E PLURIBUS UNUM:
A PREVIEW OF THE 2011 CNS ANNUAL MEETING

SIGNIFICANT THREAT...
RAPID RESPONSE
The Congress of Neurological Surgeons and the CNS Quarterly invite you to the 2011 CNS Annual Meeting, October 1-6, in Washington, DC. We have delivered this Annual Meeting issue especially early to you, allowing you plenty of time to review prior to the Annual Meeting. And for those who have yet to make arrangements to attend – with time to register prior to the advance registration deadline.

We are fortunate to have an in-depth preview of the CNS Annual Meeting provided by the Scientific and Annual Meeting Committee chairs. Further, we dedicate an article on the contributions of our Honored Guest, Dr. H. Hunt Batjer and his many contributions to our society and organized neurosurgery as a whole. Additionally, we have three articles that highlight a few of the new courses and sessions that will be available in DC including a Special Course focusing on head injuries and concussions, our new surgical simulation Practical Course specifically for residents and a new case-based symposium, Operative NEUROSURGERY®.

In addition to the above articles on the CNS Annual Meeting, we are fortunate to have several featured articles provided by you, the CNS members. Dr. Ricardo Komotar provides a summary of the Annual Neurosurgery Charity Softball Tournament. Drs. Sabareesh Natarajan and Elad Levy further discuss their new initiatives and education strategies of a case-based learning module in the CNS University. Dr. Zachary Litvack and his colleagues review the impact of a ThinkFirst community outreach had on skateboarders’ use of personal protective equipment. Dr. Peter Campbell provides an overview of the various social networking tools for physicians in his article on “Social Networking for Professionals,” while Dr. Fernando Gonzalez and his team review the rapidly evolving field of cerebrovascular (stroke) management.

In the Section News, we are fortunate to have two sections represented – the Council of State Neurosurgical Societies and the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Dr. Deborah Benzil writes about the importance of the CSNS socioeconomic fellowships, while Dr. Michael Steinmetz discusses the impact the Rapid Response Team is having facing significant threats to our field.

We do hope this issue provides a helpful review of the CNS efforts – especially in regards to the 2011 CNS Annual Meeting – and progress. We look forward to seeing you in Washington, DC!

If you have any questions or comments, you can always contact us at info@1cns.org.
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Images in Neurosurgery
On July 4, 1776 a resolution was adopted by the Continental Congress authorizing Dr. Franklin, Mr. Adams, and Mr. Jefferson to devise a seal for the United States of America. In their first report delivered on August 20, 1776 the first recommendation concerning our national seal appeared the proposal “Motto: E Pluribus Unum”. This Latin phrase was well known at the time to literate Americans as it appeared on the title page of the annual volume of Gentleman’s Magazine, which represented a collated collection of articles written throughout the year which was available to the colonialists. E Pluribus Unum’s incorporation into the great seal was felt to reflect not only the formation of one nation from the original 13 colonies but also to represent a new nation; in essence, a melting pot filled with people from many different cultures and diverse backgrounds.

The theme of the 61st Annual Meeting of the Congress of Neurological Surgeons is E Pluribus Unum: The Melting Pot of Neurosurgery. It was chosen to reflect the nature of our specialty and the challenges it faces remaining unified. With the scientific advances throughout our history, sub-specialization, and the growth of neurosurgery throughout the world, it would be easy for neurosurgery to diverge, to break up, for us to become just “spine surgeons” or “endovascular cerebrovascular surgeons” and to limit our education and understanding within a small subset of what we do on a daily basis. The CNS Annual Meeting, therefore, gives us an opportunity to come together and reflect on the broad diversity in our individual practices — the practice of neurosurgery across the specialty — and the constant evolution of the specialty not only in North America but worldwide. It provides both the opportunity to gain subspecialty specific knowledge which has direct benefits to our patients and to see and discuss with our colleagues face to face the issues challenging neurosurgery as a whole.

The culture of the CNS when developing its Annual Meeting has been to provide the annual scientific program committee the freedom to take a completely new look at the meeting program year to year and to redesign it. Not only providing current educational needs, but also remaining fresh for our members and offering something “new” each year while maintaining a basic core of educational offerings for the required regulatory requirements to ensure the CME certification. Each Annual Meeting has its own “personality” derived from a variety of sources: invited speakers, special courses and new educational offerings, cutting edge General Scientific Session topics for all neurosurgeons with outreach to our international members with a focus on a particular guest society and perhaps most importantly the meeting’s honored guest. With H. Hunt Batjer, MD, as this year’s Honored Guest and the Spanish Neurosurgical Society (SENEC) as this year’s invited guest society, the CNS Annual Meeting will once again cross the broad diversity of our specialty. Dr. Batjer has years of experience as a leader in organized neurosurgery and in treating cerebrovascular disease and is going to share his experience and wisdom with us in a number of talks, two of which are titled “We Ain’t Treatin’ the Measles: Our Decisions Count” and “The Future of Neurosurgical Education: What Will Your New Partners and Your Personal Physicians Look Like?” He will undoubtedly provide insight for all. Through the excellent leadership...
of Russell Lonser, MD, Annual Meeting Chair, Ganesh Rao, MD, Scientific Program Chair, and Alan Scarrow, MD, Scientific Program Vice-Chair, the meeting program has taken shape to provide many opportunities for all neurosurgeons through the special speakers as well as new topics and sessions. Jon Meacham will be this year’s Dandy Orator and will address the topic of Leadership in a Time of Crisis. Additionally, this year’s program draws on a number of outstanding scientific and military leaders from the Washington DC area, Story C. Landis, PhD from the NIH, Peter C. Burger, MD, Professor of Pathology, Neurosurgery and Oncology and the Director of Surgical Neuropathology at Johns Hopkins and General (Ret.) Stanley McChrystal who will speak on Maintaining Expertise in a Complex and Changing Environment. As always, our meeting features a variety of new educational formats and topics such as a live surgical demonstration during the GSS, a new afternoon session featuring Operative NEUROSURGERY®, the evening dinner seminars for further CME opportunities and a special lecture combination of Charles Limb, MD, and Jeffrey Kahane together addressing the topic of Music and the Mind. Truly a wide range of educational offerings for a diverse group of surgeons.

It is into this Annual Meeting melting pot that neurosurgeons of all countries, backgrounds, interests and practices are invited not only to participate in this unique educational experience but to once again celebrate with one another the one specialty of neurosurgery.

Finally, there is immense value in a united specialty to provide a stronger voice in Washington, DC for our patients for regulatory, access, and clinical care issues. This year, I have had the privilege of working with both Dr. Jim Rutka and Dr. Paul McCormick, both AANS presidents. Although we are a specialty which is represented by two national organizations, there has been a spirit of cooperation that is truly reflected by E Pluribus Unum. I would like to thank all of you for the opportunity to serve you as President this year. It has truly been an honor and privilege and an experience that I will always remember and cherish. I look forward to seeing and celebrating with you at the 61st Annual Meeting of the Congress of Neurological Surgeons in Washington, DC, October 1-6, 2011.

> THE CNS ANNUAL MEETING, THEREFORE, GIVES US AN OPPORTUNITY TO COME TOGETHER AND REFLECT ON THE BROAD DIVERSITY IN OUR INDIVIDUAL PRACTICES — THE PRACTICE OF NEUROSURGERY ACROSS THE SPECIALTY — AND THE CONSTANT EVOLUTION OF THE SPECIALTY NOT ONLY IN NORTH AMERICA BUT WORLDWIDE. <
The 61st Annual Meeting of the Congress of Neurological Surgeons (CNS) will be held in Washington, DC, October 1-6, 2011 at the Walter E. Washington Convention Center. The CNS is proud to co-host the meeting with our international partner, the Spanish Neurosurgical Society (SENEC). Apropos the setting, the theme of this year’s meeting, E Pluribus Unum (Out of many, one), engenders a spirit of cohesion and unity among our international specialty members. The 2011 Annual Meeting program will bring together meeting attendees to explore the latest advances in the various facets of neurological surgery.

Practical Courses
Twenty-nine Practical Courses were developed by Co-Chairs Ashok Asthagiri, MD, and Vinay Deshmukh, MD, in conjunction with the Practical Course Directors. These courses, from the popular 3-D Anatomy courses led by Albert Rhoton, Jr., MD, to the new simulation and NINDS workshop courses for residents, cover each neurosurgical subspecialty, research, education and emerging technologies.

General Scientific Sessions (GSS)
GSS Co-Chairs George Jallo, MD, and Michael Wang, MD, have crafted a series of spectacular scientific sessions throughout the week, each featuring presentations by luminaries in neurosurgery on the latest scientific breakthroughs in their respective fields. The Annual Meeting kicks off with the Sunday afternoon Opening Session (4:30 to 6:00 PM), setting the stage for the weekday GSSs. The Opening Session features a presentation by Albert Rhoton, Jr., MD, on Striving to Optimize Outcome: The Anatomic Foundation of Neurological Surgery, Special Lecturer Gerald Imber, MD, author of Genius on the Edge: The Bizarre Double Life of William Halsted, and a presentation by the John Thompson History of Medicine Lecturer, General (Retired) Stanley McChrystal, on Maintaining Expertise in a Complex and Changing Environment.

The Monday session features talks by CNS President Christopher Getch, MD and a 3-D presentation by Honored Guest H. Hunt Batjer, MD, entitled, Red Cerebral Veins - The Science, The Art, and The Craft. Special Lecturer, National Football League (NFL) Commissioner, Roger Goodell, will speak about the league’s ongoing efforts to decrease the incidence and enhance the management of concussion in football. The 2011 Dandy Orator, Jon Meacham, a Pulitzer Prize winning author and former editor of Newsweek, will speak on Leadership in a Time of Crisis.

Tuesday morning features talks by world-class neurosurgeons, including SENECC President, Miguel Manrique, and for the first time ever, a live surgical demonstration (carotid stenting) will be included in the GSS. Honored Guest H. Hunt Batjer, MD, will deliver a 3-D presentation on surgical complications entitled, Overcoming a Bad Outcome: Thoughts from a Colleague. An exciting Music and the Mind Symposium (10:30 to 11:30 AM) includes a talk by head and neck surgeon and musician, Charles Limb, MD, on music’s effect on
NINDS Workshop

Because of the many challenges associated with balancing a research career and clinical neurosurgery, the National Institute for Neurological Disorders and Stroke (NINDS) has partnered with the Congress of Neurological Surgeons (CNS) to provide a Workshop on Grant Writing and Career Development (PC01). This practical course will remain complimentary and is being co-directed by E. Antonio Chiocca, MD, Professor and Chairman at Ohio State University Department of Neurosurgery and Stephen Korn, PhD, Director of Training and Career Development for NIH/NINDS. Course faculty will include seasoned neurosurgery and neurology researchers, new neurosurgery and neurology investigators who have successfully transitioned to career development grants and beyond, and senior NINDS staff. The workshop will focus on how to obtain funds for your research career and how to successfully navigate a dual career as both clinician and researcher. The morning program will be limited by invitation to NINDS R25 grantees and selected Neurosurgery residents. The afternoon program, which includes both didactic sessions and small group discussion/mentoring sessions, is open to all interested residents, fellows and junior faculty (established faculty are also welcome, but the program is directed at junior investigators). There will also be opportunity for networking and individual discussion. Participants are encouraged to bring their own grants-in-progress to this session. Faculty who have successfully obtained funding from the National Institutes of Health (NIH) at different stages of their careers and NIH study section reviewers will review these grants and provide individual instruction. At the conclusion of this session, participants will have gained significant insight into how to write successful grant applications, and how to structure a career to succeed in combining clinical and research efforts. A reception for all participants and faculty will immediately follow the grant writing workshop.

The Wednesday session offers a variety of lectures by leading neurosurgeons, neurologists and neuroscientists. Special Lecturer Lee Hochberg, MD, PhD, lead investigator of two clinical trials for BrainGate, will discuss Seeking to Restore Function: Human-Robotic Interface. Special Lecturer Colonel Geoffrey Ling, MD, PhD, an expert on battlefield head injury and prosthetic development, presents the latest developments in managing injury and rehabilitation for our soldiers returning from war. Honored Guest H. Hunt Batjer, MD, addresses emerging issues in resident training with Honoring Our Public Responsibility: Creating Milestone and Matrix Based Training in an Era of Duty Hour Restrictions. The session also features Julian T. Hoff Lecturer, Frank Deford, a world-renowned sports writer whose work has been featured on HBO’s Real Sports with Bryant Gumbel, National Public Radio (NPR) and Sports Illustrated.

Thursday offers two new sessions on controversial topics in tumor and spine surgery. The first focuses on the advantages and disadvantages of maximizing surgical resection for high-grade gliomas, and the use of surgical adjuncts, such as intraoperative MRI and fluorescence-guided resection, to aid in surgical resection. The second evaluates the utility of arthroplasty for the treatment of cervical spine disease.

Luncheon Seminars

Co-Chairs, Costas Hadjipanayis, MD, and Odette Harris, MD have developed a tremendous lineup of Luncheon Seminars with the essential input of expert moderators and faculty, and feedback from prior attendees. These seminars cover emerging advances from Contemporary Management of Traumatic Spine & Spinal Cord Injury to Hematology and Coagulation for Neurosurgeons: Dangers and Solutions.

Original Science Program

The Original Science Program, featuring the “Neurosurgical Forum” and “Oral Presentation” sessions, has been expanded for 2011 under the direction of Co-Chairs James Harrop, MD, and Jason Sheehan, MD. With more oral presentations than ever, Oral Presentations from each subspecialty and the Council of State Neurosurgical Societies (CSNS) will be presented on Monday afternoon, followed by a new multidisciplinary session on Wednesday.

Jon Meacham, Pulitzer Prize winning author and former editor of Newsweek
Monday, October 3, 10:55 AM
Consensus Sessions
Co-Chairs John Boockvar, MD, and Elad Levy, MD, have designed two interactive Consensus Sessions for the meeting. As always, these sessions allow audience members to weigh in, via hand-held devices, on timely and controversial topics that confront all neurosurgeons. Consensus Session I, Treatment of Metastatic Brain Tumors: What is the Standard of Care?, on Monday afternoon covers the roles of radiosurgery and surgery in metastatic disease.

Special Courses
Special Course Co-Chairs Aviva Abosch, MD, and Bernard Bendok, MD, have worked with course directors and faculty to develop two outstanding Special Courses. Special Course I, Concussion: A Perfect Storm and the Role of the National Football League, focuses on sports-related concussion with experts Margot Putukian, MD, Mitchel S. Berger, MD, H. Hunt Batjer, MD, and Richard G. Ellenbogen, MD (see page 10 for more information). Special Course II, Guidelines and Clinical Evidence Update, presents the latest evidence-based data to direct care for various clinical scenarios in functional, spine, vascular and tumor neurosurgery.

Dinner Seminars
Based on the overwhelming success and positive feedback from last year’s Dinner Seminars, we have expanded our offering. Co-Chairs James Liu, MD, Zoher Ghogowala, MD, James Harrop, MD, and Ashwini Sharan, MD, have designed four Dinner Seminars on Tuesday and Wednesday evenings covering Low-Grade Gliomas, Controversies in the Treatment of Cervical Spondylotic Myelopathy, Current Management Strategies for Metastatic Spine Tumors and Cervical and Lumbar Arthroplasty. The Dinner Seminars will take place at four of DC’s finest restaurants with world-class experts discussing various viewpoints related to these timely and critical issues.

Operative Technique Symposia
To further enhance the technique focused sessions from past meetings, the CNS will debut a new live surgery offering and two new surgical technique video symposia. Our live surgery debut during the Tuesday GSS features a live carotid stenting procedure, Unyielding Progress: Carotid Stenting, by Elad I. Levy, MD, and L. Nelson Hopkins, III, MD. Monday afternoon features a new high-definition 3-D video demonstration of surgical management of complex intracranial aneurysm cases, The Art of Managing Complex Cranial Cases by Aaron Cohen-Gadol, MD, William T. Couldwell, MD, and Duke Samson, MD. On Tuesday afternoon, we are honored to have Nelson Oyesiku, MD, Editor-in-Chief of NEUROSURGERY®, kick off Operative NEUROSURGERY®, a session featuring select operative technique videos presented by authors that published a description of their technique in Operative Neurosurgery during the past year (see page 11 for more information).

See You at the 2011 CNS Annual Meeting!
While we are certain that the scientific offerings will be of interest to the members, we also want attendees to enjoy the locale. Washington, DC, offers a unique opportunity for the whole family, boasting some of the most important monuments and museums in the United States. We have intentionally left ample time, particularly on Tuesday and Wednesday afternoons, for attendees to take in the sights. We look forward to seeing you in Washington, DC, October 1-6!
One of the greatest honors that the Congress of Neurological Surgeons (CNS) can bestow is that of the CNS Annual Meeting Honored Guest. This year we are pleased to continue the tradition of excellence with H. Hunt Batjer, MD as our Honored Guest.

It is fitting that Dr. Batjer was born the year the Congress of Neurological Surgeons was founded (1951) in Burlington, Vermont. His dedication, commitment and focus was exemplified at an early age, not only academically but also on the athletic field. In high school he was an active member of the varsity basketball and baseball teams. He excelled as a left-handed pitcher and was drafted by the Baltimore Orioles.

He completed college at the University of Texas and then went onto attend the University of Texas Southwestern Medical School in Dallas. In 1977, he graduated with a doctorate of medicine with Alpha Omega Alpha (AOA) designation. He continued his education in the University of Texas healthcare system by joining the Neurosurgery Department residency program under the guidance of Dr. Kemp Clark. It was during this time he became interested in cerebrovascular disorders and was mentored by Dr. Duke Samson. His interest in this disorder provoked him to seek out further international education and experience such that he pursued not one, but two fellowships – the National Hospital, Institute of Neurology at the University of London at Queen’s Square, and the University of Western Ontario under Dr. Charles Drake.

After completion of residency training and fellowships, he joined the Department of Neurological Surgery at UT Southwestern and focused his academic and clinical activities in the realm of cerebrovascular disease. He is one of the unique individuals that not only had a busy clinical practice but also a basic
laboratory studio which concentrated on cerebral ischemia and protective strategies. He was promoted to full professor of Neurological Surgery in 1993. In 1995, he took over the leadership of Northwestern University Medical School as Chief of the Division of Neurological Surgery and Director of the Neurosurgical Residency Training Program. In 1998, under his guidance and direction this division advanced to the Department of Neurological Surgery where he became the Michael J. Marchese Professor and Chairman.

Dr. Batjer has distinguished himself as a leader in academic neurosurgery, particularly concentrating on Neurosurgical education. Dr. Batjer has a long history of dedication and commitment to the Congress of Neurological Surgeons where in 1990 he was first elected to the CNS Executive Committee. During this interval he was an active member and subsequently chaired numerous committees. In 1993-4, he was the Scientific Program Chairman and Annual Meeting Chairman respectfully. In 1995 he became Secretary of the CNS and was subsequently our CNS President in 1999. During his Annual Meeting in Boston, his early mentor Duke Samson was chosen as the CNS Honored Guest.

He is presently serving his second year on the Neurosurgical Residency Review Committee of the ACGME and is past Chairman of the American Board of Neurological Surgery (ABNS). Further, his present leadership responsibilities include being Chairman of the Board of the Interurban Neurological Society and Co-Chair of the NFL Committee on Head, Neck, and Spine Injuries. This is in addition to recently completing his service as Vice President of the Neurosurgical Society of America where he has also been nominated as President-Elect. Additionally, he has been nominated for a position as Director-at-Large with the American Association of Neurological Surgeons (AANS). He is Past President of the Society of University Neurosurgeons and Past Chairman of the AANS/CNS Section on Cerebrovascular Disease. His academic pursuits and research in ischemic and hemorrhagic stroke have resulted in over 300 publications as well as five books and two major texts titled The Textbook of Neurological Surgery and Intracranial Vascular Malformations. He also serves on multiple editorial boards and is principal reviewer for Cerebrovascular Disease for NEUROSURGERY®. Dr. Batjer has served as visiting professor at over 50 medical universities worldwide and given 20 endowed lectureships.

Dr. Batjer is recognized internationally as a leading cerebrovascular surgeon, especially for complex aneurysms, vascular malformations, and brain ischemic states.
The Congress of Neurological Surgeons (CNS) is pleased to introduce an innovative symposium at the 2011 CNS Annual Meeting in Washington, DC, designed to advance resident education through a comprehensive simulation training program. This full day seminar will expose residents to a variety of common neurosurgical procedures using specially-designed neurosurgical simulators, commencing with a presentation of our CNS developed curriculum in neurosurgical simulation, which matches various simulation training techniques to ACGME core competencies.

The CNS Simulation Symposium offers more than just a look at a “new” curriculum. Participants will have the opportunity to try the simulators during three breakout sessions. These breakout sessions will feature simulators which focus on techniques in angiography, skull base approaches, spinal decompression and instrumentation, as well as neurotrauma procedures. In order to provide the best experience to the participants, we will limit the course to a total of 27 residents. This will allow an instructor to participant ratio of 1:2 and a simulator to participant ratio of 1:1.

During the sessions, selected residents will participate in validation testing to assess the efficacy of the simulation curriculum and the simulators themselves. This will help provide crucial feedback such that the symposium can be improved and adapted to the needs of the CNS and the neurosurgery community. We will present results of the validation portion of the course at the end of the session and residents will participate in a debriefing process.

Registration is open to PGY-3, PGY-4 and PGY-5 residents for participation in this course and is provided complimentary! All program directors and program chairs are invited and encouraged to attend the symposium.

If you miss the symposium on Sunday, don’t worry; the simulators will be available on the exhibit hall floor on Monday, October 3 and Tuesday, October 4 in the CNS booth. There you will be able to view our CNS designed curriculum and try your hand at the simulators.

We look forward to seeing you at the CNS Simulation Symposium!
Recently the media and general population have focused a great deal of attention on closed head injuries and concussion, fortunately with the aid and instruction of the neurosurgical community. After a significant sport induced head collision, the adages of “they will be fine” and “shake it off” are becoming less frequently heard.

Neurosurgery has been on the forefront of assessing players for closed head injuries and concussions, as well as devising appropriate return to activities criteria. The CNS is fortunate to have two leaders in this field, H. Hunt Batjer and Richard G. Ellenbogen. Together, Drs. Batjer and Ellenbogen have put together an afternoon session, Concussion: A Perfect Storm and the Role of the National Football League focusing on these specific issues.

The goals and objectives of this session are for participants to understand the effect of sports-related concussion on athletes of all ages and levels, particularly pediatric and adolescent patients. Further, the use of current guidelines for treatment and criteria for returning athletes to play after concussion will be reviewed and discussed.

The session is divided into four topics: (1) Traumatic Brain Injury: The Roles of Organized Sports and Organized Medicine presented by H. Hunt Batjer, (2) Advocacy and Education presented by Richard G. Ellenbogen, (3) On Field Assessment and Return to Play presented by Margot Putukian and (4) Former Player Health Issues and Chronic Traumatic Encephalopathy addressed by Mitchel S. Berger.

This insightful session, already included in your registration fee, will take place on Monday, October 3 from 2:00 – 3:30 PM. We look forward to your attendance and participation.
**OPERATIVE NEUROSURGERY: THE “CRAFT OF NEUROSURGERY”**

“Perhaps there are no more defining moments of who we are as neurosurgeons than those that occur in the operating room. Society has given us license to perform extraordinary tasks.”

—Michael L.J. Apuzzo, 2005

**Tuesday, October 4 2:00 - 3:30 PM**

Operative Neurosurgery has been published as a quarterly supplement of NEUROSURGERY® since January 2005 with the intent to convey the “craft of neurosurgery” (Figure 1). In print form, this peer-reviewed publication documents how master surgeons tackle the practicality of instruments, devices, techniques, procedures, and operative nuances.¹

This year at the 2011 Congress of Neurological Surgeons Annual Meeting in Washington, DC, we expand on the success of Operative NEUROSURGERY® by showcasing four master surgeons. Under the guidance of Dr. Nelson Oyesiku, Editor-and-Chief of NEUROSURGERY®, we have the honor of having Drs. John Diaz Day, Michael T. Lawton, Christopher I. Shaffrey and Garnette Sutherland narrate video of their novel neurosurgical techniques.

We look forward to what will certainly be an outstanding 90-minute session on Tuesday, October 4, 2011 from 2:00 to 3:30 PM. In this era of easily available video content, face-to-face narration conveys the personal touch that is still somehow lost in digital translation. Please join us for this excellent afternoon session — already included in your registration fee.

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**Figure 1:** Cover of recent Operative Neurosurgery a quarterly supplement to NEUROSURGERY® with the intent to convey the “craft of neurosurgery.”

**References:**

2011 CNS Annual Meeting Opening Session...

...To Strive, to Seek, to Find and Not to Yield.

On Sunday, October 2, the CNS Opening Session features powerful lectures by retired US Army General Stanley McChrystal and Gerald Imber, MD.

Make plans today to be in Washington, DC on Sunday for this dynamic session!

Sunday, October 2 ★ 4:30 – 6:00 PM

Gerald Imber, MD
Genius on the Edge: The Bizarre Double Life of Dr. William Stewart Halsted
4:56 – 5:16 PM
Dr. Gerald Imber will be signing copies of his book at 6:00 PM.

General Stanley McChrystal
Maintaining Expertise in a Complex and Changing Environment
5:40 – 6:00 PM

Immediately following the Opening Session, join your colleagues in the Walter E. Washington Convention Center Ballroom for an evening of networking at the CNS Opening Reception.

Registration is available online at www.cns.org!
Advance Registration Deadline: September 1, 2011
Stay connected with the CNS Annual Meeting Mobile Guide at http://m.cns.org!
IMPACT OF A THINKFIRST COMMUNITY OUTREACH ON SKATEBOARDERS’ USE OF PERSONAL PROTECTIVE EQUIPMENT

Each year, 1.5 million people sustain a traumatic brain injury (TBI), and one third of these results in permanent disability. In children age 0-14, TBI from all causes results in the death of 3,000, hospitalization of 29,000, and emergency evaluation of 400,000 – accounting for $56.3 billion in health care expenditures each year. Recreational sports, such as skateboarding, bicycling and in-line skating are among the leading causes of such injuries. Nearly six million children and adolescents in the United States alone use a skateboard, and nearly one million skateboard on a regular basis. Injuries related to skateboarding are responsible for over 50,000 Emergency Room visits and over 1,500 hospitalizations in the US each year. While cranial trauma makes up a small portion (20%) of injuries sustained while using a skateboard, it is the most common cause of skateboard related hospitalization, morbidity and mortality. Particularly troubling is that in this pediatric population of recreational athletes, the ultimate functional limitations acquired from TBI may not be uncovered for years after the injury.

The development of the “skate-park,” a dedicated public-use area specifically designed for complex recreational skateboarding, encourages risk-taking behavior on the part of the skateboarder, increasing the likelihood of a high-energy injury. While commercial skate parks can mandate use of safety equipment, resulting in an impressive >95% compliance, community skate parks are typically unsupervised.

ThinkFirst is a joint program of the American Association of Neurological Surgeons and Congress of Neurological Surgeons, founded in 1986 to provide academic and community outreach education for the prevention of traumatic brain and spinal cord injuries. In conjunction with ThinkFirst Oregon, and the Department of Public Parks, we designed a one-day event, “Skateboard Fest”. The goals of the event were to educate local children, adolescents and their families on the dangers of TBI and the importance of protective equipment.

Table 1. Baseline Characteristics of Skateboarders in Tualatin Skate Park

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<tr>
<td>&gt; 20 years</td>
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</tr>
<tr>
<td>Men, No. (%)</td>
<td>87.5% (21)</td>
</tr>
<tr>
<td>Prior Skateboarding Experience</td>
<td>3.3 years (±2.6)</td>
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<td>Hours Per Week Spent Skateboarding</td>
<td>9.2 hours (±7.2)</td>
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<tr>
<td>Previously Injured</td>
<td>21% (5)</td>
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<td>Location of Previous Injury</td>
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<tr>
<td>Arm</td>
<td>40% (2/5)</td>
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<tr>
<td>Leg</td>
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<tr>
<td>Ankle</td>
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<td>Days of School Missed Due to Injury</td>
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</table>
equipment and to use this opportunity to have skateboarders complete a pre- and post-event survey to assess the efficacy of this event as an educational intervention.

A two-part questionnaire was created, utilizing quantitative and qualitative questions. The pre-intervention (baseline) survey included questions on the number of years skateboarding, hours per week skateboarding and injuries sustained, body parts injured, and missed school days in the past year resulting from skateboarding injuries. We surveyed their reasons for skateboarding, reasons for or against wearing protective gear and their current use of protective equipment using a Likert-type scale (e.g. 1 [Strongly Disagree]…5 [Strongly Agree]). In the qualitative portion of the questionnaire, we asked the open-ended question, “What is the biggest influence on you wearing or not wearing helmets and protective gear,” in an attempt to capture any additional influences not already part of the questionnaire.

After the intervention the skateboarders were given a shorter questionnaire, again utilizing a Likert-type scale, to assess the efficacy of each component of the event in influencing their decision to wear helmets and protective gear. These components included the message from ThinkFirst, the former skateboarder safety advocate, and educational pamphlets. This questionnaire also asked if they were more likely, after attending the event, to wear a helmet and to wear protective gear when skateboarding. Finally, they were again asked about their biggest influence on wearing or not wearing a helmet and protective gear.

A total of 50 skateboarders (not including families and casual on-lookers), aged 5-23 attended the skate park on the day of the event, with 24 (48%) skateboarders completing participation in the study. Demographic data is summarized in Table 1.

### Table 2. Pre-Intervention Use & Influence on Use of Safety Equipment

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>N = 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Do you currently wear a helmet?&quot;</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>66.7%</td>
</tr>
<tr>
<td>&quot;Do you currently use other protective equipment?&quot;</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>100%</td>
</tr>
<tr>
<td>&quot;For which reason(s) do you skateboard?&quot;</td>
<td></td>
</tr>
<tr>
<td>Fun</td>
<td>Strongly Agree (4.9)</td>
</tr>
<tr>
<td>Exercise</td>
<td>Neutral (3.6)</td>
</tr>
<tr>
<td>Friends/Peer Influence</td>
<td>Agree (3.9)</td>
</tr>
<tr>
<td>&quot;What influence(s) your use of a helmet?&quot;</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>Neutral (2.8)</td>
</tr>
<tr>
<td>Appearance</td>
<td>Disagree (2.4)</td>
</tr>
<tr>
<td>Friends / Peer Influence</td>
<td>Neutral (2.6)</td>
</tr>
<tr>
<td>Parents</td>
<td>Neutral (2.3)</td>
</tr>
</tbody>
</table>

* Median Response (Mean Likert Score)

### Table 3. Post-Intervention Use & Influence on Use of Safety Equipment

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>N = 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Are you likely to wear a helmet in the future?&quot;</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>21%</td>
</tr>
<tr>
<td>&quot;Are you likely to wear a personal protective equipment in the future?&quot;</td>
<td>50%</td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>&quot;What had the most influence on any change in your position on use of personal protective equipment?&quot;</td>
<td></td>
</tr>
<tr>
<td>Guest Speaker</td>
<td>Strongly Agree (3.9)</td>
</tr>
<tr>
<td>THINK FIRST Presentation</td>
<td>Neutral (3.1)</td>
</tr>
<tr>
<td>Handouts</td>
<td>Agree (3.5)</td>
</tr>
</tbody>
</table>

* Median Response (Mean Likert Score)
Participants overwhelmingly reported that their main reason for skateboarding was that they felt it was “fun,” (87.5%). Additional strong influences included the influence of friends (66%) and perception of it as “sport” (58%). The influence of their parents was the most likely positive impact on their use of a helmet (33%), and the issue of appearing unacceptable to their peers (i.e. “un-cool”) was the strongest factor discouraging use of helmets. For some skateboarders, cost of equipment was a factor in their decision to use / not use a helmet, but did not appear to be an overwhelming burden. (Table 2)

After the event, on exit survey 18 (75%) of skateboarders reported more likely to wear a helmet and 11 (46%) are more likely to wear protective gear. Using binomial distribution, this was statistically significant for utilizing protective gear with a p-value of 0.001. Helmet usage had a p-value of 0.006 and was not statistically significant.

Based on the survey, the service announcement from the former skateboarder had the strongest influence on their decision to use protective equipment in the future (Figure 1). Many of our subjects reported that safety equipment was “uncomfortable,” or “got in the way” (Table 3). Design has an indirect influence on adoption of safety equipment, as our subjects also reported that appearing “uncool” had a moderate-to-strong impact on their decision to use equipment. We found that the former skateboarder was the most influential component of our intervention. Adolescents seem to be more receptive to this message when it is from someone they can relate to and these individuals should be utilized in the educational process. Discovering the barriers to helmet and protective gear usage is one key to improving safety, as some of the barriers can be removed easily. The easiest change to make on a local level is institution of requirements to use safety equipment, and enforcement of this requirement, even in public areas. As in prior reports, we would encourage equipment manufacturers to work with professional athletes and amates alike to produce functional safety equipment that is acceptable in both form and function. Finally, it is important to remove the financial burden of safety equipment. Programs such as ThinkFirst, which provide industry standard equipment at reduced prices should be supported by both local government and academic medical centers as effective community safety outreach programs. Both entities should place these expenditures in the context of health care dollars saved, which makes the spending miniscule in comparison to the financial burden of TBI. 

References:
NEW NEUROSURGERY CASE-BASED LEARNING MODULES

WHAT ARE CASE-BASED LEARNING MODULES?
Case-based learning (CBL) modules are interactive computer-based online vignettes that are being proposed as part of the CNS University. The CBL module takes the user through an important clinical problem in neurosurgery with the help of an actual clinical case. A real-life clinical scenario will be presented that includes relevant images, laboratory reports, and diagnostic options. Throughout the CBL module, case-related questions are posed to the user. These questions could be in different formats, including multiple-choice, true or false, and matching categories. The correct answer, along with explanations and a direct hyperlink to key articles in PubMed, is given after each question. The radiological images are presented as interactive videos that let the user scroll through individual frames of the imaging dataset as a physician does during every day practice. Important high-yield topics in each subspecialty of neurosurgery will have a CBL module.

HOW WOULD CBL MODULES BE CREATED? WOULD THEY BE PEER REVIEWED?
Although this project is still in the works, we propose that a committee of CNS members from each neurosurgical subspecialty select the key topics in the particular subspecialty. The CBL modules will be solicited from fully trained neurosurgeons, neurosurgery residents, and neurosurgery fellows. A group of designated reviewers for each subspecialty would review the CBL modules for relevance, authenticity, and coverage of key points and literature. The authors of the CBL would be asked to revise or make changes in the CBL, according to the reviewers’ comments. The CBL modules would be converted into interactive modules on a specific template and made available online to CNS members through the CNS University website. The committees of peer-review groups (one for each subspecialty) would review the CBL modules (at least annually) for recent updates and ask the previous authors or new authors to revise the CBL modules to keep them current. The date of the last revision of the CBL module will be indicated on the website so that the user will be aware of the timeliness of the information provided in the CBL module.

HOW ARE CBL MODULES DIFFERENT?
The key features that make CBL modules different from traditional learning tools (Figure) are 1) learning focused on high-yield neurosurgical topics in each neurosurgical subspecialty, 2) a real-life clinical scenario directs the thought process of the user when presented with a similar clinical situation, 3) learning the theory behind important clinical decisions when solving a clinical problem will improve the retaining capacity of the user, 4) interactive videos of imaging will enhance the user’s
interpretation of the radiologic images and his or her diagnostic acumen, 5) direct hyperlinks to key articles in PubMed will provide the user with a directed window to key neurosurgical literature and fill the gaps in their knowledge, and 6) an update of information and relevant literature will be provided at least on an annual basis.

**WHO WOULD BENEFIT FROM THE CBL MODULES?**
The CBL modules will be directed to neurosurgery residents, fellows and neurosurgeons in practice. We envision that it will be an important adjunctive tool for board preparation, maintenance of certification (MOC), and for the practicing neurosurgeon to keep current in day-to-day neurosurgical practice. These modules could also provide a vehicle for practicing physicians to obtain continuing medical education credit.

**WILL CBL MODULES REPLACE CURRENT LITERATURE?**
The CBL modules are meant to focus the user's knowledge on high-yield topics and to direct the user's thought process in clinical situations. They could be good review and self-evaluation tools for preparation for primary neurosurgery board examinations and for MOC examinations. These modules will not be a replacement of current literature but will allow focus and direction of learning efforts. The direct hyperlinks to PubMed will lead the user to key articles containing essential information about a particular topic and keep the user's knowledge up-to-date.

**INTEGRATION OF CBL MODULES WITH CNS UNIVERSITY**
The CBL modules are planned to be integrated and linked to current learning tools in the CNS University including NeuroWiki, meeting presentation, Self-Assessment in Neurological Surgery (SANS) questions, and Webinars and to form an integral part of the curriculum of the CNS University and neurosurgical education in the future.
Recently our team at Thomas Jefferson University Hospital was asked to complete a form for the Value Analysis Committee regarding our microcatheter utilization; they were interested in knowing why we had to have so many different shapes and brands available despite the fact that only a few are used on a regular basis. It was also brought to our attention that snares and retrievers were only used twice in the last year. Although these catheters appear to have the same function at first glance, each catheter possesses subtle differences that make them unique. Fortunately, this issue was resolved. Regarding the retrievers, just having to use them twice is a very good thing, despite the fact that they need to be on the shelf and readily available.

Based on this assessment, we realized that the inventory on our shelves is worth close to $3.5 million dollars!

In the last few years, we have seen a proliferation of self-designated centers of excellence (COE) in a variety of clinical realms – one example of this trend is stroke centers of excellence. Reasons to create a stroke center include the improvement in patient care through development of organized protocols and the creation of stroke teams within a hospital, facilitating a multidisciplinary approach to treat this common problem. From a marketing standpoint, a COE helps to differentiate providers from local competitors in the area and may attract more patients.

Despite the fact that there is no difference in the reimbursement tied to a designation of center of excellence, the number of stroke centers has increased in the past three years. According to the Joint Commission there were 218 centers in 2006 and by the end of 2010 the number reached close to 750 programs nationwide (Advisory Board). Only a few states, including Florida and Massachusetts as well as some counties in California, officially recognize Stroke Centers and mandate a special JCAHO designation in order to take patients from first responders.

TPA is the only medication FDA approved for the treatment of stroke within 3 hours after symptom onset. Unfortunately, less than 1% of patients with ischemic strokes receive TPA due to a wide variety of factors including an inadequately educated medical community, lack of coordination between first responder
and stroke centers, and the absence of established protocols to streamline the process in the ER. TPA does not work in all cases and it is sometimes necessary to mechanically remove a thrombus from an occluded vessel via an endovascular approach. Endovascular stroke therapy requires a greater infrastructure with concomitant significant costs.

There are two main tiers among stroke centers. The primary stroke center has an established team with a formal coordinator, operating mainly in the emergency room, with defined protocols designed towards establishing rapid diagnosis in order to identify appropriate candidates for IV TPA administration. These centers also have a very important function as educators in the community, organizing at least one public event a year to raise awareness and discuss preventative measures. The second tier of facilities include comprehensive stroke centers that possess the previously described functions and also have 24/7 coverage from interventional physicians, a dedicated ICU, stroke neurologists, neurosurgeons with expertise in cerebrovascular disease, anesthesiologists and advanced imaging capabilities (24/7 CT, CTA, MRI, MRA, Cerebral angiography, etc.) A key piece of this comprehensive center is to have a biplane angiography suite, which is almost exclusively dedicated to cerebrovascular disease.

A biplane angiography suite costs about $2.5 million dollars, without the additional costs that are necessary to adequately equip the current facility. The operation of this equipment requires specially trained radiology technicians, dedicated nurses and the ability to provide 24/7 coverage.

It has been calculated that about 425 procedures need to be performed in order to financially “break even” or just to cope with the significant equipment costs. This number can be reached in a median size program in about 5 years. Additionally, having the biplane capability opens the possibility of performing other neurovascular procedures distinct from ischemic stroke such as coil embolization of aneurysms, treatment of vascular malformations and fistulas, carotid stenting, vertebroplasties, etc. Proof of this is that the number of aneurysms treated per center in the US increased from 25 to about 40 from 2003 to 2008. Simultaneously and in parallel to the growth of endovascular aneurysm treatment during the same period of time, the training of endovascular specialists has proliferated across the country but only a minority of training programs are ACGME accredited as of November 2010. Only 7 programs have the accreditation while there are more than 50 fellowship programs available. This creates credentialing issues with potential turf wars among the three different specialties that play a role in the field: neurology, interventional radiology and neurosurgery.

In 2005, CMS introduced DRG 559 to separate patients that received IV TPA from DRG 514, which included only the medical therapy without pharmacological thrombolysis. The creation of the DRG 559 aimed to include patients with thrombolytic therapy at least in part to offset the cost of the TPA and infrastructure necessary for its timely and safe administration. This change brought a potential profit margin for hospitals that administer ivTPA. In 2006, CMS approved a new ICD-9 code for patients that receive mechanical embolectomy and allowed its use in conjunction with the DRG 543 for patients treated with the MERCI device. These changes in stroke reimbursement increased the contribution profit from $6,914 to $13,073 and $26,110 in cases where medical therapy alone, IV TPA and mechanical thrombolysis is utilized, respectively. Despite this, there is no specific CPT code that covers mechanical thrombolysis.

After reviewing all the costs involved in developing and maintaining a comprehensive stroke center the logical model is to have one center that functions as a hub with multiple spokes that will “drip and ship” patients requiring an intervention. This hub and spoke model is facilitated with recent technological progress and the ubiquity of internet access where video and sound can be streamed at high speed. Such technology has advanced telemedicine making it possible to “see” patients and images from hundreds of miles away. This reduces the cost for the spokes and thereby only spends a fraction to cover the operation and minimal up front cost to purchase or lease the appropriate equipment. Telemedicine allocates resources in a more rational fashion and also brings more interventional cases to the hub, potentially creating a new revenue stream for the comprehensive stroke center.

Additionally, adding rehabilitation to the stroke center can generate another significant source of revenue. In regions where many different health care systems operate, possibly more than one center may desire to make the necessary investment to transform into a comprehensive center and to share in the local market. In the short term, this may bring substantial revenue for small centers, but based on the volumes that are needed to sustain this model and the amount of resources required up-front and in perpetuity to maintain the center, this model may not be financially sustainable. Additionally, the hype that we are seeing with stroke centers may change if the reimbursement for institutions is reduced.

In summary, a large proliferation of stroke centers and interventional specialists is occurring despite the fact that only a small portion of patients require an intervention. Large investments are required to develop and maintain a comprehensive stroke center, with high price tags on devices that are required to be on the shelf waiting to be used. At the same time, just a minority of TPA candidates receive the medication due to a multiplicity of factors including lack of recognition and uncoordinated resources to deliver the medication on time. Hopefully, high-end stroke centers will adequately educate and increase the awareness in the community making it possible to treat more patients earlier with IV TPA.

References:
1. Regional Stroke development Program Advisory Board, 2010
3. Advisory Board, 2010. Based on 2008 Medicare Data
Twenty-four teams of neurosurgeons from top medical institutions competed June 4th in Central Park at the 8th Annual Neurosurgery Charity Softball Tournament. Endorsed by the American Association of Neurological Surgeons and hosted by Columbia University, the event benefited brain tumor research via the Neurosurgery Research and Education Foundation of the AANS. This year’s competing Departments of Neurosurgery included Alabama, Albert Einstein, Barrow Neurological Institute, Colorado, Cornell/Memorial Sloan-Kettering, Dartmouth, Duke, Emory, Florida, Harvard, Hopkins, Miami, Mount Sinai, Northwestern, NYU, Penn, Penn State, Pittsburgh, Jefferson, Toronto, and Utah. The playoff field included Cornell/MSK and Columbia from the New York division; Alabama and Emory from the South division, Barrow and Pittsburgh from the West division, and Penn and Harvard from the East division. The Final Four teams were Emory, Alabama, Barrow, and Penn. Barrow claimed their second consecutive championship by beating Alabama in the finals.

The Annual Neurosurgery Charity Softball Tournament has rapidly evolved into an international competition, with Toronto joining the field in 2010. The first two championships were claimed by Columbia University in 2004 and 2005, while the University of Pennsylvania repeated their title runs in 2006 and 2007. Harvard followed by winning in convincing fashion during the 2008 tournament. Columbia won their third overall championship in 2009 and Barrow has won in 2010 and 2011. The championship trophy, named “The J. Lawrence Pool Memorial Trophy” in honor of the former Columbia chairman, will be housed in Phoenix for another year.

For the eighth consecutive year, the Steinbrenner family and the New York Yankees have sponsored the tournament. Supported by Mayor Michael Bloomberg, this date has been declared “Neurosurgery Charity Softball Tournament Day” in the City of New York. The Annual Neurosurgery Charity Softball Tournament has become a tradition within the neurosurgical community and represents the amiable competition, social camaraderie, and charitable nature within our field. In particular, the dedication of participating programs, particularly traveling teams, has been impressive. Partnership with the American Association of Neurological Surgeons has been instrumental for transitioning from an institutional effort to an international initiative, with this collaboration allowing funding to support NREF neuro-oncology research fellowships. The planning has already begun for the games to continue next year in June 2012 at the 9th Annual Neurosurgery Charity Softball Tournament, with potentially an expanded field of 30+ teams across the US and Canada.
When portals to the internet are discussed, names of the largest search engines such as Google, Yahoo!, Microsoft’s Bing and Time Warner’s AOL often come to mind. In aggregate, these companies are responsible for 90% of the gross revenues from internet advertising. However, this dynamic may be changing. For the week ending March 13, 2010 the web analysis firm Experian Hitwise reported for the first time visitors to the social networking site Facebook accounted for 7.07% of U.S. Web traffic, overcoming that of Google which received 7.03%.2

Social networking sites are often regarded as internet destinations to share strictly social information. However, in addition to social communicative uses, many sites allow users to utilize these networks as information sources and productivity boosters. When faced with questions dealing with a specific subject with which they lack experience people often approach their friends, families, and colleagues. The recent proliferation of online social networking sites has empowered this practice on a large scale basis with ease and efficiency.

While social networking services provide a source of information that is complementary to that provided by search engines; the former provide information that is tailored towards an individual’s question, while the latter provides objective data from a variety of sources. Sites such as yelp.com, citysearch.com and tripadvisor.com offer user generated content in a review format (Table 1). In a recent Nielsen Consumer Survey, 90% of consumers surveyed said that they trust recommendations from people they know, 70% trusted anonymous consumer opinions posted online, compared with 62% for traditional television advertising.3

Platforms for physician-to-physician social networking have also proliferated recently. In 2009, a Manhattan Research survey reported that 60 percent of U.S. physicians are either actively using social media networks or have an interest in doing so.4 Currently, sermo.com is the largest physician-only social networking site. Sermo allows physician members to freely discuss complex cases, diagnostic dilemmas, treatments, and a range of other clinical and socioeconomic issues. However, despite the potential professional benefits of social networking participation for physicians, all the legal ramifications resulting from the inherent privacy pitfalls have not yet been fully elucidated.5 With the overall increase in the use of social media by laypersons and health experts alike, patients and physicians will almost certainly turn to these sites for a better understanding of complex health issues.

Avoiding the pitfalls of an open online health dialog is responsibility that accompanies this new frontier.

References:
4. Verkamp J: Social media as a way to connect with patients. MGMA Connex 10:46-49, 41.
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★ DIN1: Low Grade Glioma
   The Source
   Moderator: Alfredo Quinones-Hinojosa
   Faculty: Mitchel S. Berger, Jaishri Blakeley, Michael William McDermott

★ DIN2: Controversies in the Treatment of Cervical Spondylotic Myelopathy
   Occidental Grill & Seafood
   Moderator: Paul C. McCormick
   Faculty: Michael G. Fehlings, Zohar Ghogawala, Paul K. Maurer

WEDNESDAY, OCTOBER 5, 6:30 – 8:30 PM

★ DIN3: Current Management Strategies for Metastatic Spine Tumors
   1789
   Moderator: Laurence D. Rhines
   Faculty: Mark H. Bilsky, Peter C. Gerszten, Ziya L. Gokaslan

★ DIN4: Cervical and Lumbar Arthroplasty
   Charlie Palmer Steak
   Moderator: Michael Y. Wang
   Faculty: Domagoj Coric, Fred H. Geisler, James S. Harrop, Gregory R. Trost

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SECTION NEWS

SIGNIFICANT THREAT... RAPID RESPONSE

The profession of Neurosurgery and care of our patients face constant threats. While these threats are numerous, perhaps none is more potentially damaging than that of the limitation of access to care brought about by adverse reimbursement policy decisions. To address these threats, organized neurosurgery must engage a team of highly skilled surgeons to respond to reviews and proposed policy changes. Moreover, the response must be rapid.

To this end, the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves has created a “Rapid Response Team”. This group of unsung heroes is composed of experts in reading and deciphering policy, coding and reimbursement, clinical research and evidence-based medicine. This team, under the leadership of Joseph S. Cheng, MD, of Vanderbilt University, has been developed to quickly address these threats to the practice of Neurosurgery and care of our patients identified by leadership and members. Activities of the team may consist of reviewing and reporting of similar policy responses, reviewing recent evidence, evidence-based medicine reports and precedent, as well as outlining any legal ramifications. A summary is created by the team, vetted by leadership, and submitted back to the policy provider, often a governmental entity or private insurer. This process often takes two to six weeks to fully review a threat, create a document, vet it through leadership and return it to the requesting organization.

Dr. Cheng’s group is made up completely of surgeon volunteers facing a frequently daunting task. Third-party payers are under considerable liability regarding policy decisions that affect patient care. To this end, payers have assembled groups of experts in many fields such as law, policy and evidence-based medicine. In order to address adverse policies and protect our patients, organized neurosurgery must therefore assemble its own group of policy experts, trained to draw upon their specific knowledge of neurosurgery.

This group, the Rapid Response Team, has volunteered to take time from their busy practices to quickly evaluate a policy, do research and write a response. This is often done with very little lead-time and obviously must be accurate and to the point. These rapid yet comprehensive responses are crucial to ensure our patients have access to the best treatments available and moreover to ensure physicians are not forced to limit patient care or leave their practices due to declining reimbursement.

This Rapid Response Team is having an impact. Just within the past year, Dr. Cheng and his team helped lead the charge to challenge the overly restrictive policy by Blue Cross Blue Shield in North Carolina regarding lumbar fusions, and have played a pivotal role in affecting the policies of WellPoint regarding policies covering Electrical Stimulation for Spinal Fusion, Endovascular Procedures, Intraplinal Distraction Devices, Lumbar Fusions, MIS Spinal Surgery, and Stereotactic Radiosurgery. In addition, they have worked as advocates for neurosurgeons and their patients in crafting responses and position statements sent to national payors such as Aetna, United, Humana, Noridian, and others, along with helping neurosurgeons who request help for local reimbursement issues and technology assessments such as with the Washington State HTA and their policy on arthroplasty, vertebroplasty and kyphoplasty. As one of our two CPT Advisors for Neurosurgery and Director of our Coding courses, Dr. Cheng leads his team to help fight erroneous coding policies that adversely affect access to care for our patients as well such as with the BCBS policy to bundle decompressive lumbar laminectomies and fusions, along with inappropriate coding edits with the use of surgical navigation and microscopes.

Organized neurosurgery owes a debt of gratitude to Dr. Cheng and his remarkable team of volunteers. Neurosurgeons strive to do their best and achieve success. In academia that work is often nestled in publications or key visible positions in organized medicine. The work done by the Rapid Response group is all behind the scenes – there is no notoriety except from a few select individuals and committees who understand the implications of this effort. All of us in neurosurgery benefit from this group’s effort. We need to recognize the tireless and extensive work put forth by this group. They are ensuring our patients’ continued access to appropriate and beneficial neurosurgical treatments.

Michael P. Steinmetz, MD

WWW.CNS.ORG 23
will have the honor of introducing 13 new CSNS Socioeconomic Fellows during the upcoming Fall meeting of the CSNS in Washington, DC. Since 1999, the CSNS has welcomed residents as full participants in our representational, deliberate meeting activities. Starting in 2008, resident participation was further codified into a one year, enfolded Socioeconomic Fellowship with specific goals, requirements, and comprehensive 360° evaluations. Since their inception, the Fellowship evaluations have been excellent and the selection process has become extremely competitive. In each of the last three years, more than 50 applicants have competed for the 12 positions elected through each quadrant during the spring meeting (plus one military fellow, for a total of 13 fellows).

The CSNS had its origins in the medical-economic upheavals of the early 1960s when Medicare and Third Party Payors became influential. Since then, the organization has grown and evolved into the primary socioeconomic force within organized neurosurgery. (For a detailed history, https://csnsonline.org/history.php). Following an in-depth Strategic Planning initiative led by then Chair Gary Bloomgarden, MD and facilitated by John Popp, MD, the CSNS adopted a revised mission statement as follows:

The CSNS is a representative, deliberative and collaborative organization of delegate neurosurgeons in training and practice that exists to:

1. positively influence and affect the socioeconomic policy of organized Neurosurgery for the benefit of Neurosurgical patients and our profession,
2. serve as a resource for socioeconomic knowledge and education for our Neurosurgical colleagues, regulatory and health care officials as well as legislative representatives,
3. provide a conduit for new initiatives, concerns and issues to be brought to the AANS and CNS for response and action, and
4. provide an environment for developing future leaders in healthcare policy and advocacy for Neurosurgery.

We believe that the specialty of Neurosurgery stands for the highest quality of care and that neurosurgeons are their patient’s strongest advocates.

The current structure of the CSNS Socioeconomic Fellowship grew out of that same strategic process with the strong leadership guidance of then Vice-Chair of the CSNS, William Bingaman, MD. Currently, Vice-Chair Mark Linskey, MD. serves as the Fellowship director. Throughout the year, the Fellowship has evolved in response to the critical evaluations provided by the Fellows during and at the completion of their Fellowship. While the Fellows have universally praised the experience, they have strongly expressed the desire to have an even greater opportunity to be involved in the work of the CSNS earlier in their Fellowship year. As a result, under Dr. Linskey’s innovative guidance, this year he initiated an on-line Webinar orientation of all the incoming Fellows in June. This will enable them to be better prepared when they arrive in Washington, DC on September 30, 2011.

Steven Griffith, a past Fellow from the SE Quadrant wrote, “Many of us may be in future leadership positions in Neurosurgery, and as such, the CSNS is a wonderful organization in which to get involved.” Interested residents can read more about the Fellowship at https://csnsonline.org/fellows.php.
Presenting the Best Clinical and Basic Science at the 2011 CNS Annual Meeting Original Science Program!

The 2011 Congress of Neurological Surgeons Annual Meeting continually presents the best clinical and basic science during the expanded ORIGINAL SCIENCE PROGRAM, featuring more Oral Presentations than ever before on Monday and Wednesday afternoon!

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The Congress of Neurological Surgeons is one of the largest organizations of neurological surgeons in the world. Today, the CNS represents 7,499 members from all over the globe. The membership includes 3,332 Active North American, 414 Active International, 673 International Vista, 1,197 Resident, 1,008 Senior, 473 Inactive, 10 Honorary, 94 Affiliate, 41 Associate, 58 Transitional, 77 Medical Student, and 122 International Vista Resident Members.

The growth of the CNS membership continues to be robust with a 40% increase in membership over the last 7 years as shown in Figure 1.

The global reach of the CNS continues as international membership has experienced substantial growth. The relatively new International Vista category (with reduced annual membership fee $135) has been particularly successful. Since its inception in January, 2007, there are now 673 new International Vista members. Overall, international membership has grown by over 70% over the last 4 years as shown in Figure 2.

The CNS has had a number of very successful international cooperative meetings including the joint meeting with the Neurological Society of India held in Jaipur in December 2010 and the joint meeting with the Spanish Society of Neurosurgeons held in Madrid in May 2011. These meetings foster collaboration with the CNS and have increased international membership in our organization. The CNS offers a wide variety of educational opportunities for all individuals interested in neurosurgery including access to NEUROSURGERY®, Operative Neurosurgery, and the CNSq as well as full internet access to CNS University including the webinars, image database, and Neuro Wiki - the largest wiki dedicated to neurosurgical topics.

The CNS continues to be a global leader in neurosurgical education and brings the latest scientific knowledge to all of its members through the annual meeting, its publications, and its growing web-based educational platforms. For more information, please feel free to contact me or any of the CNS staff at info@1cns.org.
The Congress of Neurological Surgeons Information Technology Committee is charged with overseeing CNS digital content, as well as researching new ways to provide educational content to its members. In conjunction with a hard-working, dedicated CNS staff, the IT committee attempts to leverage cutting-edge digital technologies to provide educational content to its members.

Recently, a CNS members’ IT needs assessment improvement survey was performed which brought forth a need to improve and expand on interactive educational content. We are addressing these issues by giving the website an overall “face-lift,” addition of new content, migrating to a state-of-the-art IT platform, and expanding on our social media experience.

The CNS home page (www.cns.org) will soon be refined. A dynamic banner will be added to the page to keep the site “fresh” and provide access to snippets of information, such as new webinars, courses, meeting information, or SANS online learning trivia (Figure 1). The Editor’s Choice RSS feed from NEUROSURGERY® will be added to the home page (Figure 1). This will allow CNS website visitors to link to choice articles from the journal’s table of contents.

One of the CNS’s interests is interactive education. The CNS IT/Web Committee is working directly with the Education Committee to create a web backbone or platform for this web educational offering (http://univ.cns.org). The committee is developing a user-modifiable CNS University interface (Figure 2). This will permit the user to create a customized page. All products will be featured as widgets. Widgets, such as SANS, Case of the Month, University courses, and/or Departments may be added or removed as desired.

Twitter and Facebook have become mainstays in our culture. They are widely used in the medical community as well. Their use is multifactorial, but they allow dissemination of information and communication. The CNS recognizes their importance. The CNS currently has a Twitter feed (www.twitter.com/CNS_Update, Figure 3) and is soon to launch a Facebook page. Important information will be disseminated as well as up-to-date educational offerings such as webinars and courses.

Informational technology is a dynamic field. Organizations have to be nimble and continue to move with these changes. The CNS has recognized some limitations in our existing IT platform and is planning a migration to a new system. The new platform will allow the CNS to move forward with interactive and innovative education product creation. Moreover, the speed of production will be increased. Member and meeting services will further be enhanced.

In a rapidly evolving digital world, the IT committee continues to think and change the way we display digital educational content with the ultimate goal of improved learning opportunities for neurosurgeons.
The CNS Education Committee is surely one of the largest in the Congress of Neurological Surgeons committee structure, boasting some 58 volunteer members. The Education Committee is committed to developing quality education designed to improve knowledge and practice performance. The CNS is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide American Medical Association Category I Physician Recognition Awards (AMA-PRA Category I). Annual meetings also provide category II credit for poster viewing. In addition to the annual meetings, other sources of CME credit are available through our CNS University of Neurosurgery (CNSU) course catalogues and webinars.

Maintaining ACCME accreditation is the primary responsibility of the Education Committee and we strive to provide current topics through the CNSU and CNS Annual Meetings, other sources of CME credit are available through our CNS University of Neurosurgery (CNSU) course catalogues and webinars.

The CNSU continues with its well-received webinars with a wide range of topics in spine, trauma, tumor, vascular, and other areas. Twice yearly, CNSU offers the popular live oral board preparation webinars. The NeuroWiki is a resource on many different topics also useful for on-the-spot knowledge or Board examination preparation. Several teams work continuously to improve the CNSU. Among these is the Library Team, under the direction of CNSU Librarians: A. Samy Youssef and Nader Pouratian. They are hard at work editing and adding to the Image Database which will ultimately include operative and neuropathology photos as well as radiographic images. The innovative Information Technology Committee, headed by Michael Steinmetz (Chair) and Brian Ragel (Vice Chair) has worked tirelessly with the Education Committee to continually improve the CNSU look and to expand our reach.

The Education Committee would like to express gratitude for all of its volunteers, each working towards improving the delivery of continuing education to our members.
The Congress of Neurological Surgeons (CNS) is defined through our mission statement which illustrates the global mission of education. Specifically, it states “to enhance health and improve lives worldwide through the advancement of education and scientific exchange.” The CNS serves to promote health by advancing neurosurgery worldwide through innovation and excellence in education. The CNS Publications Committee is designated in our bylaws and aims to achieve these educational goals through all forms of media (written, verbal and electronic).

The Publications Committee is composed of five members: Chair and Editor of Congress Quarterly, James S. Harrop; NEUROSURGERY® Editor-in-Chief, Nelson M. Oyesiku; Clinical Neurosurgery Editor, Gerald Grant; Web Editor, Brian T. Ragel; and Advisory Board Member-at-Large Jamie S. Ullman.

The Publications Committee provides these multiple media platforms for neurosurgical education to advance knowledge and patient care. As we are all aware, the electronic age has advanced rapidly over the last decade and paper-based material has been drastically reduced. The main reason for this transition has been the escalating cost. Despite this trend by many groups and other national medical societies, the CNS has been resistant to this approach, due to the strong member support of the “paper journals.”

This is not to underestimate the need to develop and expand our media capacity and potential. The CNS recognizes the importance of web-based or internet educational platforms. This is exemplified by our already broad and diverse internet programs: SANS, the CNS University and NeuroWiki. There have been discussions of “shifting away” from conventional text to newer and more interactive platforms through the use of more sophisticated technology. Due to our expanding international membership, we believe in expanding and improving our web-based and internet educational resources. Present concepts include interlinking and integrating NEUROSURGERY® with the CNS University (CNSU). This ability to search through multiple media sources is illustrated in the CNSU frontpage (http://univ.cns.org/default.aspx) where the publication material as well as the CNSU can be searched.

The official journal of the CNS, NEUROSURGERY®, is under the direction and guidance of Editor-in-Chief Nelson M. Oyesiku, who took over production in 2009. Dr. Oyesiku continues to advance this leading publication. Recent actions and improvements have included reducing and eliminating a backlog of publications and increasing the efficiency and speed at which manuscripts are reviewed. Recently our publisher, LWW, has further improved the editorial process through adaptations on the web site. This will include a suite of search engine optimizations (SEO) that serve to increase search engine discoverability. These SEO enhancements will drive more referrals to the NEUROSURGERY® web page through external search engines.

The Congress Quarterly (CNSQ) is another example of the CNS commitment to publications and expansion of our multimedia platform. This quarterly journal is “new” in that it was started in late 2006 as an expansion of the former newsletter, Neurosurgery News. The CNSQ has a regular print schedule and is published quarterly, in the spring, summer, fall and winter. One recent change has been to the printing and delivering of the fall issue or CNS Annual Meeting Issue. Since this issue coincides with the CNS Annual Meeting it is utilized to inform members of the numerous activities that take place during this event; the publication committee has moved forward the delivery date such that members can have this issue prior to the advance registration deadline and use it to plan their meeting activities and schedule.

Clinical Neurosurgery records the clinical proceedings of each CNS Annual Meeting, serving not only as an educational tool but also as an archive of the CNS history. Gerald Grant is the editor of this journal, which is currently publishing Volume 58, from the 2010 CNS Annual Meeting in San Francisco, CA. Members of the CNS receive a paperback journal which summarizes this meeting, but in order to increase exposure there is a dedicated Clinical Neurosurgery web page (http://www.cns.org/publications/clinical). This site provides for additional information about the meeting and affords access to the taped “live” videos from the General Scientific Sessions from that and previous meetings which are located in the Department’s Lecture Hall in the CNS University.

The CNS Publications Committee is dedicated to the continued advancement of neurosurgical educational platforms. Through support of the membership and the CNS Executive Committee, it continues to explore and expand internet learning resources to meet and exceed the expectations of our members. We encourage the membership to interact with our publication media and particularly with the CNSQ. Future issues of the CNSQ will be dedicated to defining neurosurgery, in that we will explore the numerous resources that we interact with but do not fully comprehend their missions and goals (Winter 2012). Again, the CNSQ encourages members to submit ideas and comments to info@1cns.org so that we can continue to expand and improve your resources.
PAST PRESIDENTS’ SECTION

HISTORY OF THE CNS HONORED GUESTS

THE “FIRST” CNS HONORED GUEST: FOUNDING AN EDUCATIONAL TRADITION

It has not been commonly discussed how the Honored Guest (HG) tradition of the Congress was launched. There is no argument that the first HG of the CNS was Axel Herbert Olivecrona of the Karolinska Institute in Sweden, who was invited by CNS President Hendrik Julius Svien to the second CNS Annual Meeting held at the Palmer House Hilton in Chicago, Illinois in 1952.

There was no HG at the first CNS Annual Meeting held in Memphis, Tennessee in November 1951. Yet the CNS Archives include documentation of the early intent of the CNS to honor a prominent guest at its meeting. The earliest drafts of the CNS Bylaws dated May 29, 1951 (only 18 days after the CNS was launched by 22 Founding members at a meeting in Saint Louis, Missouri on May 11, 1951) include reference in Article II Section 4 “To honor living leaders in the field of neurological surgery” (Figure 1). An undated memo from that period, in preparation for the first CNS Annual Meeting to be held in November 1951 in Memphis, Tennessee, (Figure 2) outlined as the fourth of four “basic concepts” guiding upcoming CNS meetings, “…to pay honor at each of its annual meetings to one of the older outstanding neurosurgeons. The neurosurgeon selected for this honor will be invited to give the banquet address”.

Another undated memo in preparation for the First Annual CNS Meeting entitled “SCHEDULE OF FEES” included reference to two intended Honored Guests, who would pay no fees at the first meeting in Memphis, Drs. R. Eustace Semmes and Nicholas Gotten (Figure 3). Yet the final program of the 1951 meeting did not include those two guests (Figure 4). Indeed, the banquet address entitled “Back from Beyond” was given by a prominent Memphis sportsman, lecturer, explorer and photographer, Mr. Berry Brooks. There was no HG at that first CNS meeting (Figure 5). Dr. Semmes did not attend that first CNS Meeting in his own town, and instead, his junior partner (then Associate Professor) Francis Murphy was one of the invited speakers (Figure 4), and of course the first CNS President Elmer Schultz was from the same venerable institution. The only Professor of Neurosurgery in that first meeting was Paul Bucy of Chicago, Illinois, and many other outstanding but more junior lecturers. It is not known why Dr. Semmes did not attend and why there was indeed no HG at that first meeting, but other Archive memos document polite refusal of several major neurosurgical figures. In the eyes of senior neurosurgeons of the day, the CNS was not yet ready for prime time, and certainly did not seem to entice the “big leaguers”. The first CNS meeting in Memphis took place on November 15-17, 1951 and was ultimately attended by 63 of the 121 declared “CNS members”, 17 guests and 9 guest speakers (Figure 5), but no HG.

Figure 1: Draft Bylaws with Honored Guest intent - 5-29-51
The early leaders of the CNS decided to do better in preparation for the second CNS Annual Meeting. That second meeting was seminal. Then CNS President Svien invited an international leader, Professor Olivecrona (Figure 6), who was presumably uninvolved in American neurosurgical politics, yet widely respected and admired for his neurosurgical contributions. Other senior American neurosurgical leaders still largely ignored the gathering of junior CNS colleagues, but the organizing committee decided to invite the five Professors of Neurosurgery in the host city, Chicago, Percival Bailey and Eric Oldberg of the University of Illinois, Loyal Davis of Northwestern, Adrian Ver Brugghen of Rush, and Harold Voris of Loyola. They all accepted and shared a Round Table discussion, seemingly not willing to not attend while their in-town “competition” was present at this neurosurgical gathering. Chicago dynamics prevailed and the second Annual Meeting of the CNS including its first HG was a smashing success (Figure 7).

The early CNS leaders stuck to this same modus operandi in the subsequent two CNS Annual Meetings in New Orleans (1953) and New York (1954), with “international star” HGs Sir Geoffrey Jefferson of the United Kingdom and Professor Kenneth George McKenzie of Canada, respectively. At the fifth CNS Annual Meeting in Los Angeles (1955), a “local star” Carl Rand was recruited as HG. Wilder Penfield was both an American and Canadian star, and the HG at the sixth CNS Annual Meeting in Chicago (1956). Subsequent tradition included an increasing prevalence of American HGs, as the CNS became recognized for its leadership and impact.

And finally, since there was no HG at the first CNS meeting in 1951, why are we celebrating the 61st HG this year in Washington DC, at the 61st CNS meeting? Well, that is because President Edward Laws celebrated TWO Honored Guests at the CNS Meeting in New York in 1984 – Hugo Victor Rizzoli and Walter Dandy (posthumous).
27-year-old male presents with a sudden onset of word-finding difficulty and weakness on his right side. He underwent a CT head that demonstrated a left frontal intraparenchymal hemorrhage. He then underwent a CTA (Figure 1) that demonstrated an AVM occupying most of the left hemisphere (Figure 2). This was determined to be a Grade 5 AVM by angiography (Figure 3).

Submitted by:
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New at the 2011 CNS Annual Meeting!

★ The Art of Managing Complex Cranial Cases: A 3-D Video Presentation
  Monday, October 3
  Live from the General Scientific Session stage, this dynamic presentation covers complication avoidance and surgical treatment strategies for complex cranial cases.

★ Live Surgical Presentation – Unyielding Progress: Carotid Stenting (Findings and Practice)
  Tuesday, October 4
  Drs. L. Nelson Hopkins, III, and Elad I. Levy address the application of stenting for carotid disease and present a live carotid stenting procedure, direct from the University at Buffalo Neurosurgery.

★ Operative NEUROSURGERY®
  Tuesday, October 4
  Join Dr. Nelson M. Oyesiku, Editor-in-Chief of NEUROSURGERY®, for select operative videos presented by the authors who published them in the Operative Neurosurgery supplement.

★ Multidisciplinary Oral Presentations
  Wednesday, October 5
  This new oral presentation session features the top basic and clinical research that crosses subspecialties.

★ Case Controversies with the Masters
  Thursday, October 6
  Live from the General Scientific Session stage, these case-based sessions cover Malignant Glioma and Cervical Spine Arthroplasty.

★ And More New Courses and Sessions, including:
  ✪ New Dinner Seminars on Tuesday and Wednesday evening at top-rated restaurants in DC!
  ✪ PC11 Simulation Based Neurosurgical Training Course for residents!

Registration is available online at www.cns.org!
Advance Registration Deadline: September 1, 2011

Stay connected with the CNS Annual Meeting Mobile Guide at http://m.cns.org!