Greetings NANS members:

I hope this finds you well and enjoying a pleasant summer. Since our last newsletter, a lot has happened, and I wanted to take this opportunity to fill you in on some of the many NANS activities taking place to support our members.

**External Meetings and Relations**

From May 16-18, I attended the International Neuromodulation Society (INS) midterm board meeting in Montreal, QC, Canada. Joining me in representing NANS at the meeting were Ali Rezai, MD, and Konstantin Slavin, MD PhD, who were recently elected to the INS board due, in part, to the strong support they received from NANS members. As I previously reported, INS has granted NANS two nonvoting “liaison” positions to the INS board to ensure that NANS is adequately represented given that NANS members make up a significant percentage of the INS membership (approximately 55%). Also joining me at the meeting were Joshua Prager, MD PhD, and Ashwini Sharan, MD.

During our trip to Montreal we visited the site of the 2015 INS meeting. I encourage all NANS members to attend the INS World Congress June 6-11, 2015, in Montreal which is sure to be another outstanding scientific meeting. As a NANS member, you will receive discounted meeting registration and have the opportunity to interact with colleagues from around the world who work in this field. We encourage you to learn more about the meeting and begin booking your hotel and travels by visiting the INS website. Room space is limited on site, so book early.

Throughout the spring, NANS also participated in the annual meetings of the American Academy of Pain Medicine and the American Society of Interventional Pain Physicians to promote our society and reach new audiences. We also began exploring the formation of a relationship with the Neural Interfaces Conference. Neural Interfaces focuses on bringing together researchers and experts to focus on state-of-the-art developments in neural stimulation, deep brain stimulation, and other related areas within neuroscience and neurotechnology.

In April, the Wall Street Journal published an article on spinal cord stimulation titled “When Spine Implants Cause Paralysis, Who Is to Blame?”. If you haven’t already read the article, you can find it at http://online.wsj.com or by searching for the title. Prior to the article's publication, several NANS leaders spoke with Joe Walker, the article’s author, to provide insight into the topic. Although the article does not appear to have received a lot of attention, NANS felt it was important to submit a letter to the editor expressing our opinions on the subject. To date, this letter has not been published (none related to this article have been), but I have included the letter on page 11 of this newsletter for your reference (note that letters to the editor are limited to 300 words).

**NANS Board of Directors Update**

I also would like to share recent changes that took place on the NANS Board of Directors. This spring, David Caraway, MD PhD, NANS vice president, resigned his position on the board. Dr. Caraway recently accepted a new full-time position with industry (leaving clinical medicine completely), which precludes him from continuing in his position on the executive committee. The NANS board and Dr. Caraway felt it was in the best interest of the organization that he resign from his board position to avoid any potential conflicts of interest.

Dr. Caraway has been an invaluable contributor to the NANS board since he was first elected in 2008. During his time on the board, Dr. Caraway played a central role in helping NANS craft several sets of guidelines concerning spinal cord stimulation best practices and patient selection. Dr. Caraway also has been heavily involved in advocating for appropriate reimbursement for and access to neuromodulation procedures, and he has been a regular participant in advocacy efforts on Capitol Hill.

During the past several years, Dr. Caraway became increasingly involved with the NANS Annual Meeting, first as a faculty presenter and then as a meeting co-chair. As part of the meeting planning team, his leadership and vision helped NANS attain the attendance records we achieved the past several years. Dr. Caraway’s contributions to the board and other NANS activities will be greatly missed. We wish him success in his future endeavors.

**continued on page 2**
Dr. Caraway’s departure necessitated reorganization of the NANS board. To fill the vacant vice president seat, the board approved the nomination of B. Todd Sitzman, MD MPH. The board then voted to elevate Lawrence Poree, MD PhD, from director-at-large to secretary to replace the seat vacated by Dr. Sitzman. Dr. Poree’s director-at-large seat will remain vacant until this fall, when we conduct our next board election.

NANS Committee Progress

The Annual Meeting Planning Committee is diligently working on the program agenda to make the 2014 meeting even more dynamic than last year. This year marks NANS’s 20th anniversary. We have planned several dedicated events to celebrate this milestone, including an interactive exhibition that celebrates the history of neuromodulation from its beginning to the present day as well as special recognition of past NANS presidents, leaders, and others who helped found our society. More details regarding the annual meeting, including information on room reservations and registration, will be made available over the summer via the NANS website. I encourage you to become a part of the meeting by submitting an abstract to the abstract collection system (www.neuromodulation.org/meetings) and to save the dates of December 11-14, 2014, to join us at the annual meeting.

Throughout the spring, NANS’s committees remained very active and several reports are included in this newsletter. I encourage NANS members to participate in one of our committees. A full list of these committees and contact information is available on the NANS website under the committee’s page.

This spring, the NANS Foundation held their first strategic planning retreat. The group refined the vision and mission statements for the new entity and also began outlining key projects that we hope will become cornerstone programs as the foundation evolves. One project is a registry, and the other will be a travel/research grant for residents and fellows or early-career researchers. More information on these programs will be available soon. The foundation’s ability to accomplish these important goals will require significant funding, and NANS has started by making an initial contribution of $100,000. The foundation will seek unrestricted grants from our industry leaders to help support the fulfillment of these initial goals. In addition, we will introduce several options for NANS members to contribute to the NANS Foundation to help support these programs.

In July, the NANS Board of Directors will hold its annual midyear meeting and strategic planning retreat. At this year’s meeting, the board plans to review the strategic plan and initiatives we implemented at our last strategic planning retreat in October 2009. We also look forward to charting the course of the society and setting new goals for the upcoming year. A full report on the decisions and actions taken at the meeting will be available in the fall newsletter.

Thank you for your attention. On behalf of the NANS Board of Directors, I wish you a pleasant summer.

Sincerely,

David Kloth, MD
NANS President
North American NEUROMODULATION Society

Celebrating 20 Years

SAVE THE DATE

18th ANNUAL MEETING

December 11-14, 2014
Mandalay Bay Convention Center & Four Seasons Hotel
Las Vegas, NV
Coding and Reimbursement Update

David Caraway, MD PhD

By now, the multiple reimbursement changes that have been implemented by the Centers for Medicare & Medicaid (CMS) during the past 2 years are well known by most neuromodulation providers. Perhaps most notable has been the inclusion of device costs as part of the practice expense in the nonfacility (office) setting that resulted in a drastic reduction in payments for trial lead placement in this service site. Barring changes, facility payments affecting most of the neurostimulation therapies will be implemented in 2015.

Healthcare Common Procedure Coding System (HCPCS) codes are the billing codes used by Medicare and monitored by CMS. They are based on the Current Procedural Technology (CPT) codes developed by the American Medical Association (AMA). HCPCS codes are numbers assigned to every task and service a medical practitioner may provide to a Medicare patient including medical, surgical, and diagnostic services. Outpatient reimbursement methodologies generally are composed of fees associated with HCPCS codes and rules for packaging, code editing, billing, and multiple procedure reimbursement known as ambulatory payment classifications (APC). With a few exceptions, APCs are based solely on the procedure code rather than a combination of procedure and diagnoses. Similar procedures are mapped to one APC.

Beginning calendar year (CY) 2015, CMS intends to replace all 29 device-dependent APCs with comprehensive APCs, which represent a drastic change to the existing payments for these included services. Comprehensive APCs are designed to provide all-inclusive payments to outpatient facility providers and represent changes to both the methodology of fee calculation as well as the payment for these services. Spinal cord stimulation (SCS) is included in the movement to comprehensive APCs and is one of the therapies in the newly designated neurostimulator family of APCs. In CY 2015, SCS reimbursement will be packaged for all services related to this therapy, including full system implants, trials, and replacements.

Some of the 2015 comprehensive APC payments represent a budget neutral impact on Medicare payments to facilities, such as the SCS full system implant procedure, which most frequently includes one implantable neurostimulator and two percutaneous leads. The comprehensive APC payment will include all implantable devices used in the procedure and the payment will not increase if additional devices (such as additional leads) are used. The trial procedure is another example of comprehensive APC changes that impact SCS. The SCS trial procedure will receive one all-inclusive payment for this service and the overall net reimbursement to the facility will dramatically change based on the number of trial leads used for the patient (ie, one or two leads). Furthermore, when the facility reimbursement for a two-lead percutaneous trial procedure is compared from 2014 to 2015, there will be an approximately 29% payment reduction when two leads are used as part of the patient’s trial. However, using the same comparison, the facility reimbursement for a single lead trial procedure in 2015 will see an approximately 41% payment increase compared with 2014 facility reimbursement. Total reimbursement to the facility modeled as a percutaneous two-lead implant would rise about 2.4%. For the most frequent situation of a two-lead trial followed by a full system implant, the combined payment to the hospital would fall about 6%. The 2015 payment rates (Table 1) are estimated based on the 2014 rate setting data found in Table 8 in the 2014 CMS Final Rule. It should be noted that these are estimated average payments and are subject to change, reassignment, or even elimination prior to implementation.

To summarize, the final rule as published by CMS for CY 2014 details the assignment APCs as follows:

- All percutaneous trial lead placements, regardless of the number of leads, initial or replacement, will map to APC 0061 with $6,544.57 average estimated payment (CPT codes 63650, 63663, 63664).
- All permanent (full-system implants) regardless of number of leads, percutaneous or surgical, initial or full replacement, will map to APC 0318 with estimated average payment of $27,132.25 (63685 for SCS, 64590 for sacral/gastric, 61885 for DBS).
- Generator-only replacements billed with CPT code 63685 will map to APC 0039 and the 2014 payment assigned is $17,232.90.

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<th>CPT/HCPCS</th>
<th>Description</th>
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<th>Estimated Outpatient Hospital Allowable: 2015</th>
<th>Change (%)</th>
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<tr>
<td>63650</td>
<td>Percutaneous lead placement—first lead</td>
<td>$4,626.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63650</td>
<td>Percutaneous lead placement—second lead</td>
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<td>L8680</td>
<td>16 units billed for both leads placed</td>
<td>$9,253.00</td>
<td>$6,544.57</td>
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**Implant Phase**

**Modeled as a two-percutaneous lead and generator implant**

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<th>Estimated Outpatient Hospital Allowable: 2015</th>
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</tr>
<tr>
<td>63685</td>
<td>Generator implant</td>
<td>$17,232.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95972</td>
<td>Electronic analysis of implanted neurostimulator pulse generator system</td>
<td>$115.82</td>
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**Total reimbursement**

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<th>Description</th>
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<th>Estimated Outpatient Hospital Allowable: 2015</th>
<th>Change (%)</th>
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<td></td>
<td>Total reimbursement</td>
<td>$26,601.72</td>
<td>$27,132.25</td>
<td>2.4%</td>
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<td></td>
<td>Facility: Trial + Implant Reimbursement</td>
<td>$35,854.72</td>
<td>$33,676.82</td>
<td>-6.4%</td>
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</table>

Table 1. Anticipated 2015 APC Payments: Modeled for Two-Lead Trial Followed by Two-Lead Implant

*continued on page 10*
NANS Mentorship Program

Julie Pilitsis, MD PhD FAANS; Jason Pope, MD; Chengyuan Wu, MD; Andrew Shaw, MD

The value of mentorship is a lifelong experience. As children, our parents, relatives, and neighbors serve in this role; then from grade school through medical school, our mentors expand to include our teachers, coaches, and friends. Ultimately, our careers as physicians are often determined by the mentors we have as medical students. One study reports that 47% of students indicated that clinical mentors were a primary reason for deciding on a specialty. In fact, mentorship and role models have the greatest impact on medical students’ choice of specialty.

As we enter residency training, it stands to reason that mentors would continue to have this effect on selecting a subspecialty. Neurosurgical experiences vary widely, and exposure is often faculty dependent. Further, the neuromodulation experience offered by American Council of Graduate Medical Education pain management programs is not uniform, with more reliance on self-teaching and development of didactic content from industry following formal training.

It is well described that neuromodulation outcomes vary, as some authors contend centers of excellence are needed. Forthcoming guideline statements (Neuromodulation Appropriateness Consensus Conference) sponsored by INS attempt to further promote the safe and efficacious implementation of neuromodulation, because there is currently a paucity of evidence-based guideline development in living document form. The void of a personal, ongoing, accountable mentorship strategy is the obvious deficit in promoting safe patient care, and NANS is interested in filling the void.

Working collaboratively, the NANS Resident and Fellow Section (RFS) and the Women in Neuromodulation (WIN) Section are pleased to announce the development of the NANS Mentorship Program, with special interest groups including, but not limited to, sections dedicated to RFS and WIN with the vision to fill the aforementioned deficit. Participants will have the opportunity to join special interest groups that best serve them, oftentimes more than one, to create relationships, improve safety, and foster the development of a neuromodulation component to their practice.

Spearheaded by Julie Pilitsis, MD PhD FAANS; Jason E. Pope, MD; Steven Falowski, MD; Erika Peterson, MD; Chen Wu, MD; David Provenzano, MD; and Michael Hanes, MD, fellow and resident members will be offered the opportunity to be paired with NANS mentorship faculty. The mentorship interaction is governed by a schedule that is both individualized and structured to ensure accountability and will be accompanied by Web-based didactic content to reinforce neuromodulation principles. With the success of the 2013 NANS Cadaver Workshop, efforts to expand to a twice-a-year workshop schedule may provide the vehicle for further hands-on training, and extend the workshop to the general membership.

At the NANS 2014 meeting, a pilot program will be offered with an effort to enhance the safety and access of neuromodulation. As the co-director of the national medical student mentoring program in neurosurgery, Dr. Pilitsis will speak from experience in sharing that serving as a mentor is equally as helpful as it is truly inspiring to help others maximize all their opportunities as they discover the field of neuromodulation.

After a successful pilot, we hope to provide an impactful training opportunity for the NANS general membership by 2016. For further details on the NANS mentorship program, along with the RFS and WIN special interest groups, please contact cwelber@neuromodulation.org. More information will become available as the national meeting nears.

References
**Committee Updates**

**Membership Committee**

*Lawrence Poree, MD PhD*

The NANS Membership Committee would like all NANS members to watch for a notification we will be sending later this summer, encouraging you to update your membership profiles in the members’ only portion of the NANS website. This effort will allow us to better assess the composition of the membership and identify other specialties and areas of interest in which we might be able to reach out and better serve you. Thank you in advance for attending to this upcoming request.

**NANS Foundation**

*Robert Foreman, PhD FAHA*

NANS is dedicated to advancing the field of neuromodulation and providing development opportunities for its members. The NANS Foundation was established at the beginning of 2013 and a formal announcement regarding its incorporation was made during the 2013 NANS Annual Meeting. The founding board is composed of the following NANS members: Robert Foreman, PhD FAHA, president; Joshua Prager, MD PhD, treasurer; Lawrence Poree, MD PhD, secretary; Jiande Chen, MD PhD, Richard North, MD, and Jane Shipley, MD, scientific advisors; Richard Rauck, MD, and Ashwini Sharan, MD, advisors to the board; and Chris Welber, MBA, executive director.

To further develop the mission and vision of the NANS Foundation, as well as begin implementation of its overall operational strategy, a team of NANS members attended and participated in the first NANS Foundation Strategic Planning Retreat in March. The day-long meeting was designed to involve strategic planning, team building, and focused discussions to shape the direction of the NANS Foundation. Participants included Drs. Prager, Sharan, and Foreman; Ali Rezai, MD; Lawrence Poree, MD PhD; Parag Patil, MD PhD; Shivanand Lad, MD; Richard North, MD; and Mr. Welber.

This team established the foundation’s mission and vision statements. The mission statement is to support multidisciplinary collaboration among patients, clinicians, scientists, engineers, and others to advance neuromodulation through research and education. The vision statement is to promote patient safety, appropriate patient selection, and access to cost-effective neuromodulation therapies through the development and dissemination of evidence and to promote translational and basic science research and enhance the evidence-based support for the current and emerging applications of neuromodulation.

Some of the major points discussed during the retreat that will be expanded in the future include the relationship between physicians and industry; coordination of research efforts between the International Neuromodulation Society and NANS; examination of neuromodulation and surrounding therapies; regulation of quality of care; promotion of translational research; dissemination of medical/specialty information; multidisciplinary approaches to governance; and new emerging initiative platform and reduction of conflict of interest between NANS and industry partners, payors, and regulatory bodies.

The goals of the NANS Foundation are to provide resources, support, and expertise to foster the growth and development of neuromodulation education. To achieve these goals in the near future, the foundation hopes to establish neuromodulation fellowships and training opportunities, as well as the development of practice guidelines that promote patient safety, effectiveness, and appropriate patient selection for neuromodulation therapies. There also will be support for clinical and basic science research to improve the understanding of the mechanisms, scope, and evidence-based support for the use of neuromodulation therapies.

Last, we will implement a marketing program to solicit support for the foundation. The foundation board hopes to liaise with industry partners and supporters as well as other research organizations to obtain support for the foundation’s activities and goals. NANS members also will be given the opportunity to support the foundation directly via a giving campaign. More details regarding these efforts will be available shortly.

**Website Committee**

*Parag Patil, MD PhD*

The NANS website recently began to receive updates to its appearance and functionality. The NANS Residents and Fellows’ Section has been given its own unique link on the website, along with several dedicated pages focusing on content and topics relevant to members of that group.

The NANS home page will also undergo small visual and usability updates in the near future. We will add a search feature along with a visitor counter. The homepage will receive a light makeover that will allow it to display more current content alongside the information already displayed there.

Last, we are pleased to let you know that you can now access the electronic archive for the *Neuromodulation* journal directly from your members only page on the NANS website. Once logged in to the members only page, you will see a dedicated link that will take you to the publisher’s site for the journal. You will no longer need to perform a second login to access content and back issues.

**Resident and Fellow Section**

*Andrew Shaw, MD; Chengyuan Wu, MD*

The purposes of the Resident and Fellow Section (RFS) are to promote education in neuromodulation, serve as a resource for mentorship and career development, provide a forum for discussions in this multidisciplinary field, and encourage early and active participation in NANS. The newly elected leadership set forth specific goals of creating an educational page on the NANS website, enhancing communication via social media and establishing an RFS breakout session at the NANS Annual Meeting, while maintaining a robust premeeting cadaver workshop.

The skills and techniques needed for neuromodulation are unique and, unfortunately, minimal time is spent obtaining the requisite knowledge during traditional resident education across all specialties. Web pages designed specifically for trainees have been launched at www.neuromodulation.org/resident-and-fellow/notification/ and contain several resources, including communications about section events, links to upcoming events, educational resources, and career development tools. As content continues to be added, we hope to provide a unique and comprehensive resource for all residents and fellows who have a special interest in neuromodulation. Specifically, we plan to provide an online curriculum to cover basic surgical techniques, surgical
In Memoriam: Krishna Kumar, MD PhD

On Sunday, April 13, 2014, Krishna Kumar, MD PhD, a pioneer of neuromodulation and world-recognized leader in the neurosurgical treatment of pain, passed away after suffering cardiac arrest the day before.

Dr. Kumar led seminal studies in deep brain stimulation for chronic pain and established the safety, efficacy, and cost-effectiveness of spinal cord stimulation. Among his many important contributions are the PROCESS and PROMISE studies. The PROCESS study established the effectiveness, superiority, and long-term efficacy of spinal cord stimulation compared with medical management alone in patients with failed back surgery syndrome. The PROMISE study is the first prospective randomized multicenter study designed to assess the effects of spinal cord stimulation combined with medical management compared to medical management alone in patients with predominantly axial low back pain.

Dr. Kumar’s research and efforts were highlighted in the documentary Living with Pain. His life was chronicled in Reaching the Impossible, a 2010 biography. Born in Jabalpur, India, in 1957 Kumar moved to Canada, where he received neurosurgery training in Halifax, Edmonton, and Saskatoon before settling in Regina in 1962. For 5 decades, he led a vibrant and highly recognized program in Regina, where a street is named after him. Among his many honors, Dr. Kumar was named Saskatchewan’s physician of the year in 2008 and received the Queen’s Diamond Jubilee Medal, the Saskatchewan Order of Merit, and the Order of Canada. He received the Giant of Neuromodulation award in 2011 from the International Neuromodulation Society. Within NANS, Dr. Kumar served as a board member and presented at numerous NANS annual meetings.

Dr. Kumar is survived by his wife Shubha, two sons Rajeev and Ashok, his daughter Usha Nath, six grandchildren, and three great-grandchildren. Dr. Kumar was not only a great physician, husband, father, grandfather, and great-grandfather but a mentor, teacher, and lecturer to all of us.

With a focus on clinical skills and operative techniques, there is a significant lack of education directed toward career development topics in resident and fellow training programs. The NANS-RFS would like to provide a resource for trainees to enrich the education of residents and fellows interested in neuromodulation. In that spirit, we are working on creating a dedicated breakout session to be held during the NANS Annual Meeting that will focus primarily on career development in the field of neuromodulation. Topics will range from innovation to the business side of medicine and from understanding contracts to building a practice. The content is actively being created and is directly influenced by resident and fellow feedback. A link for a poll to help determine topics of interest can be found on our Facebook page.

Overall, the RFS is interested in representing and speaking for the needs of trainees with the overriding goal of education, innovation, and scientific progression. We encourage all residents and fellows to be active participants in the section.

checklists, links to industry specific innovations, and a lecture series offered by NANS faculty.

Because of the diverse nature of formal neuromodulation education and the need to provide a more uniform training experience, the RFS committee is spearheading the NANS mentorship program. The program's vision is to have special interest groups, including an RFS section and a Women in Neuromodulation (WIN) section, to enhance the educational experience. Once established, this program will be extended to the general membership of NANS to establish annual or biannual hands-on training opportunities, directed by world-renowned faculty and mentors.

Neuromodulation is a unique field in that it draws together multiple specialties including anesthesiology, neurosurgery, physiatry, neurology, and urology. To improve communication between this diverse group of trainees and to create forums for discussion, a Facebook page (www.facebook.com/NANSRFS) and a Twitter handle (www.twitter.com/NANSRFS) were created. Through these modalities, we will continue to provide updates regarding meetings, distribute polls for feedback, and create a general platform for networking and discussion.
The International Neuromodulation Society (INS) is looking ahead to its biennial world congress, Neuromodulation: Medicine Evolving Through Technology, at the Fairmont Queen Elizabeth Hotel in Montreal, June 6-11, 2015.

In addition to the 3-day scientific session, the event includes two preconferences: Fundamentals of Neuromodulation, including Mechanisms of Action, on June 6, 2015; and Innovations in Neuromodulation on June 7, 2015.

Many thanks to those who submitted proposals for symposia and plenary presentations for the INS 12th World Congress in 2015. The scientific committee has reviewed the proposals and drafted the first iteration of the scientific program. In late May, the INS Full Board gathered in Montreal to preview the congress venue. The elegant setting is centrally located, with state-of-the-art meeting facilities to enhance the experience of delegates who attend the congress in this pleasant, cosmopolitan city. The INS is delighted to be working with the Canadian Neuromodulation Society, which not only complements the program with excellent science but also is enthusiastically preparing to welcome colleagues from around the world.

For the benefit of diverse delegates who will convene next spring in Montreal, the INS 12th World Congress spans a wide range of topics such as neurostimulation for pain, epilepsy, Parkinson’s disease, movement disorders, depression, obsessive compulsive disorder, cardiac disorders, peripheral vascular disease, uropelvic disorders, functional electrical stimulation for hearing and eye sight loss, stroke, and quadriplegia. An opportunity to receive continuing medical education credit will be available.

Meanwhile, abstract submissions are welcome from investigators, who, due to our focus on applied multidisciplinary endeavors, typically include bioengineers, research scientists, clinicians in public and private practice, and university faculty members. The abstract submission deadline is January 12, 2015.

INS has released the exhibitor prospectus and invites companies to participate in the commercial exhibition.

Next, the INS 13th World Congress takes place May 27-June 1, 2017, at the recently expanded Edinburgh International Convention Center, a destination that anchors Scotland’s vibrant innovation hub.

The INS now offers members the option for their details to be listed in a public directory, posted at www.neuromodulation.com/public-directory. For the convenience of users, the directory is searchable by location.

If you would like to have your basic contact details displayed in the public directory, please log in to the members-only section of the INS website, www.neuromodulation.com/login, and click on “Edit My Profile.” Then, under “Include my clinic in the public directory,” choose: Yes, No, or N/A. Only basic information from profiles marked “Yes” will be displayed publicly.

NANS and INS have agreed to coordinate to ensure the NANS website bears links to patient education materials and related website information from INS and to invite you to make full use of these and other resources available to you from INS as part of your membership. As a benefit available only to INS members, including NANS members, PDFs of the handouts are available in the members only section of the INS website, www.neuromodulation.com, which can be customized to add contact information prior to printing or providing electronically.

Simon Thomson, MBBS FFPMRCA
INS President
I would like to open this article by thanking our corporate and physician friends who advocated for the inclusion of women on the NANS Executive Board, and Robert Levy, MD, for his editorial, “Women in Neuromodulation” as well as his appointment of 10 prominent female neuromodulators to the journal’s editorial board. We appreciate the receptiveness of the NANS Executive Board to this issue and are thrilled by their support in mentoring and sponsoring female neuromodulators.

To that end, and based on my experience in neurosurgery, I would like to speak to the importance of having a “Women in Neuromodulation” section of NANS. As a junior resident, I attended my first Women in Neurosurgery (WINS) meeting and wasn’t sure what to make of it. I was fortunate to have two female staff and one senior female resident as role models during neurosurgical residency but didn’t see any benefit to joining WINS. I seemingly was doing fine without it and could definitely do without the 6 am meeting, chosen to keep our calendars open for other events. Despite my reservations, I kept going to the meetings because my faculty was very involved. Eventually, I was selected as an officer and then finally began to “get it.” In general terms, being involved in organized medicine offers experience in running meetings, assigning/completing action items, and finding creative solutions to problems to which we have limited exposure in training or as junior faculty. Being involved in an advocacy group furthers the experience. Participation in advocacy groups provides the opportunity to deliver messages, develop partnerships, and mentor or sponsor others. It allows members to play a role in changing policy and in promoting social awareness for the next generation of physicians.

Although there is no doubt I have grown professionally by participating in WINS, what is more important is the contribution it allowed me to make to the field. Specifically, the WINS medical student mentorship program matches 80 mentor-mentees annually to help students reach their goals of becoming neurosurgeons. This year, WINS became an official section in organized neurosurgery and thus has a sustainable framework for advocacy of women’s issues in the future. Most importantly, I have had the opportunity to see how opening up a discussion of gender equality can evoke change. I was fortunate to serve as WINS chair when Sheryl Sandberg’s book Lean In brought the topic again to the forefront and have been a social reawakening that led some female neurosurgeons who typically had shied away from gender-related organizations to actively serve on them. I also have witnessed male neurosurgeons become advocates for women once they became aware of some of the uphill battles their female colleagues, wives, and daughters face on a daily basis at home, at local institutions, and at the national levels.

Perhaps most interesting, I have been exposed to female neurosurgeons from outside the United States. Currently in the United States, 15% of neurosurgical residents are women and the percentage of female neurosurgeons excluding residents is 5.4%. Although the numbers are still dismal, times have improved from the recent past, when one US female neurosurgeon stated, “I would pretend that I wasn't a woman and hope that no one would notice.” In India, there are only 15 female neurosurgeons. One of them relates that she was discouraged from the field because “she would be taking away a job from a man.” For those who do make it, there are no pretty surgical caps or talks on work-life balance. They are stuck in the aforementioned “pretending to be a man” stage. In other countries, however, 50% or more of neurosurgical residents are women and the issues we struggle with in the United States are far less prevalent. There is no concern about fitting in as a woman with the female nurses, scrub technicians, or administrative assistants. Instead, there is concern with doing the best job possible, rather having to do it better or different because you are a woman.

Although neurosurgery is just one specialty involved in neuromodulation, Dr. Levy points out that by looking at the makeup of the Executive Boards of NANS/INS, the gender disparity in neuromodulation is evident. In my experience, all you need to do is look around the room at an industry or society neuromodulation course to see the numbers. Achieving adequate representation for women in neuromodulation is a lofty task because of the multitude of specialties involved. However, because of the different experiences and specialties, I think in many ways neuromodulators are more receptive to the importance of diversity than other physicians. The recognition that discrepancies exist and that inequality is not fair is the first step in this process and is an issue that needs to be reiterated at all levels. The next step is the appointment of qualified women to highly visible leadership positions to help mentor and sponsor other women. These appointments, however, will not be successful alone; men also need to take an active role in the sponsorship of their female colleagues.

In any field, a critical mass of women in leadership positions is 33%, although most Fortune 500 companies and academic medical institutions and remain stagnant between 10% and 20%. Unfortunately, until this critical mass is reached and sustained, and until our society reaches a point where gender and race do not come into the equation, advocacy groups must continue to push these issues forward. For both men and women who do not think there is a need for these groups and do fine without them as I once did, I write to share my opinion on what gender advocacy groups do—they improve social awareness in our small ecosystem. My hope is that this effect will permeate other aspects of our lives. I urge all of us, whether through this group or not, to help promote others outside of our normal social circles to maximize their opportunities for the good of the field. I believe the first step to a diversified workforce is for all of organized neuromodulation to strive to be inclusive. To achieve this goal, residents, fellows, and junior faculty need to be exposed to people who look like them on the podium at national meetings and in leadership positions. It is essential to start from the ground up and inspire grade school-age children, undergraduate students, and medical students to pursue neuroscience. To that end, the Women in Neuromodulation section of NANS welcomes all physicians and industry partners—men and women alike—to work together in the establishment and maintenance of a balanced workforce. Such diversity will foster creativity and innovation and cement the bright future of neuromodulation. We welcome all NANS members and corporate partners to the Women in Neuromodulation reception at the NANS Annual Meeting on Friday, December 12, 2014, to show their support for this initiative.

References
Oddly, when a laminectomy approach is used to place a trial lead it will also map to 0039 under current methodology. Although this is an infrequent situation given the significantly lower actual costs reported on claims for this procedure, this may be a target for reassignment.

**Peripheral Nerve Field Stimulation/Peripheral Nerve Stimulation**

Recommendations have been published regarding the appropriate use of CPT codes for peripheral nerve field stimulation (PNFS) used to alleviate severe, chronic pain often in the cervical, thoracic, or lumbar region. Leads are generally placed in the subcutaneous tissue in and around the painful area, and the electrical current is applied to create stimulation in the patient's area of pain. This also may be described as “field stimulation.” This technique differs from peripheral nerve stimulation (PNS), in which specific peripheral nerves are targeted and the stimulating electrode(s) are placed adjacent to the nerve either by open or percutaneous approach. The lead placement procedure is often reported with CPT code 64555. No devices have been approved by the FDA specifically for PNFS. Percutaneous PNFS and PNS generally are considered off-label usage of SCS devices that have been approved by the U.S. Food and Drug Administration (FDA) for the treatment of chronic pain. The following category III CPT codes specific to PNFS treatment became effective in 2012:

- **0282T:** Percutaneous or open implantation of neurostimulator electrode array(s), subcutaneous (peripheral subcutaneous field stimulation), including imaging guidance, when performed, cervical, thoracic, or lumbar, for trial, including removal at the conclusion of trial period
- **0283T:** Percutaneous or open implantation of neurostimulator electrode array(s), subcutaneous (peripheral subcutaneous field stimulation), including imaging guidance, when performed, cervical, thoracic, or lumbar, permanent, with implantation of a pulse generator

With the hard work of David Kloth, MD, and NANS, there has been some progress in certain commercial and Medicare carriers covering both PNS and PNFS. Others still view both as investigational. It is important to understand the specific carrier’s benefits policy and to carefully document the details of the procedure consistent with the billed code.

There has been increasing discussion around appropriate use of programming codes. Programming codes 95971 (simple), 95972 (complex first hour, appended with -52 modifier if less than 31 minutes), and 95973 (complex programming, each additional 30 minutes) are a separately billable service whether done via internal or external generator, intraoperatively, postoperatively, or at follow-up. According to CPT manual instructions, 95971 “simple” programming involves changes to three or fewer parameters, and “complex” 95972 programming involves changes to four or more parameters. The parameters that qualify are rate, pulse amplitude, pulse duration, pulse frequency, eight or more electrode contacts, cycling, stimulation train duration, train spacing, number of programs, number of channels, alternating electrode polarities, dose time, or more than one clinical feature.

The AMA has taken the position that the inherent portion of lead placement (63650) is the electrical testing necessary to verify integrity of the system such as impedance testing. Thus, programming including paresthesia testing is not part of the intraoperative work and is an appropriate separately billable code “if indeed performed.” In the office, programming may be furnished by a physician, practitioner with an “incident to” status, or auxiliary personnel under the direct supervision of the physician with or without support from a technician supplied by a manufacturer. It is not appropriate to bill a patient or payor for services performed by a manufacturer representative. It is recommended that the procedure note generated by the provider to support the billed programming codes include indication for the programming, description of the programming changes, and the clinical outcome of the programming as determined during examination by the provider.

All of the above are based on interpretation of the rules but are not an assurance of accuracy. Each provider is personally responsible for compliance with CMS guidance and regulations as well as all carrier guidelines and benefits policy.

**Reference**

Meetings of Interest
NANS members are encouraged to attend these meetings of interest presented by other pain, spine, and neurology associations. Please see the following contacts for more information.

September

PAINWeek® 2014
September 3-6
Las Vegas, NV
www.painweek.org

CASIPP 5th Annual Meeting
California Association of Interventional Pain Physicians
September 12-14
Rancho Palos Verdes, CA
www.casipp.com

21st Congress of the European Society for Stereotactic and Functional Neurosurgery
The European Society for Stereotactic and Functional Neurosurgery
September 17-19
Maastricht, The Netherlands
www.essfn2014.org

October

Anesthesiology 2014
American Society of Anesthesiologists
October 11-15
New Orleans, LA
www.asahq.org

64th Annual Meeting of the Congress of Neurological Surgeons
Congress of Neurological Surgeons
October 18-23
Boston, MA
www.cns.org/calendar/default.aspx

6th Annual Scientific Meeting
Texas Pain Society
October 24-26
San Antonio, TX
http://texaspain.org

NANS Responds to Wall Street Journal Article
Editor's note. The letter below was written by NANS President David Kloth, MD, on behalf of NANS members to provide a response to the Wall Street Journal (WSJ) article, “When Spine Implants Cause Paralysis, Who Is to Blame?”, published on April 15, 2014. The letter was submitted to the WSJ but has not yet been published.

Dear Editor,

Spinal cord stimulation helps hundreds of thousands.
As medical professionals who work in the field of neuromodulation using spinal cord stimulation (SCS) to relieve pain, we are saddened to hear about any patient who experiences a complication from a procedure, such as the individuals mentioned in Joseph Walker’s piece (“When Spine Implants Cause Paralysis, Who Is to Blame?”, April 15, 2014). However, we think the public should also know that this therapy has brought life-enhancing relief to hundreds of thousands of patients worldwide.

We are concerned that the numbers provided to Mr. Walker may overstate the rate of serious complications such as paralysis, which is significantly lower than 1%. Alternative treatment options, such as repeat spinal surgery or oral medications, also have significant associated risk, as does living with severe, untreated, intractable pain.

At the same time, there is no question that the number of complications must be reduced, and in that regard clinicians have developed a number of techniques to decrease the rate of both serious and lesser complications. The North American Neuromodulation Society (NANS) has worked with manufacturers, regulators, and other societies to ensure that only physicians with proper training and experience provide these therapies. Although NANS does not have the authority to certify practitioners, it has taken the lead in developing SCS guidelines and advising insurance carriers on coverage policies for SCS.

SCS is an important treatment for many patients with intractable severe pain related to a variety of conditions. Moreover, neuromodulation devices are FDA-approved to treat other conditions, including Parkinson’s disease, tremor, neurogenic bladder, spasticity and epilepsy. A recent Journal report discussed how spinal stimulation holds promise to facilitate functional recovery in paraplegics.

NANS recommends that patients investigate doctors’ training and experience with these procedures before deciding which physician to use; this is, of course, sound practice for any major procedure.

Dr. David Kloth
President, North American Neuromodulation Society
www.neuromodulation.org
Make the Most of Your NANS Membership

Your membership in NANS entitles you to a number of benefits, including print subscriptions to the NANS Newsletter and Neuromodulation journal, recordings and handouts from the annual meeting, members access to the NANS website, and discounted registration to the annual meeting.

Don't miss any of these benefits! Be sure your contact information is up to date by verifying and updating your member profile in the following ways:

- **WEBSITE.** Click the Member Login link in the upper right corner of the NANS website to verify that we have the most current information on record.

- **PHONE.** Call Member Services at 847.375.4714 to speak with a member services representative.

- **E-MAIL.** Send your current contact information to info@neuromodulation.org.

Visit [www.neuromodulation.org](http://www.neuromodulation.org) for the latest updates in neuromodulation.