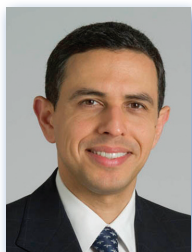




North American Neuromodulation Society

NEWSLETTER



President's Message

A Year of Growth and Opportunities

Ali R. Rezai, MD

Our organization had a highly successful year in 2012, providing a variety of initiatives and programs to advance our field and benefit our members and patients. In 2013 we will strive to create even greater opportunities for innovation and discovery, sharpening our focus on improving neuromodulation education and identifying the most relevant strategic priorities for our members, while also providing unique product offerings to meet your needs now and in the future.

Neuromodulation is a growing multidisciplinary specialty that holds great potential for impacting patient care, research, and technology development. As the premier organization representing our specialty, NANS is dedicated to our mission to facilitate multidisciplinary collaboration among clinicians, scientists, engineers, and others to advance neuromodulation through education, research, innovation, and advocacy. Through these efforts, NANS seeks to promote and advance the highest quality patient care.

Membership

Our society continues to experience tremendous growth, with membership increasing nearly 150% since 2007. As of February 2013, there were close to 900 NANS members. This expansion reflects the increasing diversity in neuromodulation specialties as well as the massive opportunities available in scientific discovery and evolving neuromodulation technologies and therapies. NANS members represent this wide variety of specialties, including pain medicine, anesthesiology, neurosurgery, neuromodulation, neurology, rehabilitation medicine, urology, basic science, and orthopedics and engineering.

The success of NANS has always been linked to our members and volunteers. It is you who provide the inspiration, dedication, hard work, and spirit of service to

our society and specialty. One way you can become more involved is to participate in one of our 12 standing committees, listed at right. Through their activities, these committees advance the mission of our society and promote the field of neuromodulation. I encourage you to visit www.neuromodulation.org and get in touch with the committee chairs listed, or contact Chris Welber, NANS executive director, at cwelber@neuromodulation.org. Committee membership is open to all NANS members.

Socioeconomic Issues

Public policy and advocacy is critical to the advancement of our specialty. The NANS Advocacy Committee, led by Drs. David Kloth, Josh Prager, and B. Todd Sitzman, among others, plays an important role in influencing socioeconomic issues that impact neuromodulation practitioners and policy. NANS's dedicated group of expert professionals work tirelessly to represent the interests of our members and patients with regard to neuromodulation coding and reimbursement, quality improvement and outcomes, improving patient access to neuromodulation therapies, and many other areas. Our society interacts with the US Congress, lawmakers, government agencies, medical associations, insurance companies, and other parties involved in the ever-changing healthcare environment.

Collaboration and partnership with other societies is crucial for the collective advancement of our specialty. Our leadership works closely with the American Society of Stereotactic and Functional Neurosurgery and the Council of Pain Physician Specialty Societies. Together with these other societies, we are hoping to formalize a comprehensive agenda that will allow for continued and sustained collaboration on all of the issues that our members and specialties are facing.

NANS COMMITTEES

- Advocacy and Policy
- Annual Meeting Planning
- Bylaws Review
- Education
- Emerging Technology Assessment
- Finance
- Foundation and Development
- Membership
- Public Relations
- Research
- Scientific Program
- Website

IN THIS ISSUE

Features

Article of Interest	3
NANS 16th Annual Meeting...	4
Review of the 2012 Spinal Cord Stimulation Workshop.....	5
Inaugural NANS I ³ Forum Highlights	6
Meetings of Interest.....	7
News from the INS	7

continued on page 2



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President's Message *continued from page 1*

Annual Meeting

The NANS 2012 Annual Meeting in Las Vegas was our largest gathering to date with a record 1,112 attendees. I would like to thank the organizers of this highly successful meeting: Drs. Ashwini Sharan, David Caraway, Salim Hayek, Lawrence Poree, Joshua Prager, and Alon Mogilner. Among the meeting highlights were a wide range of educational offerings including multiple premeeting symposium and workshops, as well as three concurrent afternoon tracks on Friday and four on Saturday. The meeting had more than 80 invited speakers, including many of the most respected and renowned practitioners, scientists, and engineers in the field. This year, we provided additional opportunities for platform presentations of original science by authors who submitted abstracts. Our inaugural NANS I³: Invention, Investment, and Invigoration premeeting symposium was highly successful. More than 200 attendees, including physicians, researchers, engineers, investors, and industry members, discussed the latest technologies and innovations and the future of our field. The key lectures and highlights of our meeting will be available on our website for you to view. Please read more about the recent NANS Annual Meeting on page 4.

I would also like to encourage each of you to consider attending the 11th International Neuromodulation Society (INS) World Congress, to be held June 8-13 at the Estrel Hotel in Berlin, Germany. The INS meeting will convene experts from across the world to discuss the latest science and innovations in neuromodulation and will also provide opportunities to meet and interact with colleagues from the various international INS member chapters.

NANS Foundation

In the fall of 2012, the NANS Board of Directors approved the creation of the NANS Foundation,

a new not-for-profit foundation providing resources, support, and expertise to foster the growth and development of

- neuromodulation education
- neuromodulation fellowships and training opportunities
- development of practice guidelines that promote patient safety, effectiveness, and appropriate patient selection for neuromodulation therapies
- clinical and basic science research to improve the understanding of the mechanisms, scope, and evidence-based support for the use of neuromodulation therapies.

We are excited about the scope of this new foundation and the many possibilities it creates, and we look forward to providing you with more details and opportunities to participate.

Looking Ahead

Collaboration and partnership between NANS, neuromodulation practitioners, scientists, engineers, our partner societies, and industry is important to foster innovation and the development of new technologies and neuromodulation therapies. I want to express my appreciation to each of you for your support of NANS and your efforts as we work together to advance the field of neuromodulation and provide continually improving services to our patients. As always, please contact me, any of our board members, or office staff with ideas, questions, or concerns at info@neuromodulation.org. **N**

Ali R. Rezai, MD

NANS Members in the News

Peter S. Staats, MD, was highlighted in the January 2013 issue of *Pain Medicine News* for receiving the Outstanding Pain Physician Award at the 2012 Pain Medicine Symposium in Jersey City, NJ. Dr. Staats is the cofounder of Premier Pain Centers and is internationally known for his work developing minimally invasive procedures to treat pain disorders.

NANS Advisor to the Board **Joshua Prager, MD MS**, was featured in a January 2013 *Neurology Reviews* article covering his lecture on compounding pharmacies during the 2012 NANS Annual Meeting. In his lecture, Dr. Prager argued that medical professionals must use precaution when prescribing compounded medications by thoroughly evaluating the source of the compounded medications.

Pick up the January copies of *Pain Medicine News* and *Neurology Reviews* to read more about these NANS members.

Multicolumn Lead Spinal Cord Stimulation for Failed Back Surgery Syndrome

Zion Zibly, MD

One of the most frequent causes of chronic low back pain is failed back surgery syndrome (FBSS). This syndrome continues to be a health problem, although major advances have been made in understanding the pathogenesis and mechanical alterations causing the pain.

Although spinal cord stimulation (SCS) has been used and proved to be beneficial in treating radicular pain, its use to achieve axial pain relief has been less effective. The debate about whether SCS should be used in the treatment of FBSS continues in the face of the confounding data and guidelines published by different groups.^{1,2}

Recent technological developments have led companies to design new surgical implantable leads with an increased number of columns and leads, which harbor the ability to produce transverse electrical fields. This offers practitioners the ability to achieve changing electrical fields across the dorsal column.³

Riguard and colleagues⁴ recently published their clinical experience with multicolumn SCS lead implantation for the treatment of FBSS at the Poitiers University Hospital in France. The results were published in *Neurosurgery*. In this observational study, electrode configuration data from 11 FBSS patients who were implanted with a multicolumn lead between May and November 2009 were analyzed. These 11 patients were chosen out of 54 patients who reported to the pain clinic and had a positive prior transcutaneous electrical nerve stimulation trial, thus qualifying them for surgical implantation of a multicolumn lead stimulator. All 11 patients presented with significant back and leg pain. The exclusion criteria included psychological contraindication, mechanical cause of low back pain, and active infection. Also, patients' conus medullaris and lumbosacral joint were assessed with magnetic resonance imaging.

The surgical procedure was performed with the patients under general anesthesia in the prone position utilizing a midline intralaminar approach with the Quadrant (Quadrant, Medtronic, Inc.) system. The multicolumn electrode (5-6-5) was placed over the appropriate corresponding spinal segment. Following a 6-day trial, patients who reported pain relief > 50% underwent a voltage-controlled pulse generator implantation. The stimulation program was tailored to each patient to attain the best pain relief with both a lumbar and a radicular component.

Stimulation parameters were programmed and evaluated systematically for all patients. Sixteen polarities were activated in order to obtain the widest range of monopolar possibilities. The configurations that were used were tripolar longitudinal (+-+). Pulse lengths were 60, 210, and 450 microseconds with increasing amplitude until the patient reported bilateral back paresthesia and leg territory coverage. Stimulation frequency was constant with all patients at 90 Hz.

The study evaluated the following parameters: overall satisfaction index, overall pain (VAS), leg pain (VAS), and back pain (VAS). These parameters were evaluated immediately following surgery, at 6 weeks, at 3 months, and at 6 months. In addition, the investigators evaluated the Oswestry and EUROQOL 5D indexes postoperatively and at 6 months.

At 6 months follow-up, all 11 patients reported satisfaction and were wholeheartedly willing to undergo surgery again. There was a significant relief of lower back pain in nine patients (81.8%). VAS scores at 6 months showed 72.6% reduction of global pain, 93.4% reduction of leg pain, and 80.8% reduction of back pain. The Oswestry score decreased in all 11 patients from 63.64% to 11.81%. General quality of life assessment by the EUROQOL 5D score showed improvement > 80% during the study. Most of the patients (81.8%) gained bilateral lumbar paresthesia with multicolumn stimulation configuration, and seven patients (63.3%) obtained bilateral dorsolumbar paresthesia. These results were superior when compared with monocolumn stimulation configuration in the same patients.

The outcomes of this pilot study confirm that multicolumn, multipolar SCS has the potential as a therapeutic opportunity to attain bilateral dorsolumbar and radicular pain relief for FBSS patients. It seems that multipolar electrodes have better neurostimulation ability by directing the stimulation fields both at the surface and within the dorsal column, thus gaining paresthesia coverage of the dorsolumbar region.⁴ The study should, however, be interpreted carefully due to several limitations, such as small sample size and short follow-up period.

To conclude, multicolumn, multipolar SCS presents a promise in the treatment of FBSS, a challenging debilitating syndrome. Nevertheless, larger, double-blind, prospective studies are warranted to further evaluate this approach. **N**

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NANS 16th Annual Meeting: Overview and Highlights

Chima Oluigbo, MD FRCSC



The NANS 16th Annual Meeting, “From Innovation to Reality,” was held at the Wynn Las Vegas in Las Vegas, NV, December 6-9, 2012. Three preconference courses were held on Thursday, December 6, including the NANS Spinal Cord Stimulation and Intrathecal Pump Course for Fellows and the Neurology Course. There were 90 attendees at these courses, including neurosurgery residents, pain fellows, and neurology residents. During the courses, didactic instruction and hands-on training on cadaveric models were provided to fellows on the principles, techniques, and nuances of neuromodulation procedures for different indications, spinal cord stimulation, suturing, anchoring leads, implantation of paddle leads, trigeminal nerve rhizotomy, and percutaneous cordotomy by a very experienced faculty. Feedback from course attendees was very favorable.

The last preconference course, which had 33 participants, was a workshop for nurses, physician assistants, and allied healthcare professionals. Topics discussed by the multidisciplinary faculty included patient selection, trouble shooting, and complication avoidance for different neuromodulatory procedures such as spinal cord stimulation, intrathecal drug delivery pumps, peripheral nerve stimulation, and deep brain stimulation.

Day 1: Friday

The main meeting began on Friday, December 7, 2012. It was co-chaired by Joshua P. Prager, MD MS; David Caraway, MD PhD; and Lawrence Poree, MD PhD. The scientific meeting cochairs were Ashwini D. Sharan, MD; Salim Hayek, MD PhD; and Alon Mogilner, MD PhD. The meeting offered 3 days of general scientific sessions and concurrent sessions, with outstanding speakers presenting lectures on neuromodulation and its emerging applications.

The general session on day 1 focused on the scientific basis for neuromodulation as well as issues related to neuroimaging for functional disorders including pain. Leading speakers in the field presented lectures on unfolding mechanisms of pain syndromes and neurostimulation, defining the scientific basis for patient selection, and the results of translational research in neuromodulation. Marwan Baliki, PhD, presented an interesting, well-reviewed lecture on functional neuroimaging in chronic pain. During this session, the presidential address was presented by Ali Rezai, MD, who talked about some of the current challenges and the need for collective efforts to advance the field. In the afternoon, concurrent sessions were held on peripheral nerve stimulation, brain stimulation, and

best clinical practices. During these afternoon sessions, selected top abstracts related to brain and peripheral nerve neuromodulation and intrathecal therapies were presented.

Day 2: Saturday

The general session on day 2 included excellent talks on closed loop stimulation by Hagai Bergman, MD DSc, and the basic science and neuromodulation of pelvic visceral pain by Gerald Gebhardt, PhD, and Ghislain Devroede, MD. The special lecture was presented during this general session by keynote speaker Clay Marsh, MD. Another lecture on music and the brain was presented by Kamal Chemali, MD PhD. Both special lectures were intriguing and very enlightening. Also during this session, the Lifetime Achievement Award was presented to Bengt Linderöth, MD PhD, and Joshua Prager, MD MS.

The concurrent afternoon sessions focused on neuromodulation in neurorehabilitation, building a neuromodulation practice, targeted drug delivery, and gastrointestinal/genitourinary issues. Selected top abstracts related to neuromodulation in neurorehabilitation, intrathecal therapies, and pelvic neuromodulation were presented, and talks by different speakers on marketing and reimbursement issues took place.

Day 3: Sunday

The general session on day 3 covered spinal cord stimulation. During this session, selected top abstracts in the field of spinal cord stimulation were presented as well as lectures on advancing the field.

More than 1,100 individuals from the United States and 24 countries attended the annual meeting, and a record 420 exhibitor staff participated. This surpassed attendance at last year's meeting, making the 2012 meeting the largest in the history of NANS and the largest of any neuromodulation society in the world.

By all indications, the NANS 16th Annual Meeting was a resounding success. The increased participation is evidence that interest and enthusiasm in neuromodulation continues to grow exponentially. This interest will help ensure that research and innovations to improve the quality of life of patients continue to receive the attention they deserve. The NANS Board of Directors wishes to express its appreciation to our members, sponsors, and participants, who helped make the 2012 annual meeting a success. We heartily invite you to the 17th NANS Annual Meeting, which will take place December 5-8, 2013, in Las Vegas. **N**



Review of the 2012 NANS Spinal Cord Stimulation and Intrathecal Pain Therapy Workshop

Each year, NANS hosts a spinal cord stimulation (SCS) workshop focusing on neuromodulation for the pain and neurosurgery communities the day before the start of the annual meeting. The 2012 NANS SCS workshop was revamped under the new course director, Steven Falowski, MD. Dr. Falowski is a member of the NANS faculty, webmaster for the society, and co-editor of the newsletter. He is presently head of functional neurosurgery at St. Luke's University Health Network in Bethlehem, PA.

The 2012 workshop drew the largest turnout to date and featured the integration of neuromodulation among various specialties, including neurosurgery, pain management, and neurology. The workshop offers didactic sessions and hands-on cadaver instruction. This year's course had more than 200 applications for the 55 available slots. Applicants were chosen from a random lottery. In addition, the workshop was integrated with a concurrent neurology workshop for neuromodulation, which had more than 40 applicants. This workshop was directed by Alon Mogilner, MD PhD, and Michael Pourfar, MD, from New York University. The 2012 NANS SCS workshop was one of the largest international courses available and is one of the only known courses to integrate the three specialties of neurosurgery, pain management, and neurology.

Geared toward neurosurgery residents and fellows in pain management, the SCS workshop focused on all aspects of SCS, including techniques for implantation, complications, and troubleshooting, as well as percutaneous versus placement via surgical laminectomy. In addition, this year was the first year intrathecal pain pump therapies were addressed in the course. Ten cadaver stations were integrated with the didactic lectures examining implantation, techniques, and some of the newest methods available such as refilling of pumps using ultrasound. Other topics included destructive procedures, such as cordotomy and trigeminal rhizotomy for facial pain.

The neurology course focused on neuromodulation therapies in clinical practice. Topics included spinal cord stimulation for pain, therapies for headache, deep brain stimulation, and therapies for spasticity. Further didactics included integration of neuromodulation into a neurology practice, programming of devices, and billing and coding of the therapies. Didactic sessions were also reinforced with hands-on cadaver demonstrations.

This year saw an integration of these three specialties and two courses. The resulting course included a combined lecture series, as well as cadaver demonstrations by leaders in the field. A morning session involved a live demonstration on a cadaver for percutaneous SCS placement to all three specialties with the ability for interaction with the audience and presenting physicians. A lunchtime combined series included an open panel discussion, during which all three specialties were able to interact, ask questions, and focus on unifying neuromodulation among the specialties. Focused topics included troubleshooting of the therapies and the multidisciplinary approach to these patients.

Leaders in the field of neuromodulation and NANS faculty were able to present and discuss the latest therapies, and funding was supplied by multiple companies, leading to a well-organized, unbiased approach to these therapies. NANS extends a special thanks to the course faculty: Dr. Falowski; Parag Patil, MD PhD, co-director; Leonardo Kapural, MD PhD, co-director; Marshall Bedder, MD; Mehul Desai, MD; Salim Ghazi, MD; Michael Gofeld, MD; Michael Oh, MD; Chima Oluigbo, MD; Jason Pope, MD; Michael Pourfar, MD; Ahmed Raslan, MD; Joshua Rosenow, MD; Joel Saper, MD; S. Matthew Schocket, MD; Binit Shah, MD; Alon Mogilner, MD; James North, MD; Michael Saulino, MD; Joshua Wellington, MD; and Chen Wu, MD.

Attendees received a flash drive with the presented didactic sessions and contact information for faculty. The course was recorded and will be added to the education portion of www.neuromodulation.org. **N**

Inaugural NANS I³ Forum Raises Key Issues Facing Field



Among the new additions to the 2012 NANS Annual Meeting was the inaugural NANS I³: Invention, Investment, and Invigoration Forum. For a number of years, the clinical field of neuromodulation has seen challenges, as noted by then-president of NANS, Jaimie Henderson, MD, in 2008: “Although I am not prone to alarmist sentiment, it appears that neuromodulation is under assault, and we must fight vigorously to help our patients maintain access to the therapies they need.”

In 2009, the NANS president at the time, Robert Foreman, PhD, took on the task of advancing the cause of neuromodulation by forging important relationships with other societies and undertaking other initiatives. The innovative NANS I³ session is the brainchild of NANS President Ali Rezai, MD; Scientific Program Chair Ashwini Sharan, MD; and NANS Past-President Joshua Prager, MD, and continues the NANS vision of finding positive ways to promote neuromodulation as a valuable therapy option for patients.

The first annual NANS I³ Forum brought together diverse and esteemed faculty representing clinical medicine, industry, academia, regulatory agencies, and the investment community to take a hard look at underlying challenges to the continued development of neuromodulation and, most importantly, discuss what can be done to advance the field. Mark Carlson began the session with a fascinating review of the history of cardiac devices and lessons learned for the developing neuromodulation space. Dana Mead, MBA, provided an investor’s perspective on today’s issues, and raised what would become an important theme: the importance of clinical evidence in advancing the field. Presentations on technology addressed the role of improved electrodes, physiological data, novel device powering methodologies, drug pumps, and magnetic resonance imaging

compatibility. Speakers discussed new directions in stimulation, primarily very high-frequency stimulation and the clinical benefits provided, as well as the advantages in sensing signals from the spinal cord to improve patient outcomes. Phantom limb pain, asthma, sleep apnea, and cluster headache were some emerging indications covered. The mix of small companies (represented by Arnol Soin, Ben Pless, Jeff Hendricks, Brett Wingeier, Laura Tyler Perryman, and Michael DeMane) and industry leaders (Eric Fain, Maulik Nanavaty, and Tom Tefft) was successful in providing a broad scope.

The involvement of representatives from regulatory agencies and international perspectives (Dan Schultz, Ibim Tariah, Mattias Kyhlstedt) was of considerable interest, and it was clear that this was an initiative that could be expanded in subsequent years. In addition, presentations on failed clinical studies and the difference between clinical and regulatory success demonstrated the difficulties of bringing new therapies to market.

The NANS I³ session was a huge success. It was overbooked, with standing room only throughout the day and participation by an engaged audience. In addition to the excellent presentations by the faculty, co-chairs Ashwini Sharan, MD; Salim Hayek, MD; and Ben Pless were instrumental in the success of the session as were the very capable moderators for the sessions: Kathy Chester; Eric Grigsby, MD; Mir Imran; Peter Konrad, MD PhD; Robert Levy, MD PhD; Dana Meade, MBA; Richard Penn; Ben Pless; Ali Rezai, MD; and Michael Stanton-Hicks, MD. In addition, the support of the NANS I³ Planning Committee was much appreciated (Eric Grigsby, MD; Brian Kopell, MD; Joshua Prager, MD; and Tom Tefft). **N**



Meetings of Interest

NANS members are encouraged to attend these meetings of interest presented by other pain, spine, and neurology associations. Please contact the listed organizations for more information.

February

CPS 13th Annual Scientific Conference

Canadian Spine Society
February 27-March 2, 2013
Mont Tremblant, QC, Canada
www.spinecanada.ca

March

2013 Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves

American Association of Neurological Surgeons and Congress of Neurological Surgeons
March 6-9, 2013
Phoenix, AZ
www.spinesection.org

8th Annual Meeting of the NSANZ

Neuromodulation Society of Australia and New Zealand
March 17, 2013
Canberra, Australia
www.neuromodulation.com/australia

April

ISASS 13th Annual Conference

International Society for the Advancement of Spine Surgery
April 3-5, 2013
Vancouver, BC, Canada
www.isass.org

AAPM 29th Annual Meeting

American Academy of Pain Medicine
April 11-14, 2013
Fort Lauderdale, FL
www.painmed.org

2013 Global Spine Conference

AOSpine International
April 4-6, 2013
Hong Kong, China
www.globalspinecongress.org/default.asp

2013 AANS Annual Meeting

American Association of Neurological Surgeons
April 27-May 1, 2013
New Orleans, LA
www.aans.org

May

WSSFN 16th Quadrennial Meeting

World Society for Stereotactic and Functional Neurosurgery (WSSFN)
May 27-30, 2013
Tokyo, Japan
www.wssfn.org

APS 32nd Annual Scientific Meeting

American Pain Society
May 8-11, 2013
New Orleans, LA
www.APSScientificMeeting.org

News from INS, Your Global Society

Nancy Garcia, International Neuromodulation Society Public Education and Website Manager



Since December 2011, the International Neuromodulation Society (INS) has been pursuing a public education strategy by augmenting explanatory materials on its website for all 1,700 members who belong to the global organization or one of the 15 chapters.

The materials have been prepared in English on the INS website, www.neuromodulation.com. Please let INS Public Education and Website Manager Nancy Garcia know if translated materials would be helpful in your practice and if you might like to assist in translation. Contact Nancy at ngarcia@neuromodulation.com for more information.

All NANS members are automatically members of the INS, which publishes the journal *Neuromodulation: Technology at the Neural Interface* (now MEDLINE indexed) and presents a biennial world congress on all aspects of neuromodulation. NANS members are invited to attend the INS Congress in Berlin June 8-13, 2013, and to submit articles for publication to *Neuromodulation*. Details are available at www.neuromodulation.com.

Members may download and customize special versions of the INS patient fact sheets by logging in to the INS members-only area. These versions of the patient fact sheets have fields for listing clinic contact information. Visit the website for a full list of available fact sheets.

In addition, with leadership from Konstantin Slavin, MD; Giancarlo Barolat, MD; Timothy Deer, MD; Elliot Krames, MD; and other society members, INS began offering moderated question-and-answer sessions online with recognized experts in 2012. The interactive discussion forum takes place in the INS website's members-only section, where past discussions led by the members listed above have been archived. NANS members are invited to participate in the INS expert panels and read past archived discussions. The most recent was led by Krishna Kumar, MD FRSCS, on "Spinal Cord Candidacy." An expert panel led by Leonardo Kapural, MD PhD, on neuromodulation for visceral pain is expected to follow in March. For the most current announcements and login directions, visit www.neuromodulation.com/expert-panel-announcement.

The global organization appreciates contributions from the North American chapter that help all neuromodulators and welcomes NANS members' use of the INS resources described here. **N**



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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.



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