



NANS News

Vol. 1, No. 2 • Fall 2006

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Contributions Wanted!

Have you recently published a book or paper?
Do you face particular challenges in your practice or research environment?
Are you passionate about a topic in neuromodulation?
Submit an article to the newsletter editor today!

President's Message



The coalition for patient coverage for neuromodulatory procedures has continued to make progress. Richard North, MD, and Jane Ball Shipley are completing the incredible process of developing practice parameters for neurostimulation for neuropathic pain. This detailed evidence-based document contains input from not only a comprehensive list of physician organizations, but also from industry and third-party payers. In recent months, the last of physician organizations with implanting physicians have joined us. We plan to proceed with publication of this document in a MedLine peer-reviewed journal, so that carriers will accept these guidelines for coverage of the procedures that our patients require.

A second initiative on parameters for neurostimulation for other indications is being initiated by Tim Deer, MD, and Robert Levy, MD PhD. We hope over the next 2 years to complete guidelines for intrathecal therapy for pain, as well as intrathecal therapy for movement disorders. The goal is to produce four sets of guidelines to cover various neuromodulation indications.

The coalition represents an incredible collaboration between physicians and industry that will move our field forward. We are grateful to industry for the financial support that allows this activity. We recently appointed an interim director while the search continues for a permanent executive director.

David Kloth, MD, immediate past president of the American Society of Interventional Pain Physicians (ASIPP), has been working with Medicare to update reimbursement protocol for intrathecal medications. NANS has participated in this process and welcomes input.

This year celebrates the 10th anniversary of our scientific meetings. On this occasion, Ali Rezai, MD, has assembled an extraordinary faculty at an exciting venue for a special program, "Neuromodulation: Coming of Age." The program features a track for both beginning and advanced neuromodulators. Much is designed for those outside the field to help them to acquire insight into the rationale for neuromodulatory procedures. Lectures will be in-depth and cover fundamental scientific topics by world leaders in the field. Many of the faculty have not presented at our annual meeting previously because we are examining both new topics and prior topics more rigorously.

Unique features include abstracts presented as video posters and a special session, "Best Practices for Advanced Techniques in Neuromodulation." Many of the sessions will be highly interactive, so that attendees can direct some of their own learning experience.

I have personally disseminated information on this program at meetings of AAPM, APS, ISIS, and ASIPP. We are seeing growing enthusiasm based on both the venue and the format of the program. Register early to ensure availability of rooms at the highly discounted rate we have been provided. We hope to see all of you at the grand gala celebrating 10 years of NANS programming. 🌐

Joshua P. Prager, MD MS
President

Neuromodulation: Coming of Age

10th Annual North American Neuromodulation Society Meeting
December 7–10, 2006 • Wynn Las Vegas

Conference Preview inside!

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NANS News

Editor in Chief

Jaimie M. Henderson, MD
henderj@stanford.edu

NANS Staff

Executive Director

Vanessa Mobley, CMP

Senior Manager,

Professional Relations

Sheila Lee

Managing Editor

Amy R. Barbour

Graphic Designer

Sonya L. Jones

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Classified and display rates are available; please contact NANS Senior Manager Sheila Lee at 847/375-4760, fax 877/594-6704.

Preview of the 10th Annual NANS Meeting

The 10th annual meeting of the North American Neuromodulation Society (NANS) promises to be the biggest, best, and most exciting meeting in our society's history. Situated at the spectacular Wynn Hotel on the Strip in Las Vegas, this year's meeting will combine world-class science with the all the energy of this unique city. To celebrate the tremendous growth in our specialty, the meeting's theme is, "Neuromodulation: Coming of Age."

The Program

The scientific program committee, headed by Ali Rezai, MD, has put together a tremendous program spanning all aspects of neuromodulation. The program will kick off Thursday afternoon with both basic and advanced workshops on neuromodulation for pain. Friday will begin with the latest research in basic mechanisms of neuromodulation and features presentations on stem cell and gene therapy neuromodulation strategies, clinical trial design in neuromodulation, neuromodulation of the autonomic nervous system, and point-counterpoint sessions on neurostimulation for pain. On Saturday, an in-depth discussion of intrathecal therapies will open the morning session, followed by the Presidential Address. In the afternoon, a wide-ranging session on brain and cranial nerve stimulation for movement disorders, psychiatric disorders, pain, epilepsy, and stroke will be presented. Also on Saturday afternoon, a special session will bring together industry representatives and clinical researchers for a unique discussion on optimizing patient success in neurostimulation. The meeting will conclude Sunday after a special symposium on cutting-edge applications in neuromodulation.

A special 10th anniversary offer is being extended to conference participants who are not currently members of NANS. Each nonmember registrant will receive a 1-year NANS membership free of charge. We hope that all nonmembers will take advantage of this incredible opportunity to join NANS, receive the journal *Neuromodulation*, and enjoy all the benefits of NANS membership for no additional cost.

The Venue: The Wynn Hotel

(www.wynnlasvegas.com)

The Wynn is the Strip's newest hotel, opened in 2005 to great acclaim. With more than 2,700 luxury guest rooms and 111,000 square feet of casino space, as well as 18 restaurants, shopping, an onsite Ferrari-Maserati dealership, and a 10-hole golf course, the Wynn is a spectacular site for the 10th annual NANS meeting.

A \$130 million man-made mountain, rising 7 stories, complete with pine trees and other landscaping, hides the lower levels of the resort from

Strip passers-by. From inside the resort, guests can enjoy the mountain, waterfalls (some as high as 100 feet), dancing fountains, and other special effects. The hotel's main guest-arrival area features a garden adjacent to the registration desk with a view of the mountain, which also includes a 3-acre man-made lake.

Natural light flows into the resort from an atrium above the garden (a much larger version of the conservatory at Bellagio) and through skylights in the ceilings of the curved walkways that lead past the Wynn Las Vegas restaurants and retail area.

"Le Rêve"—The Show at Wynn Las Vegas

An aquatic spectacular performed in a domed theater in the round, "Le Rêve—A Small Collection of Imperfect Dreams," is the first of its kind in Las Vegas. Uniquely intimate and spectacularly personal, no seat is more than 40 feet from the action. The show is a completely new form of staging and artistic performance, where the theater and water are alive with a translucent energy.

"My aim with 'Le Rêve' is to create an entirely new universe, to transport everyone into a world where the theater, performance, and audience become one and the same reality," says Franco Dragone, the internationally acclaimed director, whose credits include "O, Mystère" and "Celine Dion: A New Day."

A special cast of artists, athletes, and characters has been discovered from around the world for this show and will bring the dreams to life nightly.

Shopping

Shopping in Las Vegas is a unique experience that goes beyond merely looking for merchandise. Stroll through Grand Canal Shoppes at the Venetian and you are transported to Venice, Italy, with a changing sky overhead and gondolas plying the indoor canal alongside a large variety of quaint specialty shops. Shop the Desert Passage at the Aladdin and follow the ancient Mediterranean spice routes through the Lost City, the Morocco Gate, and the India Gate, finally ending up at the Merchant's Harbor, where a 155-foot ship is docked and indoor rainstorms happen every half hour! Or visit the Forum Shops at Caesar's Palace, where hundreds of stores await, including specialty shops with stunning, one-of-a-kind pieces.

Golf

The Wynn Hotel features a 10-hole golf course on the hotel grounds. There are dozens of golf courses in the greater Las Vegas area.

To see a full listing, go to <http://www.lasvegasgolf.com/courses/lasvegas/map.htm>. 

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Noon–7 pm

Registration

2–5 pm

Preconference Workshops

Neuromodulation for Pain: The Basics

This workshop will cover fundamentals of the intrathecal infusion pump and spinal cord stimulation procedures. Expert faculty will demonstrate the current neuromodulation implantable devices and techniques of implantation. Trouble shooting and complication avoidance will be discussed. Case studies will be presented to facilitate interactive participation with the audience.

Marshall Bedder, MD FRCP

Timothy Deer, MD

Richard Osenbach, MD

Salim Hayek, MD

Joshua Rosenow, MD

Oren Sagher, MD

Advanced Neuromodulation for Pain

This case-based interactive workshop will feature highly experienced faculty. Difficult cases will be presented as a means to discuss alternative techniques. Techniques will be described relating to the most appropriate ways to reach difficult targets. Theory will be applied to clinical applications. Approaches to complication prevention will be presented. There will be ample opportunity for advanced implanters to interact with the faculty to discuss interesting cases and approaches.

Joshua Prager, MD MS

Elliot Krames, MD

Claudio Feler, MD

Richard North, MD

Jaimie Henderson, MD

5:30–7 pm

Opening Reception with Exhibits and Posters

6 am–5:30 pm

Registration

7–8 am

Continental Breakfast with Exhibits and Posters

8–8:10 am

Welcome

Joshua Prager, MD MS

Ali Rezai, MD

Moderators: Marshall Bedder, MD FRCP

Joshua Prager, MD MS

General Session

8:10–8:25 am

Neuromodulation: Definition, Whom Do We Serve?

Elliot Krames, MD

8:25–9:05 am

Mechanism of Neurostimulation: Gate Control Revisited

Allen Basbaum, PhD

9:05–9:30 am

Fundamentals of Electrical Stimulation

Warren Grill, PhD

9:30–10 am

Engineering Consideration: Electrode Design, Neural Sensing, and Pulse Generators

P. Hunter Peckham, PhD

10–10:50 am

Refreshment Break with Exhibits and Posters

Moderators: Marshall Bedder, MD FRCP

Joshua Prager, MD MS

10:50–11:15 am

Stem Cells and Gene Therapy Neuromodulation Strategies

Nicholas Boulis, MD

11:15–11:45 am

Meeting Chairman Address

Neuromodulation: Coming of Age

Ali Rezai, MD

11:45 am–1:30 pm

Luncheon Address

Presentation by the Director of the NIH Neural Prosthesis Program

Neural Prosthesis Program

Joseph Pancrazio, PhD

The Process of Innovation: From Ideas to Product

Moderator: Ali Rezai, MD

1:30–1:50 pm

Neuromodulation Clinical Trials: Design and Outcomes

Daniel Carr, MD

1:50–2:20 pm

Autonomic Nervous System: A New Frontier for Neuromodulation

Robert Foreman, PhD

2:20–3 pm

Neurostimulation for Hypertension

Neurostimulation for Atrial Fibrillation and Heart Failure

Marc Penn, MD PhD

3–3:45 pm

Refreshment Break with Exhibits and Posters

Moderators: Giancarlo Barolat, MD

Richard North, MD

3:45–4:15 pm

Neurostimulation for Pain: Oral Abstract Presentations

Session Moderator: Joshua Prager, MD MS

4:15–5:30 pm

Neurostimulation for Pain: Controversies, Point–Counter Point Session

Subcutaneous Stimulation: Needle Versus Open

Giancarlo Barolat, MD

Richard Weiner, MD FACS

Pulsed RF: Is It Neuromodulation?

Jaimie Henderson, MD

Elliot Krames, MD

Axial Pain Coverage:

One or Multiple Electrodes

Kenneth Alo, MD

Richard North, MD

Is SCS Effective for CRPS?

Krishna Kumar, MBBS MS FRCS (C)

Michael Stanton-Hicks, MD

6:30–10 pm

10th Anniversary Dinner Gala

Please indicate on your registration form if you plan to attend.

Please see Web site for updated speaker information.

6:30 am–5:15 pm

Registration

7–8 am

Breakfast Seminar*Neuromodulation Therapies: Behavioral Evaluation and Patient Selection*

Marilyn Jacobs, PhD

Please indicate on your registration form if you plan to attend.

7–8 am

Continental Breakfast with Exhibits and Posters**Moderators: Timothy Deer, MD
K. Dean Willis, MD****Plenary Sessions: Intrathecal Therapies**

8–8:15 am

Overview Algorithm for Admixtures of Intrathecal Medications

Samuel Hassenbusch, MD

8:15–8:25 am

Update on Ziconotide: To Mix or Not to Mix

Joshua Prager, MD MS

8:25–8:40 am

Research Update on Intrathecal Gabapentin

Richard Rauck, MD

8:40–9 am

How to Evaluate Endocrinopathy of Opioids

Daniel Carr, MD

9–9:15 am

Evaluation and Treatment of Intrathecal Granulomas

Robert Levy, MD PhD

9:15–9:45 am

*Intrathecal Therapies
Oral Paper Presentations*

9:45–10:30 am

Refreshment Break with Exhibits and Posters

10:30–11 am

**NANS Presidential Address
Annual Meeting***Award Presentations*

Joshua Prager, MD MS

11–11:30 am

Neuromodulation: Coding and Reimbursement

William Fehrenbach

John Hernandez, PhD

Barbara Raley

11:30 am–12:45 pm

**Corporate Satellite Lunch
Symposium***Rectifying Troublesome Data: A New Look at Conopeptides*

Supported by an educational grant from Elan Pharmaceuticals, Inc.

All registered meeting attendants will receive an invitation directly from the commercial supporter of this lunch symposium.

**Moderators: Nicholas Boulis, MD
Robert Levy, MD PhD****Plenary Sessions: Brain and Cranial Nerve Stimulation**

12:45–1:20 pm

Functional Brain Imaging: Neural Circuitry of Pain, Movement Disorders, and Psychiatric Disorders

Sean Mackey, MD PhD

Ali Rezai, MD

1:20–1:40 pm

Movement Disorder

Jaimie Henderson, MD

1:40–2:00 pm

Psychiatric Disorders

Ali Rezai, MD

2–2:20 pm

Pain

Andre Machado, MD PhD

2:20–2:40 pm

Epilepsy

2:40–2:55 pm

Stroke and Motor Recovery

Robert Levy, MD PhD

2:55–3:15 pm

Oral Paper Presentations

3:15–3:45 pm

Refreshment Break with Exhibits and Posters**Moderators: Nicholas Boulis, MD
Robert Levy, MD PhD**

3:45–4:15 pm

Brain Machine Interface

Gerhard Friehs, MD

Session Moderators: Joshua Prager, MD MS

Ali Rezai, MD

4:15–5:45 pm

**Interactive Industry/Audience
Session***Neurostimulation: Multiple Options for Patient Success*

Advanced Bionics Corporation

Advance Neuromodulation Systems, Inc.

Medtronic Neurological

Case Presentations

Jaimie Henderson, MD

Elliot Krames, MD

Richard North, MD

7 am–2 pm

Registration

7–8 am

Continental Breakfast**Moderators: Jaimie Henderson, MD
Elliot Krames, MD****Symposium: Best Practices for State-of-the-Art Neurostimulation**

This session will examine six general areas of use of neurostimulation for pain to describe best practices for these applications. Recognizing that there is growing use for new applications, it is incumbent upon the North American Neuromodulation Society to identify the safest and most efficacious manner to apply neurostimulation to these patient problems. Each topic will describe best practice techniques to achieve optimal efficacy and avoid complications. Secondary variables will be explored to provide understanding of the impact of neurostimulation on organ systems outside the nervous system.

Session Moderator: Marc Penn, MD PhD
Rick Boortz-Marx, MD

8–9 am

Chronic Refractory Angina and Peripheral Vascular Disorder

9–9:45 am

Stimulation and Neuromodulation for Genitourinary Disorders: Interstitial Cystitis, Pelvic Pain, Urinary Incontinence

Kenneth Alo, MD

Michael Stanton-Hicks, MD

9:45–10 am

Break**Moderators: Jaimie Henderson, MD
Elliot Krames, MD**

10–10:45 am

Stimulation for Visceral Pain and Gastrointestinal Pain: Pancreatitis, Inflammatory Bowel Disease, Others

Robert Foreman, MD

Leo Kapural, MD

Elliot Krames, MD

10:45–11:45 am

Stimulation for Headaches: Migraines, Cluster Headaches, Occipital Headaches, Others

Konstantin Slavin, MD

Richard Weiner, MD FACS

11:45 am–1 pm

Lunch Address*Neuromodulation: Ethical Considerations*

Joseph Fins, MD FACP

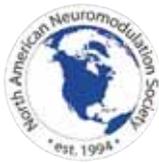
1–2 pm

Subcutaneous Stimulation for Chronic Pain: Facial, Back, and Others

Giancarlo Barolat, MD

Robert Levy, MD PhD

Richard Weiner, MD FACS



NANS 10th Annual Meeting

December 7-10, 2006 Wynn Las Vegas • Las Vegas, NV

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Please type or print clearly. Use a separate form for each registrant, duplicate as necessary.

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Check here if this will be your first NANS meeting (FTA). I would like more information about NANS membership. Yes No

In case of emergency, please contact _____

Daytime Phone (_____) _____ Evening Phone (_____) _____

MEETING REGISTRATION ONLY December 7-10, 2006

A

NANS Member M \$495
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Nonmember/Special* N \$595

**10th Anniversary registration special! Nonmembers get 1 year of NANS membership included with their meeting registration.*

Subtotal \$ _____

1-DAY MEETING REGISTRATION ONLY

B

Please indicate which day you will be attending the meeting.

Thursday/Friday (TF) Saturday (ST) Sunday (SU)

NANS Member MD \$200
Student/Trainee/Resident SD \$100
Nonmember ND \$300

Subtotal \$ _____

Ticketed Events

D

Please indicate whether you plan to attend any of these events, which are included in your full conference registration.

GALA Anniversary Gala Event, Fri, Dec 8, 6:30-10 pm
BW Breakfast Workshop, Sat, Dec 9, 7-8 am

Special Needs

E

SA I will require special assistance.
SDV I will need a vegetarian meal.
SDK I will need a kosher meal.

GST Guest Pass (includes Gala Event and access to Exhibit Hall)
Any spouse guest who is accompanied by a professional registrant may take advantage of this guest pass.
Please indicate guest pass quantity _____ @ \$150 each

C

Guest Name(s) _____

Subtotal \$ _____

REGISTRATION LATE FEE

F

All registrations postmarked after **November 3, 2006**, are subject to a late fee of \$100. Late Fee (LF) \$100

3 EASY WAYS TO REGISTER

Phone 847/375-4714

Fax 877/594-6704

Mail NANS, PO Box 839, Glenview, IL 60025-0839

If payment does not accompany this form, your registration will not be processed.

TOTAL

Please review your registration form *prior* to completing this box.

Total Amount Due (A or B) + C + F TOTAL \$ _____

After December 1, 2006, you must call to register or register on-site at the conference.

Cancellation Policy: All cancellations must be made in writing. A \$100 processing fee will be charged for all cancellations postmarked more than 14 days before the event. Refunds will not be made under any circumstances on cancellations postmarked after December 1, 2006.

NANS reserves the right to substitute faculty or to cancel or reschedule sessions due to low enrollment or other unforeseen circumstances. If NANS must cancel the entire meeting, registrants will receive a full credit or refund of their paid registration fee. No refunds can be made for lodging, airfare, or any other expenses related to attending the conference.

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To become a member, please complete the information below.

The North American Neuromodulation Society welcomes you. NANS would like to provide you with these membership benefits.

- *Neuromodulation*, the quarterly journal
- discounts at NANS educational programs
- automatic membership in the International Neuromodulation Society
- newsletters that focus on the latest information about neuromodulation, including stimulation, infusion, and radiofrequency systems and their applications

Payment must accompany the application.

Initial membership dues	\$285
Annual membership dues (after 1st year)	\$260

Send completed application with payment to:

North American Neuromodulation Society

4700 W. Lake Avenue
 Glenview, IL 60025
 847/375-4714
 Fax 877/594-6704

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My preferred mailing address is work home

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Special Symposium: Best Practices for State-of-the-Art Neurostimulation

The final day of the NANS scientific meeting is a symposium devoted to a particularly important topic. The growing use of neurostimulation techniques for indications demands a critical examination of use in these indications. Because randomized control studies have not been performed for these indications, there is a growing need to determine best practices for these procedures to produce optimal outcomes. This symposium will be directed specifically at indications, patient selection, and theory of use, including appropriate outcome measures and clinical pearls about technical aspects for the performance of these procedures.

We expect this to be an exciting opportunity for physicians who have been leaders in innovation for neurostimulation to share their experiences and opinions. The symposium is split into four sections: chronic refractory angina and peripheral vascular

disorder (the two largest indications in Europe for SCS); stimulation and neuromodulation for genitourinary disorders; stimulation for visceral pain and gastrointestinal pain; and stimulation for headaches. The genitourinary tract, including interstitial cystitis, pelvic pain, and urinary incontinence, will be addressed, not only from a pain standpoint, but from a urodynamic standpoint too.

In addition, noted ethicist Joseph Fins, MD FACP, will discuss ethics of neuromodulation, with a concentration on the advent of techniques that have not undergone the full rigor of randomized clinical trials, as part of Sunday's lunch address.

We have devoted a significant amount of time to this topic because of its import, and expect Sunday to be quite stimulating. We hope to see you at this special symposium.

The State of Government Affairs Coalition

Since December 2005, at the request of the State Government Affairs Coalition, in which NANS is a participant, Richard North, MD, has been preparing "Practice Parameters for the Use of Spinal Cord Stimulation in the Treatment of Chronic Neuropathic Pain."

This document covers the indications and outcomes of spinal cord stimulation (SCS) treatment and includes sections on patient selection, risk management, device options, and cost effectiveness. It is a compilation of the information needed to optimize SCS treatment and individualize patient care. To increase clinician confidence, each parameter, presented in the form of a practice question, is graded

on a continuum from *optional* to *recommended*. Supporting evidence from the scientific literature is provided in bibliographies linked to each topic. The document is undergoing external review, but will be published soon, both in print and a Web-based form.

Because practice parameters are—by nature—"never complete, always imperfect, and continually challenged...by new scientific investigation," they will be updated regularly.

Haines, S. J. (2002). Guidelines for the management of acute cervical spine and spinal cord injuries. [comments]. *Neurosurgery*, 50 (Suppl. 3), S-iv-v.

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The North American Neuromodulation Society and the Cleveland Clinic Foundation Center for Continuing Education acknowledge educational grants for partial support of this activity from:

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