgeons. Dr. Bagan was instrumental in obtaining more than $1 million in medical equipment for the hospital. In recognition of his contributions, his Majesty King Birendra Bir Bikram Shah Dev of Nepal presented Dr. Bagan with the Suprabal Gorkha Dakshina Bahu Award.

In honor of his accomplishments and outstanding service to the development of neurosurgery and care of needy patients in Nepal, the AANS honored Dr. Bagan with the 2000 Humanitarian Award.

“The idea was that if one family-endowed fellowship was created, others would follow.”

Merwyn Bagan, MD, MPH, FAANS(L)
OUR DONORS: LEGACIES OF PHILANTHROPY

Cushing Circle of Giving

The Cushing Circle is comprised of philanthropists who are passionate about helping patients through the specialty of neurosurgery by supporting neurosurgical research, education and outcome studies. Members demonstrate this passion with cumulative (lifetime) giving of $25,000 or more.

The NREF is grateful to the following generous individuals and groups who comprise the NREF Cushing Circle of Giving:

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Western Neurosurgical Society
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The board of directors of the Neurosurgery Research and Education Foundation (NREF) is grateful to the many individuals, groups, medical practices, corporations and neurosurgeon members who offered their generous support to the NREF from July 1, 2014, through June 30, 2015.

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Jason M. Schwab, MD, FAANS
Daniel M. Scibba, MD, FAANS
Daniel E. Spitzer, MD, FAANS(L)
Patrick Alexander Sugrue, MD
Dennis A. Turner, MD, FAANS
G. Alexander West, MD, PhD, FAANS
Eric J. Woodard, MD, FAANS
Tributes
The following contributions were made in honor of colleagues, family members and friends:

Stephen Bloomfield, MD, FAANS, in honor of Volker Sonntag, MD, FAANS(L)
Michael J. Link, MD, FAANS, in honor of Albert L. Rhoton, MD, FAANS(L)
Catherine Mazzola, MD, FAANS, in honor of A. Leland Albright, MD, FAANS(L)
L. Madison Michael II, MD, FAANS, in honor of Thoralf M. Sundt, MD
Lynn J. Robbins, MD, FAANS, in honor of Kenneth R. Smith Jr., MD
Rhonda and Brian Schwartz in recognition of Dana Tessler’s Bat Mitzvah
Ann R. Stroink, MD, FAANS, in honor of Thoralf M. Sundt, MD
Brian R. Subach, MD, FAANS, in honor of Regis W. Haid Jr., MD, FAANS
Drs. Shelly D. Timmons and Russell A. Carter in honor of Morris W. Ray, MD, FAANS(L)
Drs. Shelly D. Timmons and Russell A. Carter in honor of Jon H. Robertson, MD, FAANS(L)
Dr. and Mrs. John A. Wilson in honor of William Shucart, MD, FAANS(L)
Ahmet Yildizhan, MD, in honor of Fatma Yildizhan and Hasan Yildizhan

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

Karen and Norman Alterman in memory of Herbert M. Oestreich, MD, FAANS(L)
Leanna Burns in memory of Mary Kay Dudas
The Clifford Family Charitable Gift Fund in memory of Robert Haney, MD, FAANS; Joseph Nadell, MD, FAANS; and Edward Connolly, MD, FAANS
Mickey and Steven Frankel in memory of Herbert M. Oestreich, MD, FAANS(L)
Mr. and Mrs. Harold Friedman in memory of Herbert M. Oestreich, MD, FAANS(L)
Dr. and Mrs. James Golub in memory of Herbert M. Oestreich, MD, FAANS(L)
Ruth B. Greer in memory of Herbert M. Oestreich, MD, FAANS(L)
Regis W. Haid Jr., MD, FAANS, in memory James Meade Bicknell
Peter E. Konrad, MD, PhD, FAANS, in memory of Roy Bakay, MD, FAANS
Marvin C. Korengold in memory of Hugo V. Rizzoli, MD
Betty A. Landes in memory of Herbert M. Oestreich, MD, FAANS(L)
Thomas A. Lansen, MD, FAANS(L), in memory of Herbert M. Oestreich, MD, FAANS(L)
Eunice C. Laughlin in memory of Herbert M. Oestreich, MD, FAANS(L)
Angelina Lippert in memory of Herbert M. Oestreich, MD, FAANS(L)
Sylvia and Leonard Marx Jr. in memory of Herbert M. Oestreich, MD, FAANS(L)
Israel Melamed, MD, in memory of Axel Perneczky, MD, PhD
Bob and Debra Miller in memory of Herbert M. Oestreich, MD, FAANS(L)
David A. Oestreich in memory of Herbert M. Oestreich, MD, FAANS(L)
Joan E. Oestreich in memory of Herbert M. Oestreich, MD, FAANS(L)
Joanne Oestreich in memory of Herbert M. Oestreich, MD, FAANS(L)
Joyce Oestreich in memory of Herbert M. Oestreich, MD, FAANS(L)
Friends and Colleagues at OrthoNet in memory of Herbert M. Oestreich, MD, FAANS(L)
Mr. and Mrs. Raymond Osinoff in memory of Herbert M. Oestreich, MD, FAANS(L)
Princeton Brain & Spine in memory of Brittany Maynard
Drs. Shelly D. Timmons and Russell A. Carter in memory of Reverend Joel L. Bensema
Drs. Shelly D. Timmons and Russell A. Carter in memory of Allen S. Boyd Jr., MD, FAANS(L)
Drs. Shelly D. Timmons and Russell A. Carter in memory of Jerry Engelberg, MD, FAANS(L)
Drs. Shelly D. Timmons and Russell A. Carter in memory of Marshall J. and Virginia L. Fox
Drs. Shelly D. Timmons and Russell A. Carter in memory of Larry R. and Veronica L. Laird
CORPORATE AND INSTITUTIONAL GIVING
2014–2015

AANS/CNS Cerebrovascular Section
AANS/CNS Pediatric Section
AANS/CNS Spine/Peripheral Nerve Section
AANS/CNS Tumor Section
Aesculap
American Academy of Neurological Surgery
American Society for Stereotactic & Functional Neurosurgery
AOSpine North America
Biomet
Brainlab
Brigham & Women’s Hospital
Carl Zeiss Meditec, Inc.
Checkpoint Surgical, LLC
Codman Neuro, a Johnson & Johnson Company
Columbia University
Covidien
DePuy Synthes, a Johnson & Johnson Company
Edge Therapeutics, Inc.
Elekta
Elsevier Ltd
George Shareholder Communications Canada Inc.
Globus Medical
Integra Foundation
Integra LifeSciences
International Business Machines
K2M
Karl Storz
Kirwan Surgical Products LLC
KLS—Martin, LP
Leica Microsystems
Mayfield Clinic
Medical Center Fund of Cincinnati
Medtronic Inc.
Medtronic Sofamor Danek
MicroVention, Inc.
Mizuho America
Novocure
NuVasive, Inc.
Paradigm Spine
Pennsylvania Neurosurgical Society
Penumbra Inc
Princeton Brain & Spine Care, LLC
Safewire
Semmes Murphey Clinic
Siemens Healthcare
SpineNevada
Stryker
Suffern High School
Surgical Solutions
The Aramaentarium-Carl Zeiss
The Brooks Group and Associates, Inc.
Thieme Medical Publishers
Toshiba Medical Systems
Univ. of Utah Neurosurgical Residency
Varian Medical Systems
Western Neurosurgical Society
AANS AND RELATED ORGANIZATIONS
FISCAL 2015 FINANCIAL SUMMARY

The American Association of Neurological Surgeons (AANS) finished the year slightly in the black, despite an original budget that anticipated a loss in FY15. There were several contributors to the success. The 83rd AANS Annual Scientific Meeting performed better than forecast, enjoying record-breaking attendance. Despite a challenging investment environment, the AANS investments exceeded forecast. And, in anticipation of the budget challenges, management worked to reduce spending in administrative areas.

NeuroPoint Alliance (NPA), which had operated at a loss since its inception, enjoyed its’ first year of profitability, albeit a modest one. With its performance in FY15, the NPA is beginning to move into the role of financial contributor. The NPA has solidified and grown its NQOD base and moved into contract studies, such as the $3 million three-year Stereotactic Radiosurgery (SRS) Registry. Now, in addition to the AANS’ and NREF’s ongoing efforts to add value to the science of neurosurgery, the NPA is making a significant foray into the area of medical outcomes, supporting the science of practice.

The Neurosurgery Research and Education Foundation, in its second year as a stand-alone corporation, experienced a loss on its books of approximately $137,000. In great part, the loss can be attributed to the rapid expansion of the new Honor Your Mentor (HYM) fundraising initiative. Gifts to the HYM funds are restricted in nature and, therefore, are not included as a part of the NREF’s financials. A fuller picture of the NREF’s performance in FY15 reveals that the first full year of the HYM program saw pledges of nearly $1.2 million, $700,000 of which has already been collected.

This report reflects the financial statements of the AANS, the NREF and the NPA covering the period of July 1, 2014 to June 30, 2015.

While the year-end financials of the AANS, the NREF and the NPA are audited by outside auditors, this annual report is being prepared prior to a completed audit and contains unaudited final numbers. Any material differences between a published financial statement and the auditor’s report will be communicated to AANS members in AANS Neurosurgeon. Copies of the most recent audit are available to members by writing to: AANS Accounting Department, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008-3852.
## AANS AND RELATED ORGANIZATIONS
### STATEMENT OF FINANCIAL POSITION 06/30/2015

#### ASSETS 2014-2015

<table>
<thead>
<tr>
<th></th>
<th>AANS</th>
<th>NREF</th>
<th>NPA</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Investments</td>
<td>$21,162,282</td>
<td>$4,708,743</td>
<td>$167,054</td>
<td>$27,038,079</td>
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<tr>
<td>Other Current Assets</td>
<td>563,427</td>
<td>0</td>
<td>403,618</td>
<td>967,045</td>
</tr>
<tr>
<td>Property and Equipment, net</td>
<td>3,040,742</td>
<td>0</td>
<td>0</td>
<td>3,040,742</td>
</tr>
<tr>
<td>Other Assets</td>
<td>9,573,626</td>
<td>803,417</td>
<td>1,291,101</td>
<td>11,668,144</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$35,340,077</td>
<td>$5,512,160</td>
<td>$1,861,773</td>
<td>$42,714,010</td>
</tr>
</tbody>
</table>

#### LIABILITIES AND EQUITY

<table>
<thead>
<tr>
<th></th>
<th>AANS</th>
<th>NREF</th>
<th>NPA</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Payable</td>
<td>$7,592,523</td>
<td>$1,125,302</td>
<td>$1,166,663</td>
<td>$9,884,488</td>
</tr>
<tr>
<td>Deferred Revenues</td>
<td>2,706,426</td>
<td>243,000</td>
<td>863,956</td>
<td>5,778,972</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>$12,264,539</td>
<td>$1,368,302</td>
<td>$2,030,619</td>
<td>$15,663,460</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>AANS</th>
<th>NREF</th>
<th>NPA</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Net Assets</td>
<td>$22,985,544</td>
<td>$4,281,839</td>
<td>($197,050)</td>
<td>$27,070,333</td>
</tr>
<tr>
<td>Net Income</td>
<td>89,994</td>
<td>(137,981)</td>
<td>28,204</td>
<td>(19,783)</td>
</tr>
<tr>
<td><strong>TOTAL EQUITY</strong></td>
<td>$23,075,538</td>
<td>$4,143,858</td>
<td>($168,846)</td>
<td>$27,050,550</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND EQUITY</strong></td>
<td>$35,340,077</td>
<td>$5,512,160</td>
<td>$1,861,773</td>
<td>$42,714,010</td>
</tr>
</tbody>
</table>

#### AANS AND RELATED ORGANIZATIONS INCOME STATEMENT For the Year Ended 06/30/15

<table>
<thead>
<tr>
<th>Revenue</th>
<th>AANS</th>
<th>NREF</th>
<th>NPA</th>
<th>Consolidated</th>
<th>% of total revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dues/Contributions Income</td>
<td>$2,592,179</td>
<td>0</td>
<td>$4,380,638</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Annual Meeting Income</td>
<td>5,413,407</td>
<td>0</td>
<td>$5,413,407</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Publications</td>
<td>5,673,917</td>
<td>0</td>
<td>$5,673,917</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>EPM</td>
<td>1,945,783</td>
<td>0</td>
<td>$1,945,783</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Fundraising</td>
<td>0</td>
<td>$1,203,411</td>
<td>$1,203,411</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Resident &amp; Clinical Courses</td>
<td>0</td>
<td>$1,035,066</td>
<td>$1,035,066</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td>162,121</td>
<td>$48,070</td>
<td>$20,191</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>$15,787,407</td>
<td>$2,286,547</td>
<td>$586,750</td>
<td>$19,862,413</td>
<td></td>
</tr>
</tbody>
</table>

### CONSOLIDATED REVENUE SOURCES
- Dues/Contributions Income
- Annual Meeting Income
- Publications
- EPM
- Fundraising
- Resident and Clinical Courses
- Investments
AANS Mission Statement
The American Association of Neurological Surgeons (AANS) is the organization that speaks for all of neurosurgery. The AANS is dedicated to advancing the specialty of neurological surgery in order to promote the highest quality of patient care.

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

Officers
President
Robert E. Harbaugh, MD, FAANS
President-Elect
H. Hunt Batjer, MD, FAANS
Vice-President
Gail L. Rosseau, MD, FAANS
Secretary
Frederick A. Boop, MD, FAANS
Treasurer
Alex B. Valadka, MD, FAANS
Immediate Past President
William T. Couldwell, MD PhD, FAANS

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Deborah L. Benzil, MD, FAANS
E. Sander Connolly Jr., MD, FAANS
Regis W. Haid Jr., MD, FAANS
Anil Nanda, MD, MPH, FAANS
Shelly D. Timmons, MD, PhD, FAANS

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Moustapha Abou-Samra, MD, FAANS
John D. Davis, MD, FAANS
Holly S. Gilmer, MD, FAANS
N. Ross Jenkins, MD, FAANS

Historian
Michael Schulder, MD, FAANS

Ex-Officio
Aviva Abosch, MD, PhD, FAANS
Frederick G. Barker II, MD, FAANS
Brian L. Hoh, MD, FAANS
R. John Hurlbert, MD, PhD
Bruce A. Kaufman, MD, FAANS
Mark E. Linskey, MD, FAANS
Julie Georgia Pilitis, MD, FAANS
Chris A. Sloffer, MD, MBA, FAANS
Jamie S. Ullman, MD, FAANS
Stacey C. Quintero Wolfe, MD, FAANS

Liaisons
Anthony L. Asher, MD, FAANS
Jeffrey N. Bruce, MD, FAANS
Blas Ezequiel Lopez Felix, MD
Fredric B. Meyer, MD, FAANS
Daniel K. Resnick, MD, FAANS
Brian D. Toyota, MD

AANS Executive Office
Executive Director
Thomas A. Marshall
Deputy Executive Director
Kathleen T. Craig
Chief Financial Officer
Peter B. Kuhn

Associate Executive Director
Joni L. Shulman, MPH
Associate Executive Director
Alice I. Kelsey
Parliamentarian/Legal Counsel
Michael A. Chabraja, Esq

Departments
Accounting
Development
Education
Governance
Information Services
Journal of Neurosurgery
Marketing and Communications
Meeting Services
Member Services
Washington Office

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Rolling Meadows, IL 60008-3852
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