

CONGRESS OF NEUROLOGICAL SURGEONS 75TH ANNUAL MEETING



Preliminary Program

ADVANCE REGISTRATION DEADLINE: SEPTEMBER 10, 2025

Register today at cns.org/2025



Join Us

Join us in sunny Los Angeles, CA, at the 2025 CNS Annual Meeting: CNS Connects, the premier neurosurgical conference focused on fostering meaningful connections in an increasingly complex and diverse field. Positioned at the intersection of innovation and tradition, this event celebrates the diversity of neurosurgeons—across different practices, geographies, and approaches—while reigniting the core values of humanism and compassion in medicine. Bring a guest or your family with you to:

- Experience Hollywood Magic -Explore the Hollywood Walk of Fame, tour Universal Studios, or visit the iconic TCL Chinese Theatre for a taste of the entertainment capital
- Relax on Scenic Beaches Enjoy the sun and surf at Santa Monica, Malibu, or Venice Beach, complete with boardwalks, bike paths, and breathtaking ocean views
- Explore Art & Culture Visit worldrenowned museums like The Getty, LACMA, and The Broad, or take in a live performance at the Walt Disney Concert Hall
- Dine & Discover LA's Food Scene -Savor everything from gourmet dining to famous food trucks, with diverse flavors reflecting the city's vibrant cultural mix



NEW FOR 2025!

Weekend Symposia:

- Special Symposium 02: Meeting of the Pacific Rim
- Special Symposium 04: The Fessler Legacy: Innovations in Minimally Invasive Spine Surgery
- SYM03B: Advances in Neuromodulation for Pain: Head to Toe
- SYM05: Operative Spine Video Theater: Unlocking the Essential Elements of Surgery
- SYM09: Shaping the Future of Neurotrauma: Lessons from the Past, Innovations for Tomorrow - Celebrating the 40th Anniversary of the Section on Neurotrauma and Critical Care
- SYM13B: Pediatric Spinal Deformity

Section Sessions:

- Section on Pain 1: Surgical Treatment of Rare Pain Disorders
- Section on Neurotrauma 1: Disparities in Neurotrauma
- Section on Spine 1: Personalized Spine Surgery
- Council of State Neurological Societies 2: Neurosurgery and Social Media
- Section on Neurotrauma 2: So the Acute Trauma is Over, Now What? An Overview of Post-Traumatic Neurostimulation and Nerve Transfers
- Section on Stereotactic and Functional Neurosurgery 2:
 Next-Generation Therapies: Harnessing Cell and Gene
 Technology in Epilepsy and Movement Disorders

Luncheon Seminars:

- M04: Biomedical Optic Imaging for the Brain Tumor Surgeon
- M06: Spinoplastics: A Collaborative Approach to Treating Complex Wound Issues in Spine Patients
- M07: Advances in the Management of Pineal and Intraventricular Pathology in Children and Adults
- T10: Keeping Neurosurgical Fingers on the Pulse of the Health System's Financial Footprint
- T11: Current Recommendations for Reversal of Antiplatelets and Anticoagulation
- T13: Evaluation and Treatment of Secondary Dystonia

I FTTER FROM THE PRESIDENT

Dear Colleagues,

I am thrilled to invite you to Los Angeles, CA for the 75th Annual Meeting of the Congress of Neurological Surgeons: CNS Connects. In an era of rapid advancements like AI, this meeting offers a unique space to explore cutting-edge technologies while preserving the human connection essential to patient care. As we celebrate 75 years of neurosurgical excellence, we will forge meaningful connections through dynamic sessions, engaging speakers, and a vibrant social scene.



In a city renowned for its iconic landmarks, dynamic culture, and energetic communities, you and your guests or family members can experience a rich tapestry of attractions—from world-class museums and diverse culinary delights to unforgettable entertainment and outdoor adventures.

At the meeting, you will engage with our honored guest, distinguished speakers, and peers who are all committed to advancing neurosurgical practice. Our agenda is designed to inspire dialogue, share transformative ideas, and explore how our collective expertise can lead to groundbreaking advancements.

I look forward to connecting with you in Los Angeles as we celebrate this historic milestone and chart a path toward an even brighter future in neurosurgery.

Sincerely, Daniel J. Hoh

Thank you to the faculty from our 2025 International Partner Societies



Brazilian Society of Neurosurgery



The Japanese Congress of Neurological Surgeons



Neurological Society of India

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PROGRAM AT-A-GLANCE

* Not eligible for CME Credit

SATURDAY, OCT	TOREP 11
8:00 am-4:15 pm	Symposia (SYM01-SYM06) Special Symposium 01: CNS-SRS Symposium on Spinal Deformity Special Symposium 02: Meeting of the Pacific Rim Special Symposium 03: Data Science and AI for Neurosurgeons
5:00-6:30 pm	CNS International, Resident, and Foundation Reception Location: JW Marriott Los Angeles L.A. LIVE - Pool Deck
6:30-8:30 pm	Dinner Seminar 01: Disruptive Technology in Spine Surgery Location: Perch LA
SUNDAY, OCTO	BER 12
7:30 am-2:30 pm	Wellness Retreat
8:00 am-4:15 pm	Symposia (SYM07-SYM15) Special Symposium 04: The Fessler Legacy- Innovations in Minimally Invasive Spine Surgery Special Symposium 05: Orbital, Periorbital, and Other Minimally Invasive Approaches to the Skull Base, A Collaboration Between CNS and NASBS Special Symposium 06: Transforming Neurosurgery through Technology: The Innovation Symposium Special Symposium 07: Meeting of the Americas
8:00 am-4:15 pm	Association of Neurosurgical Physician Associates (ANSPA) Annual 2025 CME Meeting Presented in Collaboration with the CNS
1:00-3:00 pm	Resident SANS Challenge Preliminary Rounds*
4:30-6:30 pm	General Scientific Session I
6:30-8:00 pm	Opening Reception Location: JW Marriott Los Angeles L.A. LIVE
MONDAY, OCTO	BER 13
7:00-8:30 am	Guidelines Sessions Sunrise Science Sessions
8:15 am-4:00 pm	Exhibit Hall open*
8:40-9:40 am	General Scientific Session II
9:40-10:40 am	Beverage Break in the Exhibit Hall*
10:00-10:30 am	Live Surgery in the Xperience Lounge*
10:40 am-12:10 pm	General Scientific Session II, continued
12:20-1:50 pm	Luncheon Seminars Industry Sponsored Lunch Seminars*
12:20-1:50 pm	Industry Device Innovation Showcases in the Xperience Lounge*
1:50-2:50 pm	Resident SANS Challenge Championship Round* Neurosurgery Publications: "Getting Published" Beverage Break in the Exhibit Hall*
2:05-2:35 pm	Live Surgery in the Exhibit Hall*
2:50-4:20 pm	Section Sessions and Oral Presentations
4:30-6:00 pm	Interactive Sessions
4:30-6:00 pm	Interactive Poster Presentation Session with Wine and Cheese Reception*
6:00-7:30 pm	Medical Student Town Hall*
7:30-9:30 pm	Dinner Seminar 02: Open Neurovascular Surgery: Shaping the Future Location: Mastro's Ocean Club

2 2025 CNS ANNUAL MEETING

PROGRAM AT-A-GLANCE

* Not eligible for CME Credit

TUESDAY, OCTO	BER 14
7:00-8:30 am	Guidelines Sessions Sunrise Science Sessions
8:15 am-3:00 pm	Exhibit Hall open*
8:40-9:40 am	General Scientific Session III
9:40-10:40 am	Beverage Break in the Exhibit Hall*
10:00-10:30 am	Live Surgery in the Xperience Lounge*
10:40 am-12:10 pm	General Scientific Session III, continued
12:20-1:50 pm	Luncheon Seminars Industry Sponsored Lunch Seminars*
12:20-1:50 pm	Industry Device Innovation Showcases in the Xperience Lounge*
1:50-2:50 pm	Resident SANS Challenge Championship Round
2:00-2:45 pm	Annual Business Meeting*
2:05-2:35 pm	Live Surgery in the Xperience Lounge*
2:50-4:20 pm	Section Sessions and Oral Presentations
4:30-6:00 pm	Interactive Sessions
5:00-6:30 pm	Interactive Poster Presentation Session with Wine and Cheese Reception*
WEDNESDAY, O	CTOBER 15
7:00-8:30 am	Guidelines Sessions Sunrise Science Sessions
8:15 am-1:30 pm	Exhibit Hall open*
8:40-9:40 am	General Scientific Session IV
9:40-10:40 am	Beverage Break in the Exhibit Hall*
10:00-10:30 am	Live Surgery in the Xperience Lounge*
10:40 am-12:10 pm	General Scientific Session IV, continued
12:20-1:50 pm	Luncheon Seminars
1:50-3:20 pm	Neurosurgical Medical Students Specialty Session*

All events held at the Los Angeles Convention Center unless otherwise noted.



Scan QR to view SPC contributors

REGISTER TODAY!

Scan QR to register



MEMBERS SAVE ON REGISTRATIONJOIN WHEN YOU REGISTER TODAY!

SUBSPECIALTY SESSION HIGHLIGHTS KEY

AP ADVANCED PRACTICE PROVIDER

CV CEREBROVASCULAR

GE GENERAL

IN INNOVATION

MS MEDICAL STUDENTS

PA PAIN

PE PEDIATRIC

PN PERIPHERAL NERVES

RE RESIDENT

SE SOCIOECONOMIC

SF STEREOTACTIC AND FUNCTIONAL

SP SPINE

TR NEUROTRAUMA

TU TUMOR

WI WINS

AP ADVANCE PRACTICE PROVIDER

SUNDAY

 Association of Neurosurgical Physician Associates (ANSPA)
 Fall 2025 CME Meeting Presented in Collaboration with the Congress of Neurological Surgeons

MONDAY

- Guidelines Sessions I: Low Grade Glioma
- Guidelines Sessions II: Clinical and Radiographic Follow-up for Treated and Untreated Brain Aneurysms
- Interactive Poster Presentation Session

TUESDAY

- Guidelines Sessions III: Cervical Spinal Cord Injury
- Guidelines Sessions IV: Brain Metastases
- Interactive Poster Presentation Session

WEDNESDAY

- Guidelines Sessions V: Brain Trauma Foundation Guidelines for the Management of Penetrating Traumatic Brain Injury (pTBI), Second Edition
- Guidelines Sessions VI: Myelomeningocele

CEREBROVASCULAR

SATURDAY

- Special Symposium 05: Orbital, Periorbital, and Other Minimally Invasive Approaches to the Skull Base, A Collaboration Between CNS and NASBS
- SYM02A: Ischemic Stroke: An Update on Indications, Devices, New Technology and Stroke Center Development
- SYM02B: Hemorrhagic Stroke: Update on Microsurgical and Endovascular Techniques

SUNDAY

- · SYM11A: Revascularization Indications and Techniques
- SYM11B: New Frontiers in Endovascular Surgery: Beyond Ischemic Stroke and Arterial Malformations

MONDAY

- Guidelines Sessions II: Clinical and Radiographic Follow-up for Treated and Untreated Brain Aneurysms
- M03: Integrating Augmented Reality and Robotics into Cerebrovascular Practice
- Section Session on Cerebrovascular Surgery 1: Vascular Malformations: Data and Dilemmas

- Interactive Session on Cerebrovascular Surgery 1: Complications in Cerebrovascular Surgery
- Dinner Seminar 2: Open Neurovascular Surgery: Shaping the Future

TUESDAY

- T11: Current Recommendations for Reversal of Antiplatelets and Anticoagulation
- Section Session on Cerebrovascular Surgery 2: Managing Aneurysms
- Interactive Session on Cerebrovascular Surgery 2: Bypass During the Endovascular Era, A Joint Review with the Pediatric Section

WEDNESDAY

W19: Chronic Subdural Hematoma Management

GE GENERAL

SATURDAY

- Special Symposium 02: Meeting of the Pacific Rim
- Special Symposium 03: Data Science and AI for Neurosurgeons
- SYM01: CNS Leadership Institute Primer: Neurosurgery Career Essentials
- SYM06: 3D Surgical Neuroanatomy
- Dinner Seminar 1: Disruptive Technology in Spine Surgery

SUNDAY

- Special Symposium 04: The Fessler Legacy- Innovations in Minimally Invasive Spine Surgery
- Special Symposium 07: Meeting of the Americas
- SYM08: Swimming with the Sharks
- SYM10A: Navigating Practice: Lessons for Early Career Success and Changing Jobs
- SYM10B: Maximizing Neurosurgical Careers: Utilizing Expertise, Integrating APPs, and Advancing Career Opportunities
- SYM12A: Brain Tumor Update- Management of Malignant Brain Tumors
- SYM12B: Brain Tumor Update- Management of Benign Brain Tumors
- SYM15: Neurosurgeon Scientist CNS Symposium

MONDAY

M02: Navigating Leadership Pitfalls: Stories of Mistakes and Growth

- · Neurosurgery Publications: "Getting Published"
- Council of State Neurological Societies 1: Negotiations and Non-Competes in Neurosurgery
- Dinner Seminar 2: Open Neurovascular Surgery: Shaping the Future

TUESDAY

- T09: Honored Guest Lunch: Daniel K. Resnick: Forks in the Road: Early Career Decisions and Lessons from a Spine Surgeon's Journey
- T10: Keeping Neurosurgical Fingers on the Pulse of Health System's Financial Footprint
- Council of State Neurological Societies 2: Neurosurgery and Social Media

WEDNESDAY

· W17: Service in the OR: Neurosurgeons in Military

MS MEDICAL STUDENTS

SATURDAY

 Special Symposium 03: Data Science and AI for Neurosurgeons

SUNDAY

- · SYM08: Swimming with the Sharks
- SYM15: Neurosurgeon Scientist CNS Symposium

MONDAY

- Medical Student Town Hall
- · Neurosurgery Publications: "Getting Published"
- Interactive Poster Presentation Session

TUESDAY

· Interactive Poster Presentation Session

PA PAIN

SATURDAY

• SYM03B: Advances in Neuromodulation: Head to Toe

SUNDAY

SYM13A: Interdisciplinary Approach to Lumbar Spine Pain

MONDAY

- M01: Peripheral Neuropathy: A Surgical Disease
- Section on Pain 1: Surgical Treatment of Rare Pain Disorders
- Interactive Session on Pain 1: Intraoperative Neuromonitoring for Spinal Cord Stimulation

PE PEDIATRIC

SATURDAY

SYM03: Precision Neurosurgery for Epilepsy

SUNDAY

SYM13B: Pediatric Spinal Deformity

MONDAY

- M07: Advances in the Management of Pineal and Intraventricular Pathology in Children and Adults
- Section on Pediatric Neurosurgery 1: Innovations in the Treatment of Hydrocephalus
- Interactive Session on Pediatric Neurosurgery 1: Is this Spinal Cord Tethered?

TUESDAY

- T13: Evaluation and Treatment of Secondary Dystonia
- Section on Pediatric Neurosurgery 1: Wellness and Work Life Balance in Pediatric Neurosurgery
- Interactive Session on Cerebrovascular Surgery 2: Bypass During the Endovascular Era, A Joint Review with the Pediatric Section

WEDNESDAY

 W20: Treating Cervical Deformity and Instability in the Growing Spine

PN PERIPHERAL NERVES

SATURDAY

• SYM03B: Advances in Neuromodulation: Head to Toe

MONDAY

- M01: Peripheral Neuropathy: A Surgical Disease
- Section on Peripheral Nerves 1: Science of Nerve Regeneration
- Interactive Session on Peripheral Nerve 1: Difficult Peripheral Nerve Cases

RE RESIDENTS

SATURDAY

 SYM01: CNS Leadership Institute Primer: Neurosurgery Career Essentials

SUNDAY

- Special Symposium 04: The Fessler Legacy- Innovations in Minimally Invasive Spine Surgery
- SYM08: Swimming with the Sharks

MONDAY

- Neurosurgery Publications: "Getting Published"
- · Interactive Poster Session

TUESDAY

- T09: Honored Guest Lunch: Daniel K. Resnick: Forks in the Road: Early Career Decisions and Lessons from a Spine Surgeon's Journey
- Interactive Poster Presentation Session

SE SOCIOECONOMIC

SATURDAY

· Special Symposium 02: Meeting of the Pacific Rim

SUNDAY

- · Special Symposium 07: Meeting of the Americas
- SYM10A: Navigating Practice: Lessons for Early Career Success and Changing Jobs
- SYM10B: Maximizing Neurosurgical Careers: Utilizing Expertise, Integrating APPs, and Advancing Career Opportunities

MONDAY

- Council of State Neurosurgical Societies 1: Negotiations and Non-Competes in Neurosurgery
- Interactive Session on Medical Malpractice Expert Testimony Do's and Don'ts

TUESDAY

- Council of State Neurosurgical Societies 2: Neurosurgery and Social Media
- · Mistakes in Spine Coding- How to Stay Out of Trouble

SF STEREOTACTIC AND FUNCTIONAL

SATURDAY

- SYM03A: Precision Neurosurgery for Epilepsy
- SYM03B: Advances in Neuromodulation/Advances in Neuromodulation: Head to Toe

SUNDAY

 SYM14: Movement Disorder Surgery: Approaches and Techniques

MONDAY

- M05: Decision Making During Focused Ultrasound Thalamotomy
- Section on Stereotactic and Functional Neurosurgery 1: Intervention for Cancer Pain: Practical Approaches Near End of Life
- Interactive Session on Stereotactic and Functional Neurosurgery 1: Functional Neurosurgery for New or Non-Functional Neurosurgeons and APPs

TUESDAY

- T13: Evaluation and Treatment of Secondary Dystonia
- T14: Surgery for Generalized Epilepsy
- Section on Stereotactic and Functional Neurosurgery 2: Next-Generation Therapies: Harnessing Cell and Gene Technology in Epilepsy and Movement Disorders
- Interactive Section on Stereotactic and Functional Neurosurgery 2: Approaches to Atypical Facial Pain Syndromes

SP SPINE

SATURDAY

- Special Symposia 01: CNS-SRS Symposium on Spinal Deformity
- SYM04B: Surgical and Postoperative Management of Spinal Trauma

SUNDAY

- Special Symposium 04: The Fessler Legacy- Innovations in Minimally Invasive Spine Surgery
- SYM13A: Interdisciplinary Approach to Lumbar Spine Pain
- SYM13B: Pediatric Spinal Deformity

MONDAY

- M06: Spinoplastics: A Collaborative Approach to Treating Complex Wound Issues in Spine Patients
- Section on Disorders of the Spine and Peripheral Nerves 1: Personalized Spine Surgery
- Interactive Session on Disorders of the Spine and Peripheral Nerves 1: Chronic Low Back Pain

TUESDAY

- Guidelines Sessions III: Cervical Spinal Cord Injury
- T09: Honored Guest Lunch: Dan Resnick: Forks in the Road: Early Career Decisions and Lessons from a Spine Surgeon's Journey
- T15: Monitoring Mishaps: Avoiding the Worst-Case Scenarios
- Section on Disorders of the Spine and Peripheral Nerves 2: Metastatic Spinal Tumors
- Interactive Session on Disorders of the Spine and Peripheral Nerves 2: Spine Oncology
- · Mistakes in Spine Coding: How to Stay Out of Trouble

WEDNESDAY

 W20: Treating Cervical Deformity and Instability in the Growing Spine

TR NEUROTRAUMA

SATURDAY

- SYM04A: Case Based Education in Neurotrauma for the Practicing Neurosurgeon and for Oral Board Preparation
- SYM04B: Surgical and Postoperative Management of Spinal Trauma



Scan QR to register



SUNDAY

 SYM09: Shaping the Future of Neurotrauma: Lessons from the Past, Innovations for Tomorrow – Celebrating the 40th Anniversary of the Section on Neurotrauma and Critical Care

MONDAY

- M08: Advances in Diagnosis, Management and Treatment of NPH
- Section on Neurotrauma and Critical Care 1: Disparities in Neurotrauma
- Interactive Session on Neurotrauma and Critical Care 1: Crossfire Debates in Neurotrauma

TUESDAY

- Section on Neurotrauma and Critical Care 2: So the Acute Trauma is Over, Now What? An Overview of Post Traumatic Neurostimulation and Nerve Transfers
- Interactive Session on Neurotrauma and Critical Care 2: Biomarkers: An Epidemiological and Clinical Perspective

WEDNESDAY

- W20: Chronic Subdural Hematoma Management
- Guidelines Sessions V: Brain Trauma Foundation Guidelines for the Management of Penetrating Traumatic Brain Injury (pTBI), Second Edition

TUMOR

SUNDAY

- Special Symposium 05: Orbital, Periorbital, and Other Minimally Invasive Approaches to the Skull Base, A Collaboration Between CNS and NASBS
- SYM12A: Brain Tumor Update- Management of Malignant Brain Tumors
- SYM12B: Brain Tumor Update- Management of Benign Brain Tumors

MONDAY

- Guidelines Sessions I: Low Grade Glioma
- M04: Biomedical Optic Imaging for the Brain Tumor Surgeon
- M07: Advances in the Management of Pineal and Intraventricular Pathology in Children and Adults
- Section on Tumors 1: Incorporation of Targeted Therapies in the Management of Brain Tumors in the Molecular Age
- Interactive Session on Tumors 1: Use of Ultrasound Technologies in Neurosurgical Oncology

TUESDAY

- · Guidelines Sessions IV: Brain Metastases
- T12: Neuro-oncology and Quality of Life: Pregnancy, End of Life, and Cognitive Issues
- Section on Tumors 2: Technological Advances in Skull Base Surgery
- Interactive Session on Tumors 2: Bench to Bedside-Evolution of Clinical Trials

WEDNESDAY

W18: Advances in Radiation Therapy for CNS Malignancies

W WINS

SATURDAY

- SYM10A: Navigating Practice: Lessons for Early Career Success and Changing Jobs
- SYM10B: Maximizing Neurosurgical Careers: Utilizing Expertise, Integrating APPs, and Advancing Career Opportunities

MONDAY

- WINS and LBGTQ+ Breakfast Seminar: Neurosurgical Leadership: Owning Your Voice at the Table
- M02: Navigating Leadership Pitfalls: Stories of Mistakes and Growth

DEVELOPING NATION RATE

To make the best in neurosurgery more accessible to doctors and scientists around the world, the CNS is pleased to offer a discounted registration rate of \$150 to nonmember attendees from the following countries:

Afghanistan, Angola, Bangladesh, Benin, Bhutan, Bolivia, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Republic of Congo, Côte d'Ivoire, Djibouti, Egypt, Eritrea, Eswatini, Ethiopia, The Gambia, Ghana, Guinea, Guinea-Bissau, Haiti, Honduras, India, Jordan, Kenya, Kiribati, The Democratic People's Republic of Korea, Kyrgyz Republic, Lao PDR, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, The Federated States of Micronesia, Morocco, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Palestine, Papua New Guinea, Philippines, Rwanda, Samoa, São Tomé and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sri Lanka, Sudan, Swaziland, Syrian Arab Republic, Tajikistan, Tanzania, Timor-Leste, Togo, Tunisia, Uganda, Uzbekistan, Vanuatu, Vietnam, West Bank and Gaza, Yemen, Zambia, Zimbabwe

Apply for your visa letter at cns.org/visa

WELLNESS RETREAT

Sunday, October 12 | 7:30 am-2:30 pm JW Marriott Los Angeles L.A. LIVE

Join us at the JW Marriott Los Angeles L.A. LIVE for an immersive one-day experience to rejuvenate your mind and body with yoga, meditation, and stress-relief techniques. Learn practical wellness tips for pain management, healthy eating in the OR, and work-life balance. The retreat begins with a Saturday evening reception, followed by Sunday morning sessions, concluding by 2:30 pm—just in time for the Opening General Scientific Session. Space is limited, so register early to secure your spot. Don't miss this chance to recharge and reset!



CNS 5K

Monday, October 13 | 6:30 am Tuesday, October 14 | 5:00 pm

Join us again this year for the CNS 5K! Organized group runs will be held on Monday and Tuesday, departing from the lobby at the JW Marriott Los Angeles L.A. LIVE! Advance registration is required and includes a CNS 5K t-shirt. You may also run a 5K autonomously while you are in Los Angeles and track your time in the Strava app.

Industry 5k Sponsors: Johnson & Johnson Medtech



with us in Los Angeles!
Watch your email for details
on how to sign up for a game!

INTERNATIONAL, RESIDENT, AND FOUNDATION RECEPTION

Saturday, October 11 | 5:00-6:30 pm JW Marriott Los Angeles L.A. LIVE Pool Deck

CNS Foundation Donors and Awardees, Residents, and international meeting attendees – we welcome you to join your colleagues from around the world at this reception! Enjoy hors d'oeuvres and cocktails while chatting with some of the top professionals in the field of neurological surgery. This reception is complimentary for all registered CNS Foundation Donors and Awardees, residents, international attendees, and their registered guests. Donate to the CNS Foundation today to attend this special event! cns.org/foundation



OPENING RECEPTION

Sunday, October 12 | 6:30-8:00 pm JW Marriott Los Angeles L.A. LIVE

Step into a world of culinary delights and vibrant energy at our Opening Reception, a perfect blend of exquisite flavors and lively camaraderie! Conveniently located just a short walk from the Los Angeles Convention Center, this evening is more than just a celebration; it's a chance to forge meaningful connections amidst the sensory symphony of flavors and laughter.



INTERACTIVE POSTER SESSIONS WITH WINE AND CHEESE RECEPTION

Monday, October 13 | 4:30-6:00 pm Tuesday, October 14 | 5:00-6:30 pm

The Interactive Poster Presentation Sessions with Wine and Cheese Receptions aim to invigorate scientific presentation and discussion. Selected presenters will showcase their research, highlighting key advances in each subspecialty area.



ART OF NEUROSURGERY

Monday, Tuesday, Wednesday, October 13-15 Open Exhibit Hall hours

Don't miss the Art of Neurosurgery gallery display of artwork created by your neurosurgical colleagues! Take a few minutes out of your busy day to stroll through the art gallery.



MEDICAL STUDENT TOWN HALL

Monday, October 13 | 6:00-7:30 pm

We invite all medical students to attend the Medical Student Town Hall! Take advantage of this opportunity to learn about navigating the match and developing a successful career in neurosurgery from a panel of Neurosurgery Residency Program Directors who will answer questions and discuss hot topics.



CNS RESIDENT SANS CHALLENGE CHAMPIONSHIP ROUND

Tuesday, October 14 | 1:50-2:50 pm

See the top three resident programs from around the country compete for indisputable SANS bragging rights, trophies, and cash prizes! **Sponsored by: Sophysa**



DINNER SEMINAR 1

Saturday, October 11 | 6:30-8:30 pm \$225 (includes three-course dinner and beverages)

- Perch LA
- Advance Registration Required
- Complimentary shuttle service will depart the JW Marriott Los Angeles L.A. LIVE at 6:15 pm



DISRUPTIVE TECHNOLOGY IN SPINE SURGERY

Moderators: Victor W. Chang, Paul Park

Faculty: Muhammad M. Abd-El-Barr, Jakub Godzik, Christoph P. Hofstetter, Tiffany Perry, John H. Shin, Timur Urakov, Anand Veeravagu, Michael Y. Wang

Seminar Description: Technological advancements in spine surgery continue developing at an astounding rate. This dinner seminar will foster discussion on some of the latest trends in the management of patients with spinal disorders. Topics to be covered include robotics, endoscopy, and artificial intelligence.

DINNER SEMINAR 2

Monday, October 13 | 7:30-9:30 pm \$225 (includes three-course dinner and beverages)

- Mastro's Ocean Club
- Advance Registration Required
- Mastro's Ocean Club is a short walk from the JW Marriott Los Angeles L.A. LIVE



OPEN NEUROVASCULAR SURGERY: SHAPING THE FUTURE

Moderators: Ketan R. Bulsara, Luca Regli, Ali Zomorodi

Faculty: Sepideh Amin-Hanjani, Daniel L. Barrow, Mustafa K. Baskaya, Fady Charbel, Jean G. de Oliveira, Jonathan Russin, Martin Sames

Seminar Description: This seminar will explore opportunities in open neurovascular surgery for clinical and scientific innovation.

10 2025 CNS ANNUAL MEETING





The CNS Foundation is incredibly grateful for supporters around the world who help make our awards and programs possible. Please help us thank the following:

Medtronic

stryker





- Congress of Neurological Surgeons
- Council of State Neurosurgical Societies (CSNS)
- American Society for Stereotactic and Functional Neurosurgery (ASSFN)
- Joint Cerebrovascular Section
- Joint Section on Disorders of the Spine and Peripheral Nerves (DSPN)
- Joint Section on Neurotrauma
 & Critical Care

- Joint Section on Pediatric Neurological Surgery
- Joint Section on Pain
- Joint Section on Tumors
- Joint Section on Women in Neurosurgery (WINS)
- The CNS community of neurosurgeons and individuals who generously donate and volunteer every year to the CNS Foundation

The CNS Foundation is proud to offer the following awards in support of our four initiative pillars:

Community, Culture, and Engagement

- Impact, Pilot and Scholar Awards
- Future Women Leaders in Neurosurgery Scholarship
- Pathway to Neurosurgery

International Philanthropy

- International Brain
 Tumor Observership at
 Icahn School of Medicine
 at Mount Sinai
- International Endovascular
 Observership at
 Harvard University/
 Beth Israel Deaconess
- International Endovascular
 Observership at UC Davis
- International Endovascular Observership at University of Utah
- International Visitorship at Stanford University
- International Neurotrauma Visitorship at University of Pittsburgh
- International Spine Observership at Duke University
- International Tumor Observership at University of Miami

Clinical Scientist Career Development

- NINDS/CNS Getch K12 Scholar Award
- Sophysa Young Investigator Award

INDUSTRY HIGHLIGHTS

EXHIBIT HALL

The CNS Exhibit Hall is the best place to discover cutting-edge technology to enhance your practice. Learn from industry experts and gain hands-on experience with the latest devices – all brought to you by our industry partners. For a complete list of exhibitors, see page 53 or visit cns.org/2025!

EXHIBIT HALL HOURS

 Monday:
 8:15 am-4:00 pm

 Tuesday:
 8:15 am-3:00 pm

 Wednesday:
 8:15 am-1:30 pm

EXHIBIT HALL BEVERAGE BREAKS

Monday-Wednesday: 9:40-10:40 am Monday & Tuesday: 1:50-2:50 pm

Admittance to the Exhibit Hall is by CNS name badge only. Children under the age of 18 are not allowed in the Exhibit Hall.

CROSSROADS OF INNOVATION

Choose from a variety of subspecialty tracks where you will be guided along a path of engaging inbooth demonstrations in the Exhibit Hall during your morning and afternoon breaks.



NEUROSURGICAL DISCOVERIES SKILLS CHALLENGE

Experience a new type of engagement with technology during the Exhibit Hall hours. Each skills challenge completed in a participating exhibit booth will have a point value dependent on how well you perform the skill. A leaderboard will be tracking attendee participation and point levels in real-time throughout the meeting. CNS will provide prizes to the top scoring attendees.

Sponsored by: Olympus America

XPERIENCE LOUNGE

LIVE SURGERY PRESENTATIONS

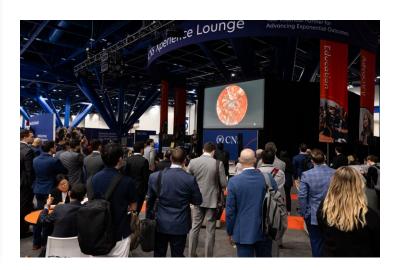
Surgeons from top institutions will operate live via telemedicine and you will have the opportunity to observe and ask questions of the operating surgeon during each beverage break.

Sponsored by: Siemens Healthineers

DEVICE INNOVATION SHOWCASE

These 10-minute presentations will feature an expert showcasing the latest technology from our Industry leaders. Learn more Monday and Tuesday from 12:50-1:50pm in the Exhibit Hall, Xperience Lounge.

Sponsored by: Abbott, GammaTile, Icotec, MicroTransponder/ Vivistim, MiMedx Group, Inc, SI-BONE



12 2025 CNS ANNUAL MEETING

INDUSTRY HIGHLIGHTS







CONNECT WITH INDUSTRY OUTSIDE OF THE EXHIBIT HALL!

SPONSORED LUNCH SYMPOSIA WITH INDUSTRY LEADERS

Choose one of our 12 complimentary Non-CME Lunchand-Learn Sessions, covering important clinical topics during your lunch break from 12:20-1:50 pm in the convention center.

Sponsored by: Abbott, AstraZeneca, GE Healthcare, Icotec, Medtronic, Servier Pharmaceuticals

HANDS-ON CADAVERIC EXPERIENCE

These surgical cadaveric suites located in the convention center give you the opportunity to enhance your experience with the latest and greatest neurosurgical technology.

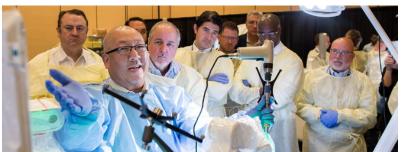
Mobile Labs in Exhibit Hall: Stryker, CNS Sponsored Sessions: Olympus America

BREAKOUT & LUNCH SESSIONS DURING THE FULL-DAY SYMPOSIA

These 30-minute non-CME breakout sessions or 45-minute non-CME lunch sessions will be held during the full day symposia on Saturday and Sunday. Take advantage of this opportunity to gain hands-on experience and see demonstrations of the most advanced equipment and techniques.

Sponsored by: Avatar Medical, GammaTile, Kiyatec, MicroTransponder/Vivistim, PMT Corporation







GENERAL SCIENTIFIC SESSION I

Sunday, October 12 | 4:30-6:30 pm

Presiding Officer: Martina Stippler



Welcome to the 2025 CNS Annual Meeting Daniel J. Hoh

California Association of Neurosurgeons

Samer Ghostine

CNS Operative Video Theater
- Innovation in Action: Giant
Peripheral Nerve Sheath Tumor
Zarina Ali



Neurosurgery Publications Update Douglas Kondziolka

Neurosurgery Top Paper of the Year Presentation

Brain Machine Interface in Cerebrovascular Neurosurgery and Bevond

Shahram Majidi

Penetrating Brain Injury Guidelines

Randy Bell

John Thompson History of Medicine Lecture



Nelson Ovesiku

Moderators: Rushna Ali, Anand Veeravagu

CNS Michael L.J. Apuzzo Lecturer on Creativity and Innovation Spike Lee

GENERAL SCIENTIFIC SESSION II

Monday, October 13 | 8:40 am-12:10 pm

Presiding Officer: Ashok Asthagiri

High Impact Manuscript
Presentation: No Association
between Fencing Response
following Concussion and
Recovery Time, Concussion
Severity, or Clinical Outcomes in
Professional American Football
Players

Shawn R. Eagle



Japanese Congress of Neurological Surgeons Presidential Address Akihide Kondo

CNS Resident Award Presentation



Honored Guest Presentation: Connections in the Community of Neurosurgery Daniel K. Resnick



2025 Presidential Address *Daniel J. Hoh*



Moderators: Julie Chan, Jeffrey Mullin

Walter E. Dandy Orator Dan Buettner

GENERAL SCIENTIFIC SESSION III

Tuesday, October 14 | 8:40 am-12:10 pm

Presiding Officer: Lola Chambless

Moderators: Tiffany Hodges, Kunal Vakharia



CNS Foundation Update Lola Chambless

High Impact Manuscript Presentation: High-accuracy Auamented Reality Guidance for Intracranial Drain Placement Using a Standalone Head-worn Navigation System: First-inhuman Results

Frederick Van Gestel



Neurological Society of India Presidential **Address** Manas Panigrahi



Distinguished Service Award Presentation to Deanne L. Starr Presented by Alexander A. Khalessi



Founder's Laurel **Award Presentation** to Richard Ellenbogen Presented by Alexander A. Khalessi

CNS Operative Video Theater -Innovation in Action Debate: Case Presentation of Aneurysm

Nicholas Bambakidis

- Transpalpebral Transorbital **MCA Aneurysm Clipping** Anthony Wang
- Endovascular Approach Stavropoula Tjoumakaris

Industry Awards Acknowledgement

Washington Committee Update Alexander A. Khalessi



Educator of the Year Award Presentation to Marjorie Wang Presented by Laura Snyder

Non-invasive Spinal Cord Electrical Stimulation for Arm and Hand Function

James Guest

CNS Operative Video Theater -Innovation in Action: Endoscopic 3rd Ventricular Tumor Surgery Mark Souweidane



The Dorothy Nash Lecturer Lisa Ling **Sponsored by Medtronic**

GENERAL SCIENTIFIC SESSION IV

Wednesday, October 15 | 8:40 am-12:10 pm

Presiding Officer: Brian Nahed

Moderators: David Dornbos, Laura Snyder

High Impact Manuscript Presentation: Vestibular Schwannoma Koos Grade I **International Study of Active** Surveillance Versus Stereotactic Radiosurgery: The VISAS-K1 Study

Jason P. Sheehan



Society of Brazilian Neurosurgery **Presidential Address** Paulo Henriaue Pires de Aguiar

Innovator of the Year **Presentations**

Attendee voting for Innovator of the Year following the presentations.

Brain Tumor Guha Award

CNS Operative Video Theater -**Innovation in Action Debate: Case** presentation of Giant Thoracic **Calcified Disc**

Erica Bisson

- Mini-open Retropleural Approach
 - Juan Uribe
- Endoscopic Approach Meng Huang

Announcement of SANS Challenge Winners, Top Posters, and **Residency Program Abstract Competition Winners**

DBS for Stroke

Andre Machado

Innovation in Clinical Trials Zoher Ghogawala

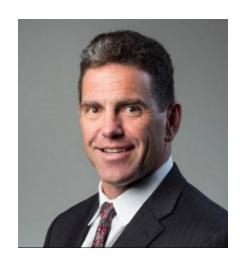
Announcement of Innovator of the



Join Us in 2026! Khoi D. Than



Akash Patel



Daniel K. Resnick

Professor, Vice Chairman, and Residency Program Director of Neurological Surgery at the University of Wisconsin School of Medicine and Public Health, Madison.

LOOK FOR DR. RESNICK AT THE FOLLOWING SESSIONS:

Monday, October 13 General Scientific Session—

Honored Guest Presentation: Connections in the Community of Neurosurgery

Tuesday, October 14

12:20-1:50 pm
 Honored Guest Luncheon
 Seminar: Forks in the Road: Early
 Career Decisions and Lessons
 from a Neurosurgeon's Journey

Advance registration required

Daniel K. Resnick, MD, is an internationally known spinal surgeon and has particular expertise in minimally-incisional surgery, spinal tumors and degenerative disorders of the spine. His current research focuses on improving the quality of spinal surgery and he is particularly interested in tracking and improving meaningful patient outcomes.

Dr. Resnick has served in multiple leadership roles in organized neurosurgery and spine surgery. He is Past President of the Joint Spine Section, Past President of the Congress of Neurological Surgeons, and Past President of the North American Spine Society. He is a past Director and Secretary of the American Board of Neurological Surgeons and currently serves on the Neurosurgery Residency Review Committee.

He has approximately 250 peer-reviewed publications, another 250 or so invited publications, and has presented over 600 scientific presentations. Among his presentations, he has been honored to serve as the Meritorious Guest for the AANS/CNS Spine Section, Sonntag Lecturer for the American Association of Neurological Surgeons, The Art Steffee lecturer at the Cleveland Clinic, The Fager Lecturer for the Lahey Clinic, The Jannetta Lecturer for the University of Pittsburgh, the Ved Sachdev Endowed Lecturer for Mount Sinai, and The Whitcomb Lecturer for the New England Medical Society.

Dan has five children and two grandchildren (and one on the way). When not busy with professional duties, Dan and Rachel enjoy the Madison lifestyle which includes many evenings on the lake and nights at local music venues.

16 2025 CNS ANNUAL MEETING



Spike Lee

Michael L.J. Apuzzo Lecturer on Creativity and Innovation

Sunday, October 12

General Scientific Session I

Academy Award® Winner Spike Lee's iconic body of storytelling has made an indelible mark on Filmmaking and Television. He is currently in post-production on his latest Joint *Highest 2 Lowest*, his fifth film with Denzel Washington, which has been selected for the 2025 Cannes International Film Festival.

In August 2021, he directed and produced the four-part documentary essay NYC EPICENTERS 9/11→2021½ released by HBO and streamed on HBO Max. His directed version of David Byrne's American Utopia was also released by HBO. In 2018, the visionary filmmaker co-wrote and directed the Academy Award®-nominated and critically acclaimed hit feature BlacKkKlansman, which won the Oscar® for Best Adapted Screenplay.

His career spans over 30 years and includes: She's Gotta Have It, School Daze, Do the Right Thing, Mo' Better Blues, Jungle Fever, Malcolm X, Crooklyn, Clockers, Girl 6, Get on the Bus, He Got Game, Summer of Sam, Bamboozled, 25th Hour, She Hate Me, Inside Man, Miracle at St. Anna, Red Hook Summer, Old Boy, and Chi-Raq. Lee's outstanding feature documentary work includes the double Emmy® Award-winning If God Is Willing and Da Creek Don't Rise, a follow up to his HBO documentary film When the Levees Broke: A Requiem in Four Acts and the Peabody Award-

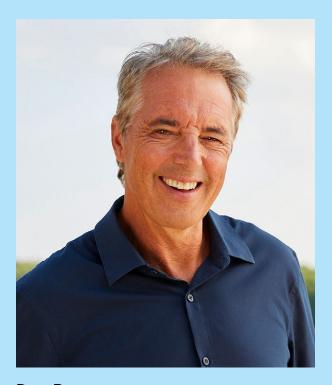
winning A Huey P Newton Story. In the Television arena, his Netflix original series She's Gotta Have It ran 2 seasons on the platform. The series was a contemporary update of his classic film.

Lee is also known for his legendary *Air Jordan* TV commercials and marketing campaigns with Michael Jordan for Jordan Brand. He recently directed new additions to the Capital One "Road Trip" National Campaign featuring Samuel L. Jackson and Charles Barkley.

In addition to his Films, TV series, and Commercials, Lee has directed a number of Short Films for Artists such as Michael Jackson, Prince, Public Enemy, Naught by Nature, Branford Marsalis, Bruce Hornsby, Miles Davis, and Anita Baker.

Spike Lee is a Five-time Oscar nominee (*Do The Right Thing* for Original Screenplay, *4 Little Girls* for Documentary Feature, *BlacKKKlansman* for Picture, Director and Best Adapted Screenplay-Winner) and was awarded an Honorary Oscar in 2015 for his lifetime achievement and contributions to the state of motion picture arts and sciences. In addition to the Oscar he won for Best Adapted Screen play for *BlacKKKlansman*. He is a graduate of Morehouse College and New York University's Tisch School of the Arts, where he is a tenured Professor of Film and Artistic Director. Lee's Production Company 40 Acres and a Mule Filmworks is based in Da Republic of Brooklyn, NY.

FEATURED SPEAKERS



Dan Buettner

Walter E. Dandy Orator

Monday, October 13

General Scientific Session II

Dan Buettner will be signing copies of his book in the CNS Xperience Lounge at the conclusion of his talk. Dan Buettner is a National Geographic Explorer, Emmy Award-winning producer, and multiple New York Times bestselling author. He is renowned for identifying the five regions of the world—known as Blue Zones—where people live exceptionally long and healthy lives. His groundbreaking research and captivating articles in The New York Times Magazine and National Geographic have become some of the most widely read and influential pieces for both publications.

As the founder of Blue Zones LLC, Dan has worked with city governments, hospital systems, and insurance companies to transform communities by applying the longevity principles he uncovered in Blue Zones. Notably, in Fort Worth, Texas, obesity rates dropped by 3%, and the city projected \$250 million in healthcare cost savings as a result of these initiatives. To date, over 70 cities across the United States have adopted Blue Zones Projects, collectively improving the health of more than 10 million Americans.

Most recently, Dan's Netflix series, *Live to 100: Secrets of the Blue Zones,* received six Emmy nominations and won three.

In addition to his work in longevity, Dan is an accomplished endurance athlete, holding three Guinness World Records in distance cycling.

18 2025 CNS ANNUAL MEETING

FEATURED SPEAKERS



Lisa LingDr. Dorothy Nash Lecturer sponsored by Medtronic

Tuesday, October 14

General Scientific Session III

Lisa Ling is an Emmy Award-winning journalist and bestselling author who has spent more than two decades focused on groundbreaking storytelling. Lisa is a contributor for CBS. Previously, she served as host and executive producer for the acclaimed series *This is Life* on CNN and *Take Out* on Max.

For five seasons prior, Lisa EP'd and hosted Our America on OWN. She was also a field correspondent for *The Oprah Winfrey Show* and contributor to ABC News' *Nightline*. For these shows she reported from dozens of countries; covering stories about gang rape in the Congo, bride burning in India and the Lord's Resistance Army in Uganda, among other issues that are too often ignored.

Lisa was the first female host of National Geographic's flagship show *Explorer* which sent her to cover the phenomenon of female suicide bombing, the spread of the MS-13 gang—considered the world's most dangerous gang, and the humanitarian crisis inside North Korea.

She got her start in journalism as a correspondent for Channel One News where she covered the civil war in Afghanistan at 21 years of age. She later went to become a co-host of ABC Daytime's hit show *The View,* which won its first daytime Emmy during her time at the show.

Lisa is the co-author of Mother, Sister. Daughter, Bride: Rituals of Womanhood, and Somewhere Inside: One Sister's Captivity in North Korea and The Other's Fight to Bring Her Home that she penned with her sister Laura.

In 2014, President Obama appointed Lisa to the Commission on White House Fellows. She is an advisory board member for Fostering Media Connections, The Amani Project, and a Baby2Baby angel.

Lisa lives in Santa Monica with her husband Paul Song and daughters Jett and Ray.

ANNUAL MEETING LEADERSHIP



2025 PRESIDENT: Daniel J. Hoh

Daniel J. Hoh is the Spine Division Chief, Director of the Comprehensive Spine Center, and Assistant Dean of Revenue Cycle Management at the University of Florida. Dr. Hoh is a professor of neurosurgery and holds the Dunspaugh Dalton endowed professorship. His practice specializes in complex and minimally invasive spine surgery. He joined the CNS Executive Committee as a Member-At-Large in 2017 and has served the CNS as president-elect, treasurer, and has been committee chair for strategic planning, finance, development, international, and SANS.



PRESIDENT ELECT: Martina Stippler

Martina Stippler is Vice-Chief of Neurosurgery and Director of Neurotrauma at Beth Israel Deaconess Medical Center in Boston and an Associate Professor of Neurosurgery at Harvard Medical School. She leads the BIDMC multidisciplinary TBI committee and is a leader in traumatic brain injury research and neurosurgical medical education. Dr. Stippler's research interests are multi-modality TBI management, triage of mild TBI, and goals of care discussions in urgent settings. She has been a member of the CNS Executive Committee since 2016, served as Chair of the CNS Foundation, and is the first woman to hold the position of Secretary of the CNS. She also is Chair of the Joint Section of Neurotrauma and Critical Care, and is a Past President of Women in Neurosurgery.



2025 ANNUAL MEETING CHAIR: Edjah K. Nduom

Edjah K. Nduom is a Professor and the Daniel Louis Barrow Endowed Chair in Neurosurgery at Emory University School of Medicine. Dr. Nduom joined the Executive Committee of the Congress of Neurological Surgeons in 2021, and he now has the honor of serving as Annual Meeting Chair. A neurosurgeon-scientist, Dr. Nduom's clinical specialty is the resection of tumors located in eloquent regions of the brain, brainstem, and spinal cord, and his laboratory studies novel immune therapeutics for brain tumors with the support of numerous foundations and the National Institutes of Health.



2025 SCIENTIFIC PROGRAM CHAIR: Khoi D. Than

Khoi D. Than is Professor of Neurosurgery and Orthopaedic Surgery at Duke University. Dr. Than is a spine surgeon with specific clinical and research interests in minimally invasive spine surgery, including its application to adult spinal deformity. Since joining the CNS Executive Committee in 2020, his roles have included serving as Chair of Case of the Month, Chair of Nexus, Chair of Online Education, Co-Managing Editor of SANS, Co-Chair of Development, Vice Chair of the 2024 Scientific Program, and now Chair of the Scientific Program.



2025 VICE SCIENTIFIC PROGRAM CHAIR: Akash J. Patel

Akash Patel is a Professor in the Departments of Neurosurgery and Otolaryngology at Baylor College of Medicine, where he also serves as the Neurosurgery Residency Program Director and Director of Brain Tumor Surgery. He specializes in the treatment of both malignant and benign tumors of the brain and skull base. His research focuses on determining the molecular underpinnings of inherited and sporadic forms of meningiomas and schwannomas in an effort to develop targeted therapies to treat aggressive cases. Since joining the CNS Executive Committee in 2018, he has served in numerous capacities including Chair of SANS, Chair of Neurosurgery Survival Guide, and Co-Chair of the Education Committee. Dr. Patel lives in Houston with his wife, Dr. Pooja Patel, and their three sons, Ishan, Kishan, and Shiven.

20 2025 CNS ANNUAL MEETING

Thank You

The Congress of Neurological Surgeons gratefully acknowledges our Industry Allies Council partners for their continued support.



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- SF STEREOTACTIC AND FUNCTIONAL
- SP SPINE
- TR NEUROTRAUMA
- **TU** TUMOR
- **WI WINS**



Be sure to secure your seat for one or more of these ticketed sessions when you register!



PRICING: Full Day Discounted Bundles (includes lunch): Physician \$600; Nurse/NP/PA \$300; Resident/Medical Student \$175 Half Day: Physician \$450; Nurse/NP/PA \$200; Resident/Medical Student \$125

SPECIAL SYMPOSIA:

8:00 am-4:15 pm



Special Symposium 01: CNS-SRS Symposium on Spinal Deformity





Course Directors: Jeffrey P. Mullin, Joseph A. Osorio, Alexander Tuchman

Faculty: Christopher P. Ames, Laurel Blakemore, Benjamin D. Elder, Michael A. Galgano, Mari L. Groves, Serena Hu, Michael J. Kelly, Ronald A. Lehman, Elizabeth Lord, Jean- Christophe A. Leveque, Richard Menger, Camilo A. Molina, Edward Nomoto, David W. Polly, Christopher I. Shaffrey, Suken Shah, David L. Skaggs, Lee Tan, Jay D. Turner, Anand Veeravagu, Andrew Vivas, Corey T. Walker, Scott Zuckerman, Corinna C. Zygourakis

Course Description: In partnership with the Scoliosis Research Society, we will review current practice in spinal deformity surgery. The course will consist of didactic lectures by leaders in the field as well as case based, small group discussions.

8:00 am-12:00 pm



Special Symposium 03: Data Science and AI for Neurosurgeons

Course Directors: Eric K. Oermann, Matthew Pease Faculty: Anton Alyakin, Omar Arnaout, Vivek Buch, Daniel Donoho, Rui Feng, Todd C. Hollon, Huwen Ju, Mustafa Nasir-Moin, Minjun Park, Andreas Seas, Eunice Yang

Course Description: This symposium, co-hosted by NVIDIA, will feature hands-on sessions using GPU computing to practice deep learning techniques, building on our successful 2024 workshop. Participants will gain insights into implementing these technologies at their local institutions, with discussions on hardware strategies and practical approaches to optimizing resources for neurosurgical applications.

8:00 am-4:15 pm



Special Symposium 02: Meeting of the Pacific Rim Course Directors: Kunal Vakharia

Faculty: Yunus Kuntawi K. Aji, Asra Al Fauzi, Hamish S. Alexander, Abrar Arham, Kiochi Arimura, Tran Huy Hoan Bao, Won Cho, Trung Kien Duong, Hidenori Endo, Sunil Gupta, Yoon Ha, Inbo Han, Hirotaka Hasegawa, Jae Taek Hong, Byron Hontiveros, Wei Hua, Sun Woo Jang, JP Jeon, Davendran Kanesen, Jin-sung Kim, Kee Kim, Keung Nyun Kim, Takayuki Kikuchi, Manabu Kinoshita, Junkyeung Ko, Akihide Kondo, Andrew Law, Tien N. Le Bao, Sun Ho Lee, Jae Whan Lee, James K. Liu, Ying Mao, Selfy Oswari, Jeong Yoon Park, Jinhoon Park, Jai P. Rao, Sohn Seil, Adi Sulistyanto, Shota Tanaka

Course Description: The Pacific Rim Symposium will bring together leading experts from across the Asia-Pacific region and the United States to highlight advancements in neurosurgical care, technology, and education. The symposium will highlight regional innovations, collaborative research efforts, and the exchange of best practices.





Look for this image for a SANS exam that accompanies this course and can be purchased on the Annual Meeting registration site.

SYMPOSIA

8:00 am-4:15 pm



SYM01: CNS Leadership Institute Primer: Neurosurgery Career Essentials



Course Directors: Ashok Asthagiri, Nicole Bentley, Mark N. Hadley, Anand Veeravagu

Faculty: Aviva Abosch, Rohan V. Chitale, Gerald A. Grant, Megan M. Jack, Nader Pouratian, Howard A. Riina, Analiz Rodriguez, Jennifer D. Sokolowski, Christopher J. Winfree, Andrea Winslow

Course Description: This full-day course, part of the CNS Leadership Institute, is designed to prepare neurosurgeons for leadership roles across clinical, academic, and organizational settings. Aimed at senior residents, fellows, and early-career faculty, the Primer focuses on core leadership skills, strategic thinking, and practice management. The program includes high-impact lectures, tailored content from pre-course surveys, and interactive discussions to support lasting professional growth. Interested in attending this Symposium? Please go to www.cns.org/2025 to register for the CNS Annual Meeting and follow the directions to submit your application for this course.

8:00 am-4:15 pm



SYM02: Cerebrovascular Bundle

Composed of two sessions: SYM02A & SYM02B. Select this option to take both at a discounted rate.

8:00 am-12:00 pm

CV/IN

SYM02A: Ischemic Stroke: An Update on Indications, Devices, New Technology and Stroke Center Development

Course Directors: Alexander A. Khalessi, Stavropoula I. Tjoumakaris Faculty: Michael J. Alexander, Arun Amar, Cargill H. Alleyne, Kathleen E. Dlouhy, Koji C. Ebersole, Ricardo A. Hanel, Sean D. Lavine, Elizabeth J. Liptrap, Laura S. McGuire, Aman B. Patel, Stylianos K. Rammos, Richard F. Schmidt, Alejandro M. Spiotta, William E. Thorell, Jonathan White, Stacey Q. Wolfe

Course Description: This symposium will provide surgeons with upto-date indications for treating ischemic stroke, a review of relevant devices and guidance for navigating stroke center development.

12:45-4:15 pm



SYM02B: Hemorrhagic Stroke: Update on Microsurgical and Endovascular Techniques

Course Directors: Christopher P. Kellner, Saman Sizdahkhani Faculty: David J. Altschul, Kevin M. Cockroft, Kadir Erkmen, Justin F. Fraser, Chirag D. Gandhi, Andrew W. Grande, Jonathan A. Grossberg, Michael J. Lang, Justin R. Mascitelli, Joshua W. Osbun, Ciaran Powers, Visish M. Srinivasan, Robert M. Starke, Jeffrey Steinberg, Hai Sun, Phil Taussky

Course Description: This course will provide surgeons with up-to-date indications for treating hemorrhagic stroke using relevant devices, strategies and techniques.

8:00 am-4:15 pm



SYM03: Stereotactic and Functional/Pediatric/Pain/Peripheral Nerve Bundle

Composed of two sessions: SYM03A & SYM03B. Select this option to take both at a discounted rate.

8:00 am-12:00 pm

SF / PE

SYM03A: Precision Neurosurgery for Epilepsy

Course Directors: Kai J. Miller, Carrie R. Muh

Faculty: Taylor J. Abel, Allyson L. Alexander, Sarah K. Bick, Jason Blatt, David Bonda, Amanda Jenson, Jason S. Hauptman, Fedor Panov, Mark Richardson, Patrick Senatus, Derek Southwell, Scellig S. Stone, Matthew Vestal, Andrew I. Yang

Course Description: This symposium will explore the cutting edge of precision epilepsy surgery, focusing on innovative techniques and technologies that are transforming the field. Designed for neurosurgeons, neurologists and epilepsy specialists, this session will provide an in-depth look at advanced surgical strategies for drug-resistant epilepsy. Participants will gain insights into topics such as laser interstitial thermal therapy (LITT), stereo- electroencephalography (sEEG) for seizure localization, robotic-assisted electrode placement, and neuromodulation approaches including responsive neurostimulation (RNS) and deep brain stimulation (DBS).

12:45-4:15 pm

PA/PN/IN/SF

SYM03B: Advances in Neuromodulation: Head to Toe

Course Directors: Rushna Ali, Mark Richardson, Christopher J. Winfree

Faculty: Rushna Ali, Ausaf A. Bari, Sharona Ben-Haim, Edward Chang, Clement Hamani, Carl Hacker, Amgad S. Hanna, Andrew L. Ko, Kai J. Miller, Nikhil K. Murthy, Jonathon J. Parker, Shervin Rahimpour, Ashwin G. Ramayya, Abigail J. Rao, Hamid M. Shah, Doris D. Wang,

Course Description: This symposium will explore innovations neuromodulation and ablative techniques to treat pain disorders and the underlying molecular and circuit dysfunctions underlying pain. Topics will cover treatments and novel understanding for origins of trigeminal neuralgia, central pain, back pain, oncologic pain, and neuropathic pain. Expert faculty will discuss available options for neuromodulation for pain, including deep brain stimulation, motor cortex stimulation, open loop spinal cord stimulation, closed loop spinal cord stimulation, dorsal root ganglion stimulation, temporary peripheral nerve stimulation, and permanent peripheral stimulation. Panelists will discuss advantages and disadvantages of each technique and will provide pearls for when to consider each type of neuromodulation.

8:00 am-4:15 pm



SYM04: Spine and Neurotrauma Bundle

Composed of two sessions: SYM04A & SYM04B. Select this option to take both at a discounted rate.

8:00 am-12:00 pm

TR

SYM04A: Case Based Education in Neurotrauma for the Practicing Neurosurgeon

Course Directors: Ryan S. Kitagawa, Emily P. Sieg

Faculty: Randy S. Bell, Justin Davanzo, Ramesh Grandhi, John Greer, Zachary Hickman, Alan S. Hoffer, John Kanter, Nicolas Khattar, Rohit K. Khanna, Chris J. Neal, Enyinna L. Nwachuku, Christian B. Ricks, Berje H. Shammassian

Course Description: Participants will learn about the guidelines, best practice parameters and updates in management of both traumatic brain injury and spinal cord injury from experts in the field. The focus will be on case based learning to improve clinical practice and prepare for the oral boards. Cases will focus on key principals in Neurotrauma. In addition to expanding the attendee's clinical knowledge, another focus of the presented cases will be to prepare for oral board success.

12:45-4:15 pm

SP/TR

SYM04B: Surgical and Postoperative Management of Spinal Trauma



Course Director: Erica F. Bisson, Wilson Z. Ray

Faculty: Erica F. Bisson, Justin M. Brown, Stephen S. Burks, Timothy Chryssikos, Sanjay S. Dhall, Anthony M. DiGiorgio, Michael G. Fehlings, James S. Harrop, Patrick C. Hsieh, John C. Liu, Alpesh Patel, Wilson Z. Ray, Charles A. Sansur, Saman Shabani, Laura A. Snyder, Andrew C. Vivas, Corey T. Walker, Thomas J. Wilson

Course Description: This symposium will present a comprehensive overview of spinal trauma management by leading experts in the field. Topics will include: Initial ER and imaging evaluation with frequently missed injuries, non-operative management of stable spine fractures, acute neuroprotective management strategies in neurological compromise, timing of surgery and what indicates delayed surgery, surgical techniques for thorocolumbar fractures (fusion vs motion preservation), cervical spine trauma surgical management, unique challenges and solutions for pediatric spine trauma, complications in spinal trauma surgery and management, predictors of spinal trauma outcomes, application of emerging spinal technologies to trauma surgery, and the use of nerve transfer in patients with persistent postoperative neurologic deficit.

8:00 am-12:00 pm



SYM05: Operative Spine Video Theater: Unlocking the Essential Elements of Surgery

Course Directors: Andrew K. Chan, Michael Galgano, Eric A. Potts Faculty: Kai-Ming G. Fu, Ziya L. Gokaslan, Osama Kashlan, Sanjay Konakondla, Yi Lu, Praveen V. Mummaneni, Martin H. Pham, Laurence D. Rhines, Christopher I. Shaffrey, Rajiv Saigal, Eve Tsai, Juan S. Uribe

Course Description: A panel of established and well-published experts in their field will present surgical video cases within their specialty. This half-day symposium will be separated into sections (degenerative spine, tumor, complex deformity, minimally invasive, robotics). The videos will include high definition quality with well-edited footage, featuring salient features of the surgeries. A panel of experts for each section will lead a discussion with the presenter following the presentations, focusing on clinical pearls and identification of key challenges.

12:45-4:15 pm

U/W

SYM06: 3D Surgical Neuroanatomy

Course Directors: Joao Paulo Almeida, Maria Peris-Celda Faculty: Guillermo Aldave Orzaiz, Juan C. Fernandez-Miranda, Paul A. Gardner, Vanessa Milanese Holanda Zimpel, Varun R. Kshettry, Jeffrey M. Sorenson, Kaan Yagmurlu, A. Samy K. Youssef

Course Description: Relevant surgical neuroanatomy and operative cases by master surgeons using 3-D stereoscopic projection with a focus on skull-base, vascular, cortical, and subcortical anatomy.

5:00-6:30 pm

CNS International, Resident, and Foundation Reception

■ Pool Deck, JW Marriott Los Angeles L.A. LIVE
International meeting attendees, residents, and CNS
Foundation donors and awardees - we welcome you
to join your colleagues from around the world at this
reception! Enjoy hors d'oeuvres and cocktails while
chatting with some of the top international professionals
in the field of neurological surgery. All residents,
international registered attendees, and CNS Foundation
donors and awardees and their registered guests are
invited to attend.

6:30-8:30 pm

SP/IN

Dinner Seminar 1: Disruptive Technology in Spine Surgery

■ Perch LA

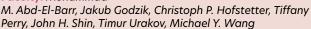
\$225 (includes three-course dinner and beverages)

Advance Registration Required

Moderators: Victor W.

Chang, Paul Park

Faculty: Muhammad



Seminar Description: Technological advancements in spine surgery continue developing at an astounding rate. This dinner seminar will foster discussion on some of the latest trends in the management of patients with spinal disorders. Topics to be covered include robotics, endoscopy, and artificial intelligence.

PRICING: Full Day Discounted Bundles (includes lunch): Physician \$600; Nurse/NP/PA \$300; Resident/Medical Student \$175 Half Day: Physician \$450; Nurse/NP/PA \$200; Resident/Medical Student \$125

SPECIAL SYMPOSIA:

8:00 am-4:15 pm



Special Symposium 04: The Fessler Legacy-Innovations in Minimally Invasive Spine Surgery

Course Directors: John E. O'Toole, Laura A. Snyder

Faculty: Neel Anand, Sean D. Christie, Nader S. Dahdaleh, Kurt M. Eichholz, Richard D. Fessler, Ricardo B. Fontes, Anthony Frempong-Boadu, Vishal C. Gala, Andrew J. Grossbach, Robert E. Isaacs, Manish K. Kasliwal, Larry T. Khoo, Hani Malone, Ehud Mendel, Pierce D. Nunley, Alfred T. Ogden, Mick J. Perez-Cruet, Sheeraz Qureshi, Patricia B. Raksin, Faheem A. Sandhu, Zachary A. Smith, Lee A. Tan, Albert E. Telfeian, Vincent C. Traynelis, Juan S. Uribe, Jean-Marc Voyadzis, Michael Y. Wang

Course Description: This full-day course will review the most modern applications of minimally invasive spine surgery with a particular focus on how current practices have evolved from the foundational contributions of Dr Richard Fessler to the field of MIS. Presentations will cover the gamut of the MIS ecosystem including techniques, technologies, career strategies and operative videos. Early registrants will receive a signed copy of the NEUROSURGERY MIS Supplement at the symposium!

8:00 am-4:15 pm



Special Symposium 05: Orbital, Periorbital, and Other Minimally Invasive Approaches to the Skull Base, A Collaboration Between CNS and NASBS



Course Directors: Siviero Agazzi, L. Madison Michael, Maria Peris-Celda

Faculty: Garni Barkhoudarian, Hamid Borghei-Razavi, Lola B. Chambless, Raymond Cho, William T. Couldwell, Davide Croci, Amir R. Dehdashti, James J. Evans, Brian Fowler, Paul A. Gardner, Kyle Godfrey, Heather C. Grimaudo, Carl B. Heilman, Robert Heller, Claudia Kirsch, Matthew J. Koch, Andrea Kossler, Howard Krauss, Ali F. Krisht, Varun R. Kshettry, Alexander Kuffer, Maurizio Lacoangeli, Joseph C. Maroon, Kristen Moe, Ju Hyung Moon, Daniel M. Prevedello, Sanjeet Rangarajan, Shaan M. Raza, Pablo F. Recinos, Theodore H. Schwartz, Susan T. Stefko, Alexander X. Tai, Jamie J. Van Gompel, Georgios A. Zenonos, Nathan T. Zwagerman

Course Description: This year's NASBS-CNS symposium will focus on minimally invasive and keyhole approaches to the skull base. The following approaches will be discussed:

- Transorbital Neuro Endoscopic Approaches
- Endonasal Approaches
- Lateral Orbital Approaches
- Supra-orbital Craniotomies
- Minipterional Craniotomies
- Pretemporal Trans Cavernous Approaches
- Submandibular Retropharyngeal Approach to the Foramen Magnum and Upper Cervical Spine.

Through a combination of 3D lectures, interactive case presentations, and surgical videos, the participants will learn the indications, complications, and technical nuances of those innovative approaches for the management of tumors and vascular lesions around the skull base.

8:00 am-4:15 pm



Special Symposium 06: Transforming Neurosurgery Through Technology: The Innovation Symposium

Course Directors: David L. Dornbos, Uzma Samdani
Course Description: This course provides a unique service to
our members by providing access to premier innovators in the
neurosurgical space, representing neurosurgeon-entrepreneurs,
engineers, industrial partners, and investment professionals
without the usual limitations of ticketed CME sessions. In this nonCME setting, we will be able to allow direct discussion of unique
approaches to innovation that can lead to return on investment
for our members and industry partners.

8:00 am-4:15 pm



Special Symposium 07: Meeting of the Americas Course Directors: Garni Barkhoudarian, Peter Nakaji, Leonardo

Course Directors: Garni Barkhoudarian, Peter Nakaji, Leonardo Rangel-Castilla

Faculty: Armando Alpizar-Aguirre, Arnau Benet, Carl Bruce, Feres E. Chaddad Neto, Robert J. Dempsey, Yoshua Esquenazi, Samuel K. Goldsmit, Juan Luis Gomez Amador, Fernando Gonzolas, Gerardo Guinto Balanzar, Vanessa M. Holanda, Douglas S. Kondziolka, Gerardo X. Lang, Jorge M. Mura, Ambar Perez, Pavel Pichardo Rojas, Daniel M. Prevedello, Mariana Romero, Maria M. Toledo, Luis M. Tumialan, Fernando L. Vale, Jose E. Valerio

Course Description: The Meeting of the Americas will bring together a broad representation of neurosurgical speakers from Latin America, Brazil, and the US to showcase the richness of advances from this region so they are more readily available to the US. The meeting is organized by subspecialties, to highlight progress in each.

SYMPOSIA

8:00 am-4:15 pm



SYM07: Association of Neurosurgical Physician Associates (ANSPA) Annual 2025 CME Meeting Presented in Collaboration with the CNS

Complimentary to all Physician Associates, Nurse Practitioners, Nurses, and Affiliate Members.

Course Directors: Alice Edwards, Jonas Konan, JoDee Winter Faculty: Joshua Bakhsheshian, Richard Zimmerman, Experts in the Field of Neurosurgery

Course Description: This session is specifically designed by the Association of Neurosurgical Physician Associates for Physician Associates and Nurse Practitioners that are practicing in, or interested in, neurosurgery to provide educational updates in didactic and hands-on training.

8:00 am-4:15 pm



SYM08: Swimming with the Sharks

Course Directors: Nitin Agarwal, D. Kojo Hamilton

Faculty: John Berry-Candelario, Paul J. Camarata, Lola B. Chambless, Julie L. Chan, Lawrence S. Chin, Geoffrey P. Colby, E. Sander Connolly, Galal Elsayed, Nisha Gadgil, Anand V. Germanwala, C. Rory Goodwin, Murat Gunel, Tiffany Hodges, Brian L. Hoh, Michael E. Ivan, Pamela S. Jones, Alexander A. Khalessi, Douglas S. Kondziolka, Raj S. Lavadi, Jody Leonardo, Elad I. Levy, Linda M. Liau, Bryan A. Lieber, David D. Limbrick, Russell Lonser, William J. Mack, James M. Markert, Joseph C. Maroon, Michael M. McDowell, James H. Mooney, Jeffrey P. Mullin, Stephan Munich, Greg Murad, Edjah K. Nduom, Christina Notarianni, Akash J. Patel, Ganesh Rao, Daniel K. Resnick, Renee M. Reynolds, Christian B. Ricks, Manan Shah, Michael P. Steinmetz, Martina Stippler, Ajith J. Thomas, Daniel Tonetti, Jamie S. Ullman, Timothy Wang, Stacey Q. Wolfe, Isaac Yang, Daniel Yoshor, Gregory J. Zipfel, Nathan T. Zwagerman

Course Description: "Nobody wants to swim with sharks," as noted in How to Swim with Sharks: A Primer. As Voltaire Cousteau writes, some, "by virtue of their occupation, find they must swim." This course highlights lessons learned through the experience of faculty and residents. The goal is to help build resiliency by learning from those who have walked the same path before. This course is intended for residents, medical students, and foreign medical graduates. Faculty includes chairpersons, program directors, program coordinators, and recent graduates. Topics range from overcoming mistakes in training to creating a pathway for a successful career. Small group sessions will enable medical students to prepare for interviews and residents to prepare for job search with cover letter and career proposal review. Sessions feature dedicated time with thought leaders in the field.

8:00 am-4:15 pm



SYM09: Shaping the Future of Neurotrauma: Lessons from the Past, Innovations for Tomorrow - Celebrating the 40th Anniversary of the Section on Neurotrauma and Critical Care

Course Directors: Paul M. Arnold, Patricia B. Raksin, Sarah Woodrow Faculty: M. Ross Bullock, Randall M. Chesnut, Bradley Dengler,

Michael Fehlings, Ramesh Grandhi, Mark N. Hadley, Gregory W. Hawryluk, Peter J. Hutchinson, Ryan S. Kitagawa, Geoffrey T. Manley, Donald W. Marion, Raj K. Narayan, Laura B. Ngwenya, David O. Okonkwo, Ann Parr, John Povlishock, Ross Puffer, Guy Rosenthal, Michael K. Rosner, Franco Servadei, Alan Sills, Martina Stippler, Charles Tator, Nicholas Theodore, Shelly D. Timmons, Eve Tsai, Alex B. Valadka, Jack E. Wilberger

Course Description: In honor of the 40th anniversary of the Section of Neurotrauma, the careers and work of several pivotal leaders in neurotrauma will be highlighted during an interactive day that includes a historical perspective, controversial case discussions and hints of the future. Join us as we celebrate these remarkable individuals and all they have done and are doing to advance the specialty.

8:00 am-4:15 pm

SE/W

SYM10: CSNS/WINS/Practice Based Neurosurgery Bundle

Composed of two sessions: SYM10A & SYM10B. Select this option to take both at a discounted rate.

8:00 am-12:00 pm

SE/WI

SYM10A: Navigating Practice: Lessons for Early Career Success and Changing Jobs

Course Directors: James Brett P. Fleming, Rupa Juthani
Faculty: Maya A. Babu, John A. Braca, Michelle J. Clarke, Chris Fox,
Kunal Gupta, Michele M. Johnson, Devon LeFever, Timothy H. Lucas,
Laura S. McGuire, Adam Polifka, Charles Prestigiacomo, Judith
Rosman, Matthew Vuckovich, Sarah Woodrow, Georg L. Yang
Course Description: This symposium targets senior residents
and young to mid-career faculty to inform them of their options.
There are many things all of us "wish we had known" when we
started practice. Discuss the steps to ensure a seamless transition
to practice and optimize early career development. Further, the
evidence shows that many neurosurgeons change jobs after only
1-3 years, and there are many practicalities around this decision.
Finally, there are other practice options available that will be
presented.

12:45-4:15 PM

SE/WI

SYM10B: Maximizing Neurosurgical Careers: Utilizing Expertise, Integrating APPs, and Advancing Career Opportunities

Course Directors: Ciara Harraher, Jean-Christophe A. Leveque Faculty: John R. Adler, Erica F. Bisson, Anthony Bottini, John A. Braca, Jason A. Ellis, Kevin T. Foley, Steven Giannotta, Patrick Han, Michele M. Johnson, Timothy H. Lucas, Gary Rajah, Judith Rosman, Suzanne Tharin, Ramachandra Tummala, Matthew Vuckovich Course Description: Neurosurgeons can be compensated in many

ways beyond traditional practice in a single location, including work as consultants, experts, entrepreneurs, and locums, among others. This course is designed to present the pros and cons from neurosurgeons who have earned success outside of traditional, stationary practice. Attendees will learn contract negotiation skills and tips on setting up practice to meet one's goals. In addition, advanced practice providers (APPs) are increasingly

utilized in clinic and hospital settings. While their use in primary care and ER-based settings is well-established, their use in surgical settings is less clearly defined. We will discuss the various roles that they may play in both clinic and OR roles as well as the means by which their function may differ in academic and nonacademic practices.

8:00 am-4:15 pm



SYM11: Cerebrovascular Bundle

Composed of two sessions: SYM11A & SYM11B. Select this option to take both at a discounted rate.

8:00 am-12:00 pm



SYM11A: Revascularization Indications and Techniques

Course Directors: Sepideh Amin-Hanjani, Ketan R. Bulsara, Amir R. Dehdashti

Faculty: Daniel L. Barrow, William T. Couldwell, Nickalus Khan, Ali F. Krisht, Satoshi Kuroda, Michael J. Lang, Michael T. Lawton, Jacques J. Morcos, Erez Nossek, Christopher S. Ogilvy, Jonathan Russin, Laligam N. Sekhar, Gary K. Steinberg, Rokuya Tanikaw

Course Description: Surgeons will learn current indications and techniques for revascularization to treat a variety of pathologies including Moyamoya disease, aneurysms and skull base tumors.

12:45-4:15 pm



TU)

TU

SYM11B: New Frontiers in Endovascular Surgery: Beyond Ischemic Stroke and Arterial **Malformations**



Course Directors: Andrew P. Carlson, J D. Mocco

Faculty: Matthew T. Bender, Waleed Brinjikji, Robert L. Dodd, David L. Dornbos, Peter T. Kan, Rosalind Lai, Elad I. Levy, Adel M. Malek, Leonardo Rangel-Castilla, Christopher D. Roark, Clemens M. Schirmer, Ali Sultaneh, Ajith J. Thomas

Course Description: This symposium will review endovascular indications, techniques and devices related to treatment of pseudotumor cerebri, CSF fistulae, NPH, malignancies, tinnitus and BCI.

8:00 am-4:15 pm



SYM12: Tumor Bundle

to take both at a discounted rate.

Composed of two sessions: SYM12A & SYM12B. Select this option to take both at a discounted rate.

8:00 am-12:00 pm



SYM12A: Brain Tumor Update- Management of **Malignant Brain Tumors**



Course Directors: Randy L. Jensen, Ashish H. Shah

Faculty: Manish K. Aghi, Orin Bloch, Chibawanye I. Ene, Sherise D. Ferguson, Joseph F. Georges, Isabelle M. Germano, Simon Hanft, Melanie G. Hayden Gephart, Shawn L. Hervey-Jumper, Dominique Higgins, Kimberly B. Hoang, Tiffany R. Hodges, Rupa Juthani, Philipp Karschnia, Ricardo J. Komotar, Russell Lonser, Raj Mukherjee, Brian V. Nahed, Pablo A. Valdes Quevedo, Maryam Rahman, Ganesh Rao,

Nitin Tandon, Matthew C. Tate, Nam D. Tran, Jake Young Course Description: This symposium provides an in-depth review of the latest advancements in the diagnosis, treatment, and management of aggressive brain cancers. Participants will explore cutting-edge surgical techniques, novel targeted therapies, immunotherapy approaches, and emerging technologies that are reshaping the landscape of malignant brain tumor care. The course will cover recent clinical trial results, guidelines, current standard-of-care protocols, and promising areas of research by experts in the field. Through lectures, case discussions, and interactive sessions, attendees will gain practical knowledge to enhance their clinical decision-making and improve patient outcomes.

12:45-4:15 pm

TU

SYM12B: Brain Tumor Update- Management of **Benian Brain Tumors**

Course Directors: Stephanie Cheok, Gabriel Zada

Faculty: Manish K. Aghi, Mustafa K. Baskaya, Carolina G. Benjamin, Wenya Linda Bi, Spiros L. Blackburn, Paul A. Gardner, Saniya S. Godil, Michael E. Ivan, Chris Jackson, Christina Jackson, Pamela S. Jones, Charles G. Kulwin, Michael W. McDermott, Jennifer A. Moliterno, Ramin Morshed, Farshad Nassiri, Anoop Patel, Shaan M. Raza, Olab Sanusi, Theodore H. Schwartz, Mitesh V. Shah, Jamie J. Van Gompel, Brian J. Williams

Course Description: This symposium provides an in-depth exploration of the latest advancements in the diagnosis, treatment, and management of various benign brain tumors, including meningiomas, pituitary adenomas, vestibular schwannomas, and other skull base tumors. Participants will learn about cutting-edge surgical techniques, radiation therapy approaches, and emerging minimally invasive treatments. The course will cover current best practices, guidelines, recent clinical trial results, and novel strategies for preserving neurological function and improving patient outcomes. Through lectures, case discussions, and interactive sessions with the experts, attendees will gain practical knowledge to enhance their clinical decisionmaking and patient care strategies.

8:00 am-4:15 pm



SYM13: Spine/Pediatric/Pain Bundle

Composed of two sessions: SYM13A & SYM13B. Select this option

8:00 am-12:00 pm

SP PA

SYM13A: Interdisciplinary Approach to Lumbar Spine Pain

Course Directors: Lara W. Massie, Michael D. Staudt

Faculty: Tene A. Cage, Kevin S. Chen, Benjamin D. Elder, Shivanand P. Lad, Justine D. Pearl, Julie G. Pilitsis, Heather Pinckard-Dover, Sharad Rajpal, Richard Rammo, Steven Roth, Jason M. Schwalb, Ganesh Shankar, Geoffrey Stricsek, Alexander Taghva, Jamie R.

Course Description: This symposium will highlight the importance of a collaborative and interdisciplinary approach to managing pain originating from lumbar spine disease.

12:45-4:15 pm

SP/PE

SYM13B: Pediatric Spinal Deformity

Course Directors: Mari L. Groves, Amer F. Samdani

Faculty: Mohammed A. Alshareef, Lindsay Andras, David F. Bauer, Christopher M. Bonfield, Katie P. Fehnel, Rajiv Iyer, Andrew H. Jea, Darryl Lau, Jonathan E. Martin, Jamal McClendon, Taemin Oh, Jennifer Strahle, Steven W. Hwang

Course Description: This symposium will provide up-to-date treatment strategies for complex spinal deformities in children including the use of gravity halo traction, selective thoracic fusion, spinal tethering, vertebral column resection, anterior column fusion, and pedicle substraction osteotomy.

8:00 am-12:00 pm



SYM14: Movement Disorder Surgery: Approaches and Techniques

CNS | SANS

Course Directors: Shabbar F. Danish, Doris D. Wang

Faculty: Iahn Cajigas, Andrew K. Conner, Islam Fayed, Kelly Foote, Jason L. Gerrard, Lora W. Kahn, Daniel R. Kramer, Bornali Kundu, Brian Lee, James McInerney, Cameron C. McIntyre, Seth F. Oliveria, Michelle Paff, Jonathon J. Parker

Course Description: Deep brain stimulation and lesioning are effective treatments for Parkinson's disease, essential tremor, and dystonia. This course will explore innovations in surgical targeting, novel methods of ablation such as focused ultrasound, and recent technological advances in brain stimulation, such as closed-loop systems. Participants will receive didactic lectures and have the opportunity to practice with cutting-edge surgical equipment.

12:45-4:15 pm

GE/MS

SYM15: Neurosurgeon Scientist CNS Symposium

Faculty: Bob S. Carter, Issac Chen, E. Antonio Chiocca, Zoher

Course Directors: Constantinos G. Hadjipanayis

Ghogawala, Melanie G. Hayden Gephart, Michael R. Levitt, Linda M. Liau, Michael Lim, L. Dade Lunsford, William J. Mack, Nader Pouratian, Sameer A. Sheth, Ziv Williams, Gregory J. Zipfel Course Description: The Neurosurgeon-Scientist CNS Symposium will be an opportunity for residents, fellows, and young neurosurgery faculty to interact with established neurosurgeon-scientists from different sub-specialties. Attendees will include the SNS Neurosurgeon-Scientist Training Program, NIH K12, NIH R25, Academy Emerging Investigator Program (EIP), Emerging Investigator Program Spine (EIPS), and Van Wagenen award recipients. Attendees will learn about different career paths to becoming a neurosurgeon-scientist. The role of mentorship and departmental support will be discussed for the development of neurosurgeon-scientists. Also, mentored career development award opportunities available to neurosurgery faculty and trainees will be

1:00-3:00 pm

Resident SANS Challenge Preliminary Rounds

discussed. NIH representatives will attend the symposium as well.

GENERAL SCIENTIFIC SESSION I

4:30-6:30 pm

See page 14 for session details.

OPENING RECEPTION

6:30-8:00 pm

Join us at the Opening Reception at the JW Marriott Los Angeles L.A. LIVE!









Look for this image for a SANS exam that accompanies this course and can be purchased on the Annual Meeting registration site.

GUIDELINES SESSIONS

7:00-8:30 am

AP/TU Guidelines Sessions I: Low Grade Glioma

Moderators: Kristin Huntoon, David R. Ormond Faculty: Jeffrey Olson, Navid Redjal, Mateo Ziu

Session Description: This course explores the role of CNS Guidelines in delivering evidence-based recommendations for common neurosurgical conditions, with a focus on low-grade gliomas. Participants will analyze key conclusions from recent CNS Guidelines projects and learn to apply these recommendations to enhance clinical decision-making and improve patient outcomes.

AP/CV Guidelines Sessions II: Clinical and Radiographic Follow-up for Treated and Untreated Brain Aneurysms

Moderators: Ketan R. Bulsara, Aditya S. Pandey

Faculty: Carlos A. David, Ricardo A. Hanel, Christopher S. Ogilvy, Andrew J. Ringer, Clemens M. Schirmer, Ajith J. Thomas

Session Description: The CNS Practice Parameters are the synthesis of the best available information, supplemented by expert opinion on focused clinical topics. These come into application where there is not enough high-quality published evidence to develop an evidence-based guideline.

SUNRISE SCIENCE SESSIONS

7:00-8:30 am

The Sunrise Science sessions will be comprised of the top oral abstract presentations submitted in each of the subspecialties presenting the latest scientific research.

WINS AND LBGTQ+ BREAKFAST SEMINAR: Neurosurgical Leadership: Owning Your Voice at the Table

7:00-8:30 am

Moderators: Lindsey Ross, Nina Yoh

Faculty: Ruth E. Bristol, Stephanie H. Chen, Sherise D. Ferguson,

Nestor R. Gonzalez, Justin A. Neira, Debbie K. Song

Description: Join us for a dynamic breakfast session exploring how neurosurgeons can lead with impact by owning their voice at the table. This course will provide actionable strategies for navigating leadership, and negotiating institutional barriers.

GENERAL SCIENTIFIC SESSION II

8:40 am-12:10 pm

See page 14 for session details.

LUNCHEON SEMINARS

12:20-1:50 pm

All Luncheon Seminars include a plated lunch served in the seminar room. The Luncheon Seminar fee is \$150 each (\$100 for residents, fellows, medical students, and advance practice providers).

M/M M01: Peripheral Neuropathy: A Surgical Disease

Moderators: Justine D. Pearl, Thomas J. Wilson

Faculty: Kevin Hines, Line G. Jacques, Seth F. Oliveria, Erika A.

Petersen, Richard Rammo

Seminar Description: During this lunch seminar, the various surgical options to managing peripheral neuropathy will be discussed.

SE/GE/W MO2: Navigating Pitfalls: Stories of Mistakes and Growth

Moderators: Sonia V. Eden, Alan M. Scarrow

Faculty: Steven N. Kalkanis, Claire Karekezi, Elad I. Levy, Karin M. Muraszko, Joseph S. Neimat, Ann Parr, Nathan Selden

Seminar Description: This seminar will include a discussion of how failures in leadership can be instructive. The discussion will involve negotiation breakdowns, takeover of practice or institution by other entities, leaving of key faculty, having to fire people close to you, and more.

LUNCHEON SEMINARS Continued

12:20-1:50 pm

CV/IN MO3: Integrating Augmented Reality and **Robotics into Cerebrovascular Practice**

Moderators: David J. Altschul, Walter C. Jean

Faculty: Jason Davies, Pascal Jabbour, David J. Langer, Vitor M.

Seminar Description: This seminar will review the current available platforms from different users, discuss workflow, and review the best protocols for use.

TU/N M04: Biomedical Optic Imaging for the **Brain Tumor Surgeon**

Moderators: John Y. Lee, Pablo Valdes Barrera

Faculty: Francesco Acerbi, Orin Bloch, Daniel A. Orringer, Kevin

Petrecca, Walter Stummer, Georg Widhalm

Seminar Description: Visualization of intracranial anatomy was revolutionized by the introduction of the microscope in the 1950s. However, magnification and illumination alone with reflectance is only the beginning of what can potentially be seen during brain tumor surgery. In this seminar, we will start with principles of biomedical optics that allow the neurosurgeon to understand what it is that they are seeing. We will explore FDA-approved technologies such as fluorescence and confocal imaging. Finally, we will evaluate future biophotonic imaging technologies.

SF M05: Decision Making During Focused Ultrasound Thalamotomy

Moderators: Vivek Buch, Shervin Rahimpour

Faculty: Howard M. Eisenberg, Casey H. Halpern, Drew S. Kern, Vibhor Krishna, Francisco Ponce, Sepehr Sani, Jasmine Thum

Seminar Description: Given the rising popularity and demand of Focused Ultrasound Thalamotomy to treat tremor disorders, the seminar is geared towards a more nuanced approach to decision making for using FUS to treat different tremor etiologies (ET, PD, dystonic tremors). The seminar will explore the risks and benefits of this technique compared to DBS surgery, as well as techniques and approaches that increase efficiency and decrease side effect profile.

SP M06: Spinoplastics: A Collaborative Approach to Treating Complex Wound Issues in Spine **Patients**

Moderators: Michael Bohl, Alexander Ropper

Faculty: Maziyar Kalani, Edward Reece, Jay D. Turner, Michael S.

Virk, Timothy F. Witham, Christina Wright, David S. Xu

Seminar Description: Spinoplastic Surgery is a rapidly evolving field within neurosurgery. The symposium aims to bring together leading experts in the field to discuss the latest advancements, techniques, and challenges in spinoplastic surgery. By fostering collaboration and knowledge exchange with plastic surgeons and neurosurgeons, this symposium will contribute to improving patient outcomes and advancing the practice of neurosurgery. Topics will include wound closure techniques, vascularized bone grafting and how to build a team of spine and plastic surgeons.

TU/PE M07: Advances in the Management of Pineal and Intraventricular Pathology in Children and Adults

Moderators: Peter Nakaji, Mark M. Souweidane

Faculty: Jeffrey Campbell, Alan R. Cohen, Richard Ellenbogen, Gerald A. Grant, Sandi Lam, Kelly B. Mahaney, Manish N. Shah, Rafael E. Vega, Anthony Wang

Seminar Description: This is a specialized seminar-jointly organized by the Tumor and Pediatric Sections—focusing on the application of advanced techniques in treating intraventricular and pineal malignancies. This comprehensive program explores the use of intraventricular endoscopy in both adult and pediatric populations, emphasizing its role in diagnosis, tumor resection, and management of associated hydrocephalus. The course covers cutting-edge endoscopic/exoscopic technologies, surgical techniques, and perioperative considerations specific to intraventricular/pineal region approaches.

TR/GE M08: Advances in Diagnosis, Management, and Treatment of NPH

Moderators: Ramesh Grandhi, Tara J. Nail

Faculty: Alexa Bramall, Justin Davanzo, Charles C. Matouk, Berje H.

Shammassian, James M. Wright

Seminar Description: This seminar will discuss new strategies for diagnosis and treatment of Normal Pressure Hydrocephalus. Imaging, clinical workup, biomarker analysis, and treatment modalities will be discussed.

@ 1:50-2:50 pm

Neurosurgery Publications: "Getting Published"

Moderator: Douglas Kondziolka

Faculty: Russell Lonser, Gabriel Zada

Session Description: This session seeks to give an overview of some of the issues that residents and early career scholars may encounter in getting published. By addressing common experiences, pearls, and pitfalls in the writing and peer review process the audience will be able to calibrate their future submissions and potentially increase their chance of success.

1:50-2:50 pm

Afternoon Beverage Break Visit the Exhibit Hall

30 **2025 CNS ANNUAL MEETING**

SECTION SESSIONS

2:50-4:20 pm

Section on Cerebrovascular Surgery 1: Vascular Malformations: Data and Dilemmas

Moderators: Ali Alaraj, Paul J. Camarata, Rose Du Session Description: This session will review current data and controversies for vascular malformations.

Drake Lecture

Laligam Sekhar

Spinal AVMs: Resect, Radiate or Observe

Michael Lawton

Unruptured AVMs by the Numbers: What Does the Data

Dictate?

Mika R. Niemela

LITT for Cavernous Malformations

Robert Gross

Oral Abstract Presentations

© Council of State Neurosurgical Societies 1:

Negotiations and Non-competes in Neurosurgery

Moderators: Desmond A. Brown, Michael Kaiser
Session Description: Non-compete clauses are a common practice in surgeon contracts. Regional differences exist, and recently they have been the subject of national policy. Contract negotiation is a reality in the career of any neurosurgeon. However, little formal training exists for physicians - including neurosurgeons - on potential techniques and strategies for conducting meaningful contract negotiation.

Non-Compete Clauses in Surgeon Contracts: Regional Variations and Emerging National Policy Trends
Kevin D. Judy, Jeremy T. Phelps, Sherry L. Taylor

Experiences with Non-Competes: Success, Failures, Lessons Learned

Jay T. Barnes

Elements of a Contract and Negotiation Timeline *Richard Menger*

Negotiation Strategy

Robert Heary

Value Creation and Integrative Negotiation

Nicole Moayeri

Data and Benchmarks

Matteo Ziu

Oral Abstract Presentations

SP/IN Section on Disorders of the Spine and Peripheral Nerves 1: Personalized Spine Surgery

Moderators: John J. Knightly, Theresa Williamson
Session Description: This session will serve as a primer on the current landscape of personalized care for spine surgery. The session will introduce the available personalized technologies that

stand to innovate patient outcomes in spine surgery, establish which patients currently may benefit most from personalized care, and uncover logistical, policy, financial, and ethical hurdles in adopting the practice.

Personalized Interbodies and Rods: Choosing the Right Patient

Andrew K. Chan

Machine Learning for Patient Selection and Surgical Optimization

Mohamad Bydon

Challenges in Implementing Personalized Spine Care: From Logistical to Policy Hurdles

Domagoj Coric

Genetic Markers to Tailor Surgical Strategy Nicholas Theodore

Oral Abstract Presentations

R Section on Neurotrauma and Critical Care 1:

Disparities in Neurotrauma

Moderators: Ryan Morton, Enyinna L. Nwachuku
Session Description: This session will highlight the importance of research and work to reduce healthcare disparities, especially in neurotrauma. We will also introduce some of the most exciting new research in neurotrauma with oral presentations on cutting edge topics.

Odette Harris Lecture and Award Presentation Oral Abstract Presentations

PA Section on Pain 1: Surgical Treatment of Rare Pain Disorders

Moderators: Sharona Ben-Haim, Nicole Bentley
Session Description: This session will discuss surgical treatment options available for rare pain disorders.

Neuromodulation vs. Lesioning for Atypical Facial Pain *Konstantin V. Slavin*

Neuromodulation for Pelvic Pain

Corey Hunter

Neuromodulation vs. Lesioning for Central Pain *Julie G. Pilitsis*

Neuromodulation for Migraines

Heather Pinckard Dover

Neuromodulation for Post-Surgical Pain: Post-Thoractomy, Post Hip/Knee/Ankle Arthroplasty Marshall Holland

Oral Abstract Presentations

SECTION SESSIONS Continued

2:50-4:20 pm

PE/IN Section on Pediatric Neurosurgery 1: Innovations in the Treatment of Hydrocephalus

Moderators: Stephanie Greene, Jennifer Strahle

Session Description: This session will explore the changing landscape of treatment options and outcome studies in the treatment of hydrocephalus.

Update on Active Clinical Trials for Hydrocephalus *William Whitehead*

Innovative Technologies in the Treatment of Hydrocephalus

Michael Muhonen

Innovations in the Medical Management of Intraventricular Hemorrhage of Prematurity

Shenandoah Robinson

Innovations in the Treatment of Normal Pressure Hydrocephalus

Mark G. Luciano

Oral Abstract Presentations

PN Section on Peripheral Nerves 1: Science of Nerve Regeneration

Moderators: Megan M. Jack, Elias B. Rizk

Session Description: Research has advanced the understanding of both peripheral nerve regeneration and when it fails. Speakers will provide new insights into axonal regeneration, Schwann cell facilitation, and inflammatory events that condition outcomes of peripheral nerve injuries.

Axonal Regeneration- Science of Pathfinding and Clinical Implications

Kacy Cullen

Influence of Schwann Cells on Axonal Regeneration Stephen S. Burks

Neuroinflammation and Neuroma Formation *Mark Mahan*

Driving Axonal Growth MechanicallySammer Shah

Oral Abstract Presentations

SF Section on Stereotactic and Functional Neurosurgery 1: Intervention for Cancer Pain: Practical Approaches Near End of Life

Moderator: Justin Hillard, Emily Levin

Session Description: Although many options exist to treat pain in other disorders, cancer patients can often get pushed into only oral pain therapy. Neurosurgeons can offer many treatment options that are not commonly thought of as first line therapy that can help patients limit oral narcotic therapy and, therefore, have improved quality of life with lower medication side effects.

Neuroablation for Cancer Pain

Ashwin Viswanathan

Palliative Options for the End Stage Cancer Patient *Brian J. Williams*

Intrathecal Pain Pumps for Cancer Pain Albert E. Lee

Oral Abstract Presentations

TU/IN Section on Tumor 1: Incorporation of Targeted Therapies in the Management of Brain Tumors in the Molecular Age

Moderators: Yoshua Esquenazi, Alireza Mansouri
Session Description: This session will delve into the latest advancements in molecular profiling of brain tumors and how this information is being leveraged to develop and implement personalized treatment strategies. Attendees will gain insights into novel targeted therapies, their mechanisms of action, and emerging clinical data, with a focus on how these approaches are reshaping the landscape of brain tumor management in the era of precision medicine.

Molecular Marker and Targeted Therapies in Meningiomas: Surgical and Clinical Implications Gelareh Zadeh

Cellular Engineered Therapies for Brain Malignancies *Michael Lim*

Targeting the Tumor Microenvironment in GBM: A Road to Novel Targeted Therapeutics

Betty Kim

Small Molecule Inhibitors and Targeted Therapy for Brain Tumors

Andrew E. Sloan

Oral Abstract Presentations

INTERACTIVE SESSIONS

4:30-6:00 pm

Complications in Cerebrovascular Surgery

Moderators: Jacques J. Morcos, Ajith Thomas

Session Description: Case based presentations and discussions will review common complications and complication avoidance for cranial and spinal vascular malformations.

Device Related Complications in Endovascular Surgery

Stavropoula I. Tjoumakaris

Vascular Injuries in Endovascular Surgery

Babu G. Welch

Approach Related Complications for Complex Vascular Malformations

Mark D. Bain

Managing Complications in Open Treatment of Aneurysms

Sepideh Amin-Hanjani

Complications Avoidance for Spinal Vascular Malformations

Michael T. Lawton

Avoiding Complications When Treating Venous Pathology

Kyle Fargen

SE Medical Malpractice Expert Testimony Do's and Don'ts

Moderators: Brain R. Gantwerker, Jason D. Stacy
Session Description: This panel will use real-world examples
to explain the anatomy of a lawsuit and the different points at
which expert testimony is sought. This session will also discuss
testimony scope, billing, and ethics.

Anatomy of a Lawsuit

Jeremy Phelps

Standard of Care: What is it and Who Decides?

Gregory Trost

The Reality of Being Deposed

Alex B. Valadka

Do's and Don'ts of Expert Testimony

H. Hunt Batjer

How Do You and Your Practice Survive a Lawsuit?

Ann M. Parr

Cases I Look For

Tina Odjaghian

What I Wish My Clients Knew Before They Met Me

Maria Hovsepian

SP Chronic Low Back Pain

Moderators: Langston T. Holly, Marjorie C. Wang

Session Description: This session will cover standard of care and current guidelines for chronic low back pain management. It seeks to equip the audience with an understanding of current best practices, as well as how to consider the roles of neuromodulation, interventional pain, and emerging biologic therapies versus standard of care treatment options.

Guidelines: When Should We Operate on Chronic Low Back Pain?

Zoher Ghogawala

Insurance Authorization for Low Back Pain Surgery *Luis M. Tumialan*

Navigating the Opioid Epidemic in Chronic Low Back Pain Care: Pre-Operative Decision Making

Abhaya Kulkarni

Biomarkers and Advanced Imaging for Chronic Low Back Pain

Anand Veeravagu

Updates in Neuromodulation for Chronic Low Back Pain

Ashwin G. Ramayya

Wearable Technology Can Impact Chronic Low Back Pain Management

Corinna C. Zygourakis

How Do We Mitigate the Epidemic of Failed Back Surgery Syndrome?

Christoph P. Hofstetter

Are Technological and Scientific Advances (PET/MRI, Stem Cells, PRP) the Future of Chronic Low Back Pain Care?

Anthony Frempong-Boadu

R Crossfire Debates in Neurotrauma

Moderators: Zachary L. Hickman, Grant W. Mallory

Session Description: Join experts in the field as they debate the controversies in management of brain and spine trauma. Learn about the newest guidelines and treatment strategies through the excitement of controversy.

Spine Trauma Debate: Cervical

Michael McGinity vs. Gregory W. Hawryluk

Spine Trauma Debate: Thoracolumbar

Nitin Agarwal vs. Jacob Joseph

Cranial Trauma Debate

Jordan Komisarow vs. Laura B. Ngwenya

Trauma Critical Care Debate

Alan S. Hoffer vs. Christian B. Ricks

INTERACTIVE SESSIONS Continued

4:30-6:00 pm

Intraoperative Neuromonitoring for Spinal Cord Stimulation

Moderators: Steven M. Falowski, Heather Pinckard-Dover Session Description: This session will cover the role that intraoperative neuromonitoring can have in influencing outcomes with spinal cord stimulation

IONM Modalities and Their Utility

Tyler J. Ball

Tips and Tricks to Optimize IONM for SCS

David P. Darrow

The Use of IONM for DRG Stimulation

Steven M. Falowski

Debate: IONM Improves SCS Outcomes

Ellen L. Air

Debate: IONM Does Not Improve SCS Outcomes

Michael D. Staudt

IONM as a Research Tool

Ahmed M. Raslan

Using IONM for High Resolution Mapping

Ilknur Telkes

Panel Discussion

PE Is this Spinal Cord Tethered?

Moderators: Paul A. Grabb, Petra Klinge

Session Description: This session will review the grey areas of treatment for tethered cords where there is significant variation in current clinical practice. This will include presentation of the best current evidence for when surgery is beneficial as well as presentation of cases that highlight clinical variation.

Do I Care About This Cutaneous Finding?

Brent R. O'Neill

Do I Need to Cut This Fatty Filum?

Robin M. Bowman

Should I Untether This Cord Even Though This Child had no Symptoms?

Christina M. Sayama

Role of Prophylactic Untethering in Myelomeningocele Scoliosis

Eisha Christian

What is Adult-Onset Tethered Cord Syndrome?

Mark S. Dias

Role of Spinal Shortening in Treatment of Tethered Cord

Andrew H. Jea

Case Presentations and Discussion

PN Difficult Peripheral Nerve Cases

Moderators: Ausaf A. Bari, Marie-Noel Hebert-Blouin, Lukas G. Rasulic

Session Description: This session will focus on advances that make challenging cases more manageable. Part of the format will include an open microphone for discussion, ranging from new research ideas, complicated clinical management/decision-making, grant ideas, and recent research in the field.

Management of Challenging Lumbosacral Plexus Tumors

Robert J. Spinner

Where to Consider Advanced Prosthetics for Brachial Plexus Injuries

Oskar Aszmann

When to Fuse the Shoulder- Outcomes and Indications

Bassem Flhassan

Challenges in Managing Lower Extremity Nerve Injuries
Allan J. Belzbera

Research that Advances Care: What is on the Horizon? *Justin M. Brown*

Optimal Diagnosis for Optimal Outcomes in Thoracic Outlet Syndrome

Eric L. Zager

Functional Neurosurgery for New or Non-Functional Neurosurgeons and APPs

Moderators: Andrew L. Ko. Albert E. Lee

Session Description: This session will provide help and guidance for a new functional neurosurgeon, APP or general neurosurgeon to get a functional practice started at a location that has not previously had a functional presence. Keys to help avoid difficulties in starting or running a functional practice will be presented.

What Kind of Surgeries/ Therapies are Done in Functional Practices?

Peter E. Konrad

Diagnosis and Indications for Surgery in PD/ETSarah K. Bick

How to Assemble a Functional Neurosurgery Team *Aviva Abosch*

Equipment and Staff Requirements in and Outside the Operating Room

Michael Kinsman

Role of APPs in Functional Practice

Susan Heath

RN and APP Preoperative and Post Operative Care/ Concerns

Dana Dolce

DBS Programming for Beginners

Monica Volz

Reimbursement Considerations for Functional Neurosurgery Procedures

Joshua M. Rosenow

Use of Ultrasound Technologies in Neurosurgical Oncology

Moderators: Angela M. Richardson, Zion Zibly

Session Description: This session will explore the cutting-edge applications of ultrasound in brain tumor surgery and treatment. Techniques discussed will include advanced ultrasound imaging for non-invasive tumor ablation and ultrasound-mediated drug delivery techniques to overcome the blood-brain barrier in tumors and potential use for non-invasive biopsies.

Sonocloud Clinical Trial for Enhanced Drug Delivery to Brain Tumors

Adam M. Sonabend

FUS for Opening the BBB: Clinical Implications and Future

Ying Meng

Noninvasive Sonobiopsy

Eric C. Leuthardt

Ultrasound-based Histotripsy Technology for Treatment of Brain Malignancies

Aditya S. Pandey

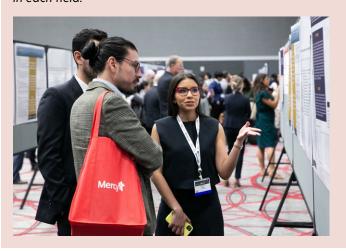
Sonodynamic Therapy

Constantinos G. Hadjipanayis

4:30-6:00 pm

Interactive Poster Presentation Session with Wine and Cheese Reception

The interactive poster session aims to invigorate scientific presentation and discussion, complemented by wine and cheese. Selected abstract authors will present mini-oral presentations in the poster hall, highlighting key advances in each field.



6:00-7:30 pm

Medical Student Town Hall

We invite all medical students to attend the Medical Student Town Hall! You will have the opportunity to interact with leadership from residency programs and network with other medical students and residents.



7:30-9:30 pm



Dinner Seminar 2: Open Neurovascular Surgery: Shaping the Future

- Mastro's Ocean Club
- \$225 (includes three-course dinner and beverages)
- Advance Registration Required

Moderators: Luca Regli, Ali Zomorodi

Faculty: Sepideh Amin-Hanjani, Daniel L. Barrow, Mustafa K. Baskaya, Fady Charbel, Nima Etminan, Jean G. de Oliveira, Jonathan Russin, Martin Sames

Seminar Description: This seminar will explore opportunities in open neurovascular surgery for clinical and scientific innovation.



GUIDELINES SESSIONS

7:00-8:30 am

№/SP Guidelines Sessions III: Cervical Spinal Cord Injury

Moderator: Jakub Godzik

Faculty: Mark N. Hadley, Camilo A. Molina, Michael S. Virk, Scott L. Zuckerman

Session Description: Review modern available data on management, timing of treatment, and surgical options of spinal cord injury. Discuss modern controversies and assess state of

literature relating to cervical spinal cord injury.

AP/TU Guidelines Sessions IV: Brain Metastases

Moderator: Kristin Huntoon, David R. Ormond Faculty: Brad Elder, Mark E. Linskey, Jeffrey Olson Session Description: Emerging therapies update in the management of brain metastases.

SUNRISE SCIENCE SESSIONS

7:00-8:30 am

The Sunrise Science sessions will be comprised of the top oral abstract presentations submitted in each of the subspecialties presenting the latest scientific research.

ASBN BREAKFAST SEMINAR: Five Years Forward: The Evolution of Representation and Inclusion in Neurosurgery

7:00-8:30 am

Moderators: Owoicho Adogwa, Sonia Eden, Nnenna Mbabuike Faculty: Richard Benson, Arnett Klugh, Monte Masters, Robbie Robinson, Lindsey Ross

Seminar Description: In collaboration with the Congress of Neurological Surgeons (CNS), the American Society of Black Neurosurgeons (ASBN) presents a critical breakfast seminar examining the state of Black representation in neurosurgery five years after the social unrest of 2020. While DEI initiatives once held center stage, the national and political climate has shifted, leading many institutions to deprioritize these efforts. Has progress stalled? Is the conversation still necessary? This session will explore the challenges and opportunities in sustaining equity-driven initiatives, strategies to navigate this evolving landscape, and the importance of maintaining our collective commitment to diversity in neurosurgery. Thought leaders will discuss how to ensure that equity remains central to the profession's future.

GENERAL SCIENTIFIC SESSION III

8:40 am-12:10 pm

See page 15 for session details.



LUNCHEON SEMINARS

12:20-1:50 pm

All Luncheon Seminars include a plated lunch served in the seminar room. The Luncheon Seminar fee is \$150 each (\$100 for residents, fellows, medical students, and advance practice providers).

SP/GE/RE T09: Honored Guest Lunch: Daniel K. **Resnick: Forks in the Road: Early Career Decisions** and Lessons from a Neurosurgeon's Journey

Moderator: Nathaniel Brooks

Seminar Description: In this session, Dr. Daniel K. Resnick shares pivotal moments from his career as a spine surgeon, reflecting on the key decisions, unexpected challenges, and personal values that shaped his professional journey. Drawing on years of leadership, mentorship, and clinical experience, Dr. Resnick offers candid insights into the complexities of early career choices-including academic versus private practice, specialization, leadership paths, and work-life balance. This session is ideal for trainees and early-career neurosurgeons seeking perspective, guidance, and inspiration from one of the field's most respected voices.

SE T10: Keeping Neurosurgical Fingers on the **Pulse of Health System's Financial Footprint**

Moderators: Abilash Haridas, John Sampson

Faculty: Ellen L. Air, Joseph S. Cheng, Eric Eskioglu, Matthew G. Ewend, Steven N. Kalkanis

Seminar Description: Hospital-employed or health system supported neurosurgeons are being affected by facility finances and increasingly expected to have a positive impact on these for their program. This session will provide expertise from health system leaders on how to keep neurosurgery on the forefront and highlight the importance of neurosurgery to a health system's financial footprint.

CV T11: Current Recommendations for Reversal of Antiplatelets and Anticoagulation

Moderators: Emily P. Siea

Faculty: Ramsey R. Ashour, Brian Kelly, Shahid M. Nimjee, Clemens M. Schirmer, Martina Stippler, Shahed Toossi

Seminar Description: This seminar will review the current recommendations for the reversal of antiplatelets and anticoagulation on the elective and emergent timeline.

TU T12: Neuro-oncology and Quality of Life: **Pregnancy, End of Life and Cognitive Issues**

Moderators: Mark Linskey, Michael W. McDermott Faculty: Nduka M. Amankulor, Wajd Al- Holou, Hugues Duffau,

Marie Roguski

Seminar Description: This seminar will focus on unique challenges and management strategies for patients with brain tumors, with special emphasis on quality-of-life issues throughout the disease trajectory. Covered will be holistic care of brain tumor patients and critical aspects of patient well-being beyond tumor management, including neurological, endocrine, and psychosocial challenges as well as pregnancy considerations, end-of-life care, and cognitive issues.

SF/PE T13: Evaluation and Treatment of Secondary Dystonia

Moderator: Patrick Graupman, Darcy Fehlings

Faculty: Daniel Curry, Benjamin C. Kennedy, Stephen Harward, Kim **Burchiel**

Seminar Description: Treatment of secondary dystonia from cerebral palsy and other causes is challenging and treatment options continue to evolve. This seminar will review the most recent information about treatment options including DBS and intrathecal baclofen.

SF T14: Surgery for Generalized Epilepsy

Moderators: Robert E. Gross, David Satzer

Faculty: Kristian Bulluss, David Burkholder, Seok Ho Hong, Vanessa Milanese Holanda Zimpel, George Ibrahim

Seminar Description: This seminar will explore the role of surgery in the treatment of generalized epilepsy, focusing on the latest advancements in diagnostic techniques and surgical approaches. Attendees will gain insights into patient selection, perioperative considerations, and outcomes associated with surgical interventions for generalized epilepsy. Case studies will be used to illustrate key principles and challenges in clinical practice.

SP T15: Monitoring Mishaps: Avoiding the Worst-**Case Scenarios**

Moderator: Michael Y. Wang, Adam Kanter

Faculty: Joseph S. Cheng, Anthony M. DiGiorgio, Langston T. Holly,

Thomas Mroz, Paul Park

Seminar Description: Faculty and attendees will discuss neuromonitoring alerts and the management strategy for these alerts, as well as the neuromonitoring checklist.

PN T16: Radiculopathy vs. Entrapment

Moderators: Line G. Jacques, Kevin Swong

Faculty: Zarina S. Ali, Jennifer Hong, Mark A. Mahan, Gabriel C. Tender

Seminar Description: Failed spine surgery may be an incorrect diagnosis. This seminar will provide practical skills for optimizing the diagnosis and treatment of both upper extremity and lower extremity complaints.

1:50-2:50 pm

Afternoon Beverage Break Visit the Exhibit Hall

1:50-2:50 pm

CNS Resident SANS Challenge Championship Round



2:00-2:30 pm

Annual Business Meeting

Plan to attend the Annual Business Meeting to hear an update on CNS business from the past year. CNS members will have the opportunity to vote on any proposed bylaws amendments.



SECTION SESSIONS

2:50-4:20 pm

Section on Cerebrovascular Surgery 2:

Managing Aneurysms

Moderators: Carlos A. David, Luca Regli

Seminar Description: This session will review nuances of intracranial aneurysms.

Hopkins Lecture

Adnan Siddiqui

Management of Aneurysms Associated with AVMs Aman Patel

De Novo Aneurysms: Data and Treatment Recommendations

Mika Niemela

Oral Abstract Presentations

SE Council of State Neurosurgical Societies 2:

Neurosurgery and Social Media

Moderators: Uzma Samadani, Brett E. Youngerman Seminar Description: Social Media continues to expand as a platform for professional and patient engagement. Experts will share successful strategies and common pitfalls.

Social Media and Neurosurgery Panel

Ali Baaj, Oren Gottried, Betsy H. Grunch, Analiz Rodriguez

Oral Abstract Presentations

Section on Disorders of the Spine and Peripheral Nerves 2: Metastatic Spinal Tumors

Moderators: John Chi, Michael P. Steinmetz

Seminar Description: This session will focus on surgical approaches to spinal metastatic disease of the cervicothoracic junction, thoracolumbar junction, and lumbosacral junction.

Metastatic Cervicothoracic Tumor

C. Rory Goodwin

Metastatic Thoracolumbar Tumor

Ori Barzilai

Metastatic Lumbosacral Tumor

Ziya L. Gokaslan

Vascularized Reconstruction After Tumor Resection

Daniel M. Sciubba

CLiMR - Column, Line of Sight, Margins, and Ring (Vertebral Ring) for Tumor Resection

Camilo A. Molina

Oral Abstract Presentations

TR Section on Neurotrauma and Critical Care 2: So, the Acute Trauma is Over, Now What? An Overview of Post-Traumatic Neurostimulation and Nerve Transfers

Moderators: Geoffrey W. Peitz, Richard B. Rodgers
Seminar Description: Faculty will discuss the newest techniques
for helping with trauma recovery in the non-acute phase
including cerebral stimulation, spinal stimulation and peripheral
nerve transfer. This will be expanded upon by introducing new,
innovative research in this specific area through oral abstract
presentations.

Cerebral Stimulation After Neurotrauma

Nicholas J. Brandmeir, Nicholas Schiff

Spinal Stimulation After Neurotrauma

David Freeman, Caio Matias

Peripheral Nerve Surgery After Cervical Spinal Cord Injury

Elias B. Rizk, Brandon Smith

Oral Abstract Presentations

PE Section on Pediatric Neurosurgery 2: Wellness and Work Life Balance in Pediatric Neurosurgery

Moderators: Renee M. Reynolds, Zulma S. Tovar-Spinoza Session Description: This session will review the struggles between being a neurosurgeon and human being, and will provide practical advice about preserving quality of life in a demanding specialty.

Dealing with Bad Outcomes

Jeffrey S. Raskin

Spirituality and Neurosurgery

Howard L. Weiner

The Tension Between Organized Neurosurgery and Parenthood

Kimberly M. Hamilton

The Future of Wellness in Pediatric Neurosurgery

Anthony M. Avellino

Oral Abstract Presentations



Neurosurgery 2: Next-Generation Therapies: Harnessing Cell and Gene Technology in Epilepsy and Movement Disorders

Moderators: Josue Avecillas-Chasin, Shervin Rahimpour
Seminar Description: Direct delivery methods for gene therapy
(such as intraparenchymal perfusion) and cell-based therapies
(like intraparenchymal cell injection) within the central nervous
system are emerging as promising strategies for treating
neurological conditions that were once considered incurable. The
growing adoption of these advanced therapeutic approaches
highlights significant progress in understanding the molecular
mechanisms behind neurological disorders, as well as advances
in viral vector and cell-based therapies, alongside innovations in
delivery technologies. This session is dedicated to discussing some
of this research and emerging advances.

Clinical Trials for Gene and Cell Therapies for Movement Disorders

Krystof Bankiewic

Translational Development of Cortical Interneuron Transplantation for Epilepsy

Derek Southwell

Neural Organoids for Restoration of Function

H. Isaac Chen

Gene Therapy for Epilepsy

William Anderson

Future Potential of Biological Neuromodulatory Tools to Treat Psychiatric Disease

Michael Kaplitt

Oral Abstract Presentations

TU/IN Section on Tumor 2: Technological Advances in Skull Base Surgery

Moderators: Christine Lee, Kristen O. Riley

Seminar Description: This session will showcase state-of-the-art technologies including advanced neuronavigational systems, intraoperative imaging techniques, and augmented reality applications that are transforming skull base surgical planning and execution. Experts will discuss how these tools enhance visualization, improve precision, and optimize outcomes in complex skull base procedures. The session will also cover novel approaches such as endoscopic endonasal surgery, virtual reality-assisted planning, and advanced radiation therapies.

Latest Technologies in MIS Skull Base

Daniel Prevedello

Frontiers in Endoscopic Skull Base Surgery

Juan C. Fernandez-Miranda

Novel Approaches in Skull Base Surgery

Theodore H. Schwartz

Integration of Novel Therapies and Technologies in Skull Base Pathologies

James Chandler

INTERACTIVE SESSIONS

4:30-6:00 pm

OV/PE Bypass During the Endovascular Era - A Joint Review with the Cerebrovascular and Pediatric Section

Moderators: Nestor R. Gonzalez, Edward R. Smith, Gary K. Steinberg Session Description: Case-based discussions that will review indications, techniques, and strategies for revascularization in the pediatric and adult population.

Revascularization for Ischemic Disease in Pediatrics *Cormac O. Maher*

Revascualarication for Ischemic Disease Adults *Erez Nossek*

Combined Bypass/Endovascular Treatments for Aneurysm

William J. Mack

Rescue Strategies for Bypass in Pediatric Moyamoya Shih-Shan Lang Chen

EC/IC vs IC/IC Strategies for Revascularization *Jacques Marcos*

Spinal Revascularization Using Endo/Open Strategies *Jacob Cherian*

SE/SP Mistakes in Spine Coding: How to Stay Out of Trouble

Moderators: Mark Oppenlander, Luis M. Tumialan
Session Description: Panelists will use case-based examples to reveal pitfalls and highlight successful strategies to maximize authorization and payment for spinal surgery.

Anterior Spine

Gregory Przybylski

Posterior Spine

Juanmarco Gutierrez

Instrumentation and Grafts

Karin R. Swartz

Trauma Fractures

Owoicho Adogwa

Intraspinous/Intralaminar/Intrafacet

Scott Meyer

Exploration/Removal/Revision

Cheerag D. Upadhyaya

Spinal Deformity

Brian Anderson

Complications

Luis M. Tumialan

Corpectomy

Mark Oppenlander

SP Spine Oncology

Moderators: Brenton Pennicooke, Daniel Sciubba
Session Description: This session will present updates on spine tumor management, focused on areas where the field has not reached a consensus. Furthermore, cutting edge technologies will be presented that stand to revolutionize how surgery is utilized for the management of spinal tumors.

The Role of Cement Augmentation for Spinal Metastases Management

Timothy J. Yee

Which Tumors Need Pre-Operation Embolization? John H. Shin

Liquid Biopsies- Where are We?Ganesh Shankar

Have Modern Therapies Changed Decision Making Frameworks for Operative vs Non-Operative Management of Spine Tumors

Jon Park

Neoadjuvant Therapies in Spine Oncology *Mark H. Bilsky*

Radiomarkers and Biomarkers for Spine Tumors
Patricia L. Sullivan

Intradural and Intramedullary Spine Tumors
Muhammad M. Abd-El-Barr

Immunotherapy and Targeted Advances Impacting Spine Oncology

Allan D. Levi



Biomarkers: An Epidemiological and Clinical Perspective

Moderators: Geoffrey T. Manley, Tara J. Nail

Session Description: An engaging session discussing the use of biomarkers in neurotrauma will be held. As more research is developed and the testing of biomarkers becomes more available, they are moving into the clinical realm. Biomarkers can help with decision to transfer, prognostication, efficiency and epidemiology. However, to some, their role remains controversial.

The Role of Biomarkers in the Epidemiology of Traumatic Brain Injury

Ramon Diaz-Arrastia, Peter J. Hutchinson

The Role of Biomarkers in Prognostication for TBI David O. Okonkwo, John K. Yue

Biomarkers and the Decision to Transfer

Nitin Agarwal, Bradley Dengler

SF Approaches to Atypical Facial Pain Syndromes

Moderators: Shabbar F. Danish, Lora Kahn

Session Description: This session will focus on approaches to this difficult disease in the context of neurosurgical options and algorithms for care.

Facial Pain Circuits and Rationale for Intervention Jonathan Miller

Extracranial Strategies for Atypical Facial Pain *Ahmed M. Raslan*

Deep Brain Stimulation for Facial Pain Syndromes *William S. Rosenberg*

Non-Surgical Management and Patient Selection for Surgical Intervention

Tyler J. Ball

Lesioning Procedures for Facial Pain *Konstantin V. Slavin*

Facial Pain Classification

David P. Darrow

DREZ for Facial Pain

Joseph S. Neimat

Panel Discussion

Dench to Bedside: Evolution of Clinical Trials

Moderators: Mahua Dey, Peter E. Fecci

Session Description: This interactive session traces the journey of novel therapies from laboratory discoveries to clinical trials, focusing on the lab discovery, IP generation, IND studies, and transition to clinical trials. Attendees will gain insights into regulatory considerations, funding strategies, ethical challenges, and strategies for improving patient enrollment and retention in neurosurgical-oncology trials from presentations and discussions from the experts.

Neural Stem Cell Delivery of an Oncolytic Adenovirus in Newly Diagnosed Malignant Glioma

Duane Mitchell

DCVax-L for Primary and Recurrent GBM *Linda M. Liau*

CAN-3110 Oncolytic Virus for Recurrent GBM

E. Antonio Chiocca

Endovascular Surgical Neurooncology *Frederick F. Lang*

Anti-EGFRVIII synNotch Receptor Induced Anti-EphA2/ IL-13Ralpha2 CAR (E-SYNC) TCells for Treating GBM Hideho Okada

Immunovirotherapy for GBM James M. Markert

5:00-6:30 pm

Interactive Poster Presentation Session with Wine and Cheese Reception

The interactive poster session aims to invigorate scientific presentation and discussion, complemented by wine and cheese. Selected abstract authors will present mini-oral presentations in the poster hall, highlighting key advances in each field.



GUIDELINES SESSIONS

7:00-8:30 am

AP/TR Guidelines Session V: Brain Trauma Foundation Guidelines for the Management of Penetrating Traumatic Brain Injury (pTBI), Second Edition

Moderators: Randy S. Bell, Gregory W. Hawryluk

Faculty: Bizhan Aarabi, Rocco Armonda, Bradley Dengler, Alan S. Hoffer, Ryan S. Kitagawa, David O. Okonkwo, Andres M. Rubino, Andrii Sirko

Session Description: This course will provide a comprehensive overview of the management of penetrating traumatic brain injury (pTBI) across the continuum of care—from pre-hospital and trauma bay protocols to surgical and critical care strategies. Participants will learn to apply a structured algorithmic approach at the bedside and explore the role of Futility Assessment in early clinical decision-making.

AP/PE Guidelines Sessions VI: Myelomeningocele

Moderator: David F. Bauer, Daniel Donoho

Faculty: Jeffery Blount, George Koutsouras, Mandeep Tamber **Course Description:** The CNS Guidelines are evidence-based summaries of the scientific literature written by topic experts to provide neurosurgeons with the information they need to provide the best care to patients suffering from common neurosurgical conditions. In the Guidelines Sessions, authors discuss the key conclusions of recent Guidelines projects to promote the dissemination of this broadly applicable information around the field. In this session, Guidelines authors discuss their conclusions regarding the treatment and management of patients with myelomeningocele.

SUNRISE SCIENCE SESSIONS

7:00-8:30 am

The Sunrise Science sessions will be comprised of the top oral abstract presentations submitted in each of the subspecialties presenting the latest scientific research.

GENERAL SCIENTIFIC SESSION IV

8:40 am-12:10 pm

See page 15 for session details.



LUNCHEON SEMINARS

12:20-1:50 pm

All Luncheon Seminars include a plated lunch served in the seminar room. The Luncheon Seminar fee is \$150 each (\$100 for residents, fellows, medical students, and advance practice providers).

W17: Service in the OR: Neurosurgeons in Military

Moderators: Gavin P. Dunn, Richard P. Menger

Faculty: Randy S. Bell, John Berry-Candelario, Joseph D. Ciacci, Robert A. Marsh, Matthew J. McPheeters, Fassil B. Mesfin, Dennis J. Rivet, Venita Simpson, Scott L. Zuckerman

Session Description: How can you serve in the military as a neurosurgeon and maintain your civilian practice? What opportunities exist? Why would you choose that pathway? This seminar offers a unique look into the lives of neurosurgeons who choose to serve in the military reserves. Attendees will explore how military service shapes medical and leadership skills, provides access to unique educational and research opportunities, and prepares neurosurgeons for high-stakes situations in both military and civilian settings.

TU/IN W18: Advances in Radiation Therapy for CNS Malignancies

Moderators: Veronica Chiang, Jaclyn White

Faculty: Clark Chen, Ajay Niranjan, Toral R. Patel, Jason P. Sheehan, Jonathan Sherman

Session Description: This seminar will explore cutting-edge developments in radiation oncology for brain and spinal cord tumors, with special emphasis on intraoperative radiation therapy (IORT). This seminar will highlight recent technological innovations, novel treatment paradigms, and emerging combination strategies that are reshaping the landscape of radiation therapy in neuro-oncology. Attendees will gain insights into state-of-the-art techniques such as IORT, proton beam therapy, and MRI-guided radiation. The seminar will cover the integration of these advanced modalities with conventional approaches, immunotherapy, and targeted agents. Through expert presentations and case-based discussions, attendees will update their knowledge on the latest advancements and their potential to improve outcomes for patients with CNS malignancies.

Moderator: Adam S. Arthur

Faculty: Robert H. Bonow, Jason Davies, Erik Hauck, Greg Murad, Shelly Timmons

Session Description: Attendees will learn about both surgical and non-surgical management of subdural hematoma. They will gain an understanding about the new research behind indications, risks, benefits and outcomes of MMA embolization.

PE/SP W20: Treating Cervical Deformity and Instability in the Growing Spine

Moderators: Jeffery Campbell, Katie P. Fehnel

Faculty: Douglas L. Brockmeyer, David Gonda, Jonathan E. Martin, , Mark Proctor, Tomoko Tanaka

Session Description: This course will provide a deeper understanding of treatment strategies for common and rare disorders of cervical spine deformity and instability in infants and children. This includes AO dislocation, atlantoaxial instability, subaxial instability, and severe kyphosis.

1:50-3:50 pm

Neurosurgical Medical Student Session: Prepared by Medical Students, for Medical Students



CONTINUING MEDICAL EDUCATION

2025 CONGRESS OF NEUROLOGICAL SURGEONS ANNUAL MEETING OBJECTIVES

The CNS enhances health and improves lives through innovative neurosurgical education, advancement of clinical practice & scientific exchange. The CNS Continuing Medical Education (CME) program provides participants with various learning formats to keep current in their field, improve skills, and enhance professional performance to provide the best possible care for their patients.

The CNS CME program is designed, planned, and implemented to evaluate a comprehensive collection of activities within the subspecialty of neurosurgery. The CNS plans to yield results that contribute to lifelong learning and demonstrate change and improvement in competence.

At the conclusion of the 2025 CNS Annual Meeting, participants will be able to:

- Alter their current practice patterns in accordance with the latest data.
- 2. Compare techniques based on findings discussed during case presentations.
- 3. Apply and/or perform new techniques based on best practices and current procedures.
- 4. Practice evidence-based, informed neurosurgical medicine.
- Interpret newly found outcomes as a result of the abstract scientific presentations.
- 6. Demonstrate change in competence.

EDUCATIONAL FORMAT DESCRIPTIONS

The CNS offers sessions in formats to enhance your educational experience. Each session is open to all who have paid the general medical registration fee with the exception of optional Symposia, Luncheon Seminars, and Dinner Seminars, which are available for an additional fee.

SYMPOSIA

Didactic and hands-on courses with expert neurosurgical educators demonstrating clinical techniques and applications via technology, models and simulation. Hands-on Symposia provide an opportunity to improve surgical skills by applying and demonstrating learned techniques. Symposia also provide an opportunity to review case-based complex issues and discuss potential solutions.

Symposia are offered Saturday, October 11 and Sunday, October 12.

GENERAL SCIENTIFIC SESSIONS, SECTION SESSIONS, GUIDELINES SESSIONS, LUNCHEON SEMINARS, INTERACTIVE SESSIONS, POSTER PRESENTATION SESSIONS, AND DINNER SEMINARS

Expert lecturers present research, scientific evidence, and associated outcomes and demonstrate clinical techniques and applications. The basics of translational development, clinical trials, guideline review, and updated changes and evaluation of clinical experience, followed by examples of successful application, are presented in various sessions. Basic skills and information that can be applied in daily practice and professional life are also presented.

- General Scientific Sessions, Section Sessions, Guidelines Sessions, Interactive Sessions, and Poster Presentation Sessions are offered Sunday, October 12 through Wednesday, October 15.
- Luncheon Seminars are offered Monday, October 13 through Wednesday, October 15.
- Dinner Seminars are offered on Saturday, October 11 and Monday, October 13.

INTERACTIVE SESSIONS

During the Interactive Sessions, the faculty presents cases to be examined, discussed, and debated by both the audience and the panel. Registered attendees will have the opportunity to submit their own cases prior to the meeting to be presented at these sessions. Don't miss these interactive sessions designed to encourage participation from everyone.

Interactive Sessions will take place on Monday, October 13 and Tuesday, October 14.

ORIGINAL SCIENCE PROGRAM

Scientific abstract presentations offer original science, groundbreaking research, and the best clinical and basic neurosurgical science in the CNS Original Science Program, and allows for audience questions and moderated discussions.

- Oral Presentations by subspecialty will be presented on Monday, October 13, Tuesday, October 14, and Wednesday, October 15.
- Interactive Poster Sessions will take place on Monday, October 13 from 4:30-6:00 pm and on Tuesday, October 14 from 5:00-6:30 pm.
- Late-breaking Abstracts will be presented on Monday, October 13 through Wednesday, October 15 as part of the Sunrise Science Sessions.

CONTINUING MEDICAL EDUCATION

ACCREDITATION



The Congress of Neurological Surgeons is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

CME CREDIT

The CNS designates this live activity for a maximum of 45.50 AMA PRA Category 1 Credits $^{\text{TM}}$. Physicians should only claim credit commensurate with the extent of their participation in the activity.

* A maximum of 23.00 AMA PRA Category 1 Credits™ may be earned for general sessions only.

ADDITIONAL CME CREDITS CAN BE EARNED BY ATTENDING THE FOLLOWING:

SYMPOSIA- (SATURDAY/SUNDAY)

Half Day Sessions

Attendees will receive a maximum of 3.75 AMA PRA Category 1 Credits™ for each eligible half-day morning symposia (A) and a maximum of 3.25 AMA PRA Category 1 Credits™ for each half-day afternoon symposia (B).

Full Day Sessions

Attendees will receive a maximum of 7.0 AMA PRA Category 1 CreditsTM for each full day symposia.

LUNCHEON SEMINARS

Attendees will receive a maximum of 4.5 AMA PRA Category 1 CreditsTM for all eligible luncheon seminars.

DINNER SEMINARS

Attendees will receive a maximum of 4 AMA PRA Category 1 CreditsTM for all eligible dinner seminars.

PREPARING POSTER PRESENTATION(S)

Physicians are eligible to claim up to 5 AMA PRA Category 1 CreditsTM per poster directly from the AMA. Applicant must be listed as the first author included in the published abstracts for a conference or activity that is certified for AMA PRA Category 1 CreditTM.

To claim the credit, physicians must submit to the AMA the completed Direct Credit Application or Resident Credit Application, along with the required documentation and appropriate processing fee. Please visit the AMA website for details at www.ama-assn.org.

Physicians may claim AMA PRA Category 2 CreditsTM for viewing scientific posters. Physicians should self-claim credit on their AMA PRA certificate application form. Please visit the AMA website for details at www.ama-assn.org.

CME CREDIT AND CERTIFICATE OF ATTENDANCE

CME credits can be claimed through the online system at www.cns.org. The CNS CME tracking system allows you to claim CME credit or Certificate of Attendance hours for the meeting. All attendees should only claim credit or hours of attendance commensurate with the extent of their participation in the activity.

Upon completion, your CME certificate will be immediately available to print from the convenience of your home or office.

DISCLOSURES

The Accreditation Council for Continuing Medical Education (ACCME) Standards for Integrity and Independence in Accredited Continuing Education requires that anyone in a position to control the content of the educational activity disclose all financial relationships with any ACCME-defined Ineligible Company*. Failure or refusal to disclose or the inability to satisfactorily resolve the identified conflict may result in the withdrawal of the invitation to participate in any of the CNS educational activities.

The ACCME defines an "Ineligible Company" as those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

FDA STATEMENT

Some drugs or medical devices demonstrated at the Annual Meeting have not been cleared by the FDA or have been cleared by the FDA for specific purposes only. The FDA has stated that it is the physician's responsibility to determine the FDA clearance status of each drug or medical device they wish to use in clinical practice. The CNS policy provides that "off-label" uses of a drug or medical device may be described at the Annual Meeting so long as the "off-label" use of the drug or medical device is also specifically disclosed.

Any drug or medical device is "off label" if the described use is not set forth on the product's approved label. It is also each speaker's responsibility to include the FDA clearance status of any device or drug requiring FDA approval discussed or described in their presentation or to describe the lack of FDA clearance for any "off-label" uses discussed. Speakers from the audience are also required, therefore, to indicate any relevant personal/professional relationships as they discuss a given topic.

GENERAL INFORMATION

MEETING LOCATION

The 2025 CNS Annual Meeting will be held at the Los Angeles Convention Center 1201 S. Figueroa Street Los Angeles, CA 90015

AMERICANS WITH DISABILITIES ACT

Wheelchairs, scooters, information booths, designated parking, TDD telephones, and other services are available for visitors with disabilities. For wheelchair or electric scooter rental, please contact Scoot-Around at 888-441-7575 or www. scootaround.com.

It is suggested that you make your reservation in advance of your arrival. Please let us know if, under the ADA, you require special accommodations or services in order to attend the CNS Annual Meeting. We want to ensure that no individual with a disability is excluded because of the absence of auxiliary aids and services. Your requirements should be sent directly to the Annual Meeting Registration and Housing Center at: cns@mcievents.com. Please provide any requests at least 30 days prior to the Annual Meeting to allow adequate time to accommodate your request.

COURSE AGENDAS AND FACULTY

Agendas are subject to change. As we strive to improve the quality of your educational experience, the CNS may substitute faculty with comparable expertise when necessary.

LACTATION ROOMS

The CNS and the Los Angeles Convention Center recognize public accomodations for all breastfeeding mothers. Two lactation rooms are available for nursing mothers located in the First Aid Office and West Hall Lobby.

DISCLAIMER

The material presented at the 2025 CNS Annual Meeting has been made available by the Congress of Neurological Surgeons for educational purposes only. The material is not intended to represent the only, nor necessarily the best method, procedure, or technique appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement, or opinion of the faculty which may be helpful to others who face similar situations. The material is not meant to replace independent judgement by a physician for any given issue.

Neither the content (whether written or oral) of any course, seminar, or other presentation in the program, nor the use of a specific product in conjunction therewith, nor the exhibition of any materials by any parties coincident with the program, should be construed as indicating endorsement or approval by the CNS, or by its committees or affiliates of the views presented; methods, procedures and/or techniques described or discussed; the products used; or the materials exhibited. The CNS disclaims any and all liability for injury or other damages resulting to any individual attending the Annual Meeting, and for all claims which may arise out of the use of the material, methods, procedures, and/or techniques demonstrated therein by such individuals, whether these claims shall be asserted by physicians or any other person. No reproductions of any kind, including audiotapes and videotape, may be made of the presentations at the 2025 CNS Annual Meeting. The CNS reserves all of its rights to such material, and commercial reproduction is specifically prohibited.



ITEMS INCLUDED IN REGISTRATION FEE:

- General Scientific Sessions, Sunday through Wednesday
- Scientific Program including Section Sessions, Sunrise Science/Late-breaking Abstract Sessions, Guidelines Sessions, Interactive Sessions, and Interactive Poster Presentation Sessions
- CNS Xperience Lounge
- Live Surgeries via Telemedicine
- Exhibit Hall, Monday through Wednesday
- Opening Reception on Sunday, October 12, 2025

REGISTRATION METHODS

ONLINE

cns.org/2025

PHONE

972-349-5539 (7:00 am-5:00 pm CST)

CREDIT CARD PAYMENTS

- U.S. dollars and drawn on a U.S. bank
- Visa
- Mastercard
- American Express

CHECK PAYMENTS

- Please note that checks cannot be processed over the phone or online. Please contact the CNS at 847-240-2500 if you are interested in paying for your CNS Annual Meeting Registration via check.
- Full payment must accompany your registration.
- U.S. dollars and drawn on a U.S. bank
- Any checks received from an overseas bank will be returned.
- Any checks returned for insufficient funds are subject to additional charges.

IMPORTANT DATES TO REMEMBER

SEPTEMBER 10 Advance Registration Discount Deadline

SEPTEMBER 10 Housing Deadline

Last Day to make new hotel reservations is September 10. Between September 10 and October 3 changes to existing reservations can be made through the Official CNS Housing provider, MCI. After October 3 changes to existing reservations need to be made directly with the hotel.

Email: cns@mcievents.com Phone: 972-349-5539

SEPTEMBER 17 Last day to cancel registration in order to receive a full refund, less a \$100 processing fee

OCTOBER 3 Any hotel changes or cancellations must be made directly with the hotel after October 3. Individual hotel cancellation policies can be found on your original housing confirmation.

REGISTRATION CHANGE/CANCELLATION INFORMATION

Annual Meeting registrations are only processed with a valid credit card. Once your registration is submitted, payment is processed immediately.

Full registration refunds, less a \$100 processing fee, will be granted if written requests for cancellation are received by 5:00 pm CT on September 17, 2025. Course and Seminar tickets will be refunded in full until September 17. No refunds of any kind will be given after this date, regardless of cause. Refunds will not be given for no-shows. In the event the CNS Annual Meeting is cancelled due to a Force Majeure event, such as natural disasters (fire, storms, floods); governmental or societal actions (war, invasion, civil unrest, labor strikes); or infrastructure failures (transportation, energy), registration fees will be refunded in full. Cancellation requests accepted via email at cns@jade.mcievents.com.



REGISTRATION INFORMATION

REGISTRATION RATES

REGISTRATION TYPE	Through September 10, 2025	After September 10, 2025
CNS MEMBER REGISTRANT		
Active (Domestic)	\$1,149	\$1,449
Active International	\$1,149	\$1,449
Associate (Non neurosurgeons with distinction in a neurosurgical-related discipline)	\$890	\$1,090
Active Duty Military	\$0	\$0
Armed Forces (Guard/Reserve/Retiree)	\$475	\$675
Resident/Fellow (Domestic)	\$399	\$599
International Resident/Fellow	\$299	\$499
Emeritus	\$750	\$1050
Medical Student (Enrolled in an accredited medical school in US or Canada)	\$0	\$200
Affiliate (Allied healthcare professionals involved in neurosurgical-related patient care, teaching, or research)	\$450	\$650
NON-MEMBER MEDICAL REGISTRANT		
Neurosurgeon Become a CNS member and save on Annual Meeting registration and enjoy all of the CNS member benefits!	\$2,390	\$2,390
Physician (non-neurosurgeon)	\$1,550	\$1,750
Non-physician (Clinical Researcher/Scientist) **	\$1,450	\$1,750
Neurosurgeon (Faculty)	\$1,550	\$1,850
Resident	\$549	\$749
Fellow	\$550	\$800
Medical Student	\$250	\$450
PA/Physician Extender/Nurse/Nurse Practitioner	\$600	\$850
Corporate Representative †	\$3,600	\$3,600
Non-Member Graduate Student/Post-doctoral Scholar	\$350	\$450
ANSPA Member ††	\$550	\$650
Developing Nation Rate (See page 7 for a complete list of nations)	\$150	\$150
Program Coordinator	\$0	\$0
Spouse/Guest/Child 13 & Over	\$200	\$300
Spouse/Guest/Child 13 & Over (Resident/Fellow)	\$200	\$200

^{**} Non-member/Non-physician category is limited to scientists, engineers, etc., involved in neurosurgical research and/or product development not affiliated with an exhibiting company.

New Membership Applications - For those interested in joining the CNS prior to the Annual Meeting to take advantage of discounted member registration rates, membership applications will be accepted and processed up through the Wednesday the week prior to the Annual Meeting: **October 8, 2025.** Any applications received after October 8, 2025, and through the dates of the meeting, will not be eligible for membership registration discounts that year.

[†] Corporate representatives attend for education only. They must not conduct sales activities in the meeting space, nor influence content in any way. Solicitation of medical attendees is strictly prohibited.

^{††} Includes one year of CNS Affiliate membership in 2025 for ANSPA Members only.

YOUR ESSENTIAL ORGANIZATION FOR ADVANCING EXPONENTIAL OUTCOMES

THERE'S NO BETTER TIME TO JOIN THE CNS!

A destination for the entire neurosurgery field, our community of highly engaged members energizes and advances the field—and inspires the next generation.

Get instant savings - select "Active Applicant Fee" when you register for the Annual Meeting and receive an immediate discount on your 2025 Annual Meeting registration!

See our full list of member benefits and apply at cns.org/membership.



CNS



BEYOND THE BLADE: REDEFINING THE ROLE OF THE TUMOR NEUROSURGEON

Join us October 10-11, 2025 at the Los Angeles Convention Center.

Explore how neurosurgeons are expanding their role beyond traditional surgery—advancing intraoperative visualization and detection, advocating for brain tumor patients through community outreach, and applying molecular therapies to treat disease beyond the reach of the scalpel.

Save up to \$200 when you add the Joint Tumor Section Symposium to your CNS Annual Meeting registration.

Don't forget to add a ticket for the Tumor Gala—celebrate with us Friday night!



cns.org/tumor

HOTEL & TRAVEL INFORMATION



AIRLINE DISCOUNTS

The CNS is pleased to offer discounts with the following airlines. Discounts are available for flight dates as noted below by airline to and from Los Angeles, CA area airports.

United Airlines:

www.united.com

Valid dates:

October 3-21, 2025

Enter code:

ZQHZ967664

Delta Airlines:

www.delta.com

Valid dates:

October 6-23, 2025

Enter code:

NY3NB

AIRPORT

The CNS Annual Meeting hotels and the Los Angeles Convention Center are located approximately 17 miles from Los Angeles International Airport, or 20 miles from Bob Hope Airport. For taxicab service from the airport, follow the signage outside of the baggage claim area to the taxi area. Uber and Lyft are both available in the Los Angeles area.



VISIT CNS.ORG/2025 TO MAKE YOUR RESERVATION TODAY! RESERVE YOUR ROOM BY SEPTEMBER 10, 2025.

HOTEL RESERVATIONS

- Please contact MCI, the official CNS Annual Meeting Registration and Housing Provider, to reserve your guest rooms.
- Hotels will not accept reservations from CNS meeting attendees directly.
- Be sure to complete the entire housing section on the reservation site.
- Hotel reservations are only available to registered CNS attendees. Rooms are subject to availability.

DEPOSIT

Our official CNS Annual Meeting Housing provider will not be taking a deposit at the time that your reservation is made. When booking your hotel, a credit card is required to secure your reservation. The hotel will charge a deposit on or after the cut-off date. The hotel will retain your deposit in the event of a cancellation within 72 hours of arrival or no-show. You will also be required to provide a credit card upon check-in.

HOTEL CHANGE/CANCELLATION POLICY

Any cancellations made within 72 hours of arrival will result in forfeiture of your one-night room and tax deposit. After October 3, 2025 changes and cancellations must be made with your assigned hotel. An early departure penalty of a one-night room and tax will be charged after the first night stay for early departure.

COMPLIMENTARY HOUSING FOR CNS RESIDENT MEMBERS AND INTERNATIONAL RESIDENT MEMBERS

Complimentary housing at the CNS Annual Meeting is available to a limited number of CNS Resident members and International Resident members on a first-come, first-served basis. To be considered for this program, members must register for the CNS Annual Meeting and select that they are interested in Resident Housing. Registering for the 2025 CNS Annual Meeting is the only way to apply for Resident Housing. You must be registered by July 14, 2025 to be considered. A CNS Staff member will reach out with further instructions.

HOTEL & TRAVEL INFORMATION

HEADQUARTERS HOTEL

JW MARRIOTT LOS ANGELES L.A. LIVE

900 W. Olympic Blvd. Los Angeles, CA 90015



Located just steps away from the excitement of L.A. LIVE with easy access to the city's best entertainment, sports, and cultural attractions, JW Marriott Los Angeles L.A. LIVE is at the threshold of endless possibilities. This downtown Los Angeles hotel is ideally suited for both business and leisure pursuits, within walking distance of Crytpo.com Arena, Peacock Theater, and the Los Angeles Convention Center.

- Distance to Conv. Center: 0.2 miles/5 min walk
- Single/Double Occupancy Rate per night: (Excludes state/local tax and fees): \$339
- **Room service -** Yes (6:30am-1:00 am)
- Pool Yes
- Spa Yes
- Fitness Center Complimentary
- WiFi Complimentary for Bonvoy members

THE RITZ-CARLTON, LOS ANGELES

900 W. Olympic Blvd. Los Angeles, CA 90015



Set within vibrant downtown surroundings, The Ritz-Carlton, Los Angeles effortlessly embodies the timeless appeal of a legendary city. Located at L.A. LIVE, home to world-class sports and extraordinary live entertainment, this luxury hotel in downtown Los Angeles, CA, features a captivating atmosphere shaped by dynamic surroundings.

- Distance to Conv. Center: 0.2 miles/5 min walk
- Single/Double Occupancy Rate per night: (Excludes state/local tax and fees): \$459
- Room service Yes (6:30am 1:00 am)
- Pool Yes
- Spa Yes
- Fitness Center Complimentary
- **WiFi** Complimentary for Bonvoy members

INTERCONTINENTAL LOS ANGELES DOWNTOWN

900 Wilshire Blvd. Los Angeles, CA 90017



2018 Travel + Leisure World's Best Hotel. Imagine the excitement of breathtaking visuals from the unique 70th floor sky lobby in the tallest building west of Chicago. A hotel that is 73 stories high, rising 1,100 feet above street level and a structure that on the outside redefines the Los Angeles skyline, but on the inside InterContinental Los Angeles Downtown presents the glamour and exhilaration that defines what it means to live the InterContinental life.

- Complimentary shuttle provided to/ from Los Angeles Convention Center
- Distance to Conv. Center: 0.7 miles/17 min walk
- Single/Double Occupancy Rate per night: (Excludes state/local tax and fees): \$319
- **Room service -** Yes (6:30 am-10:30 pm)
- Pool Yes
- Spa No
- Fitness Center Complimentary
- WiFi Complimentary in-room service

SHERATON GRAND LOS ANGELES

711 S. Hope St. Los Angeles, CA 90017



Sheraton Grand Los Angeles is situated in the heart of the Los Angeles Financial District with effortless access to Crypto. com Arena, Dodger Stadium, Koreatown, the Fashion District, and Little Tokyo. After a busy day in DTLA, unwind in a beautiful dog-friendly Los Angeles hotel room or suite with views of downtown, cutting-edge technology, and a Sheraton Signature Sleep Experience bed.

- Complimentary shuttle provided to/ from Los Angeles Convention Center
- Distance to Conv. Center: 0.8 miles/18 min walk
- Single/Double Occupancy Rate per night: (Excludes state/local tax and fees): \$309
- Room service Yes (6:30am 1:00 am)
- Pool Yes
- Spa No
- Fitness Center Complimentary
- WiFi Complimentary in-room service

HOTEL & TRAVEL INFORMATION

HOTEL FIGUEROA

939 S. Figueroa St. Los Angeles, CA 90015



The Hotel Figueroa is a one-of-a-kind sanctuary steeped in history, nestled in the heart of downtown Los Angeles. The legendary hotel is a distinct gem home to posh dining, sophisticated rooms, genuine service, unique event space, and buzzed-about activities only steps away.

- Distance to Conv. Center: 0.3 miles/7 min walk
- Single/Double Occupancy Rate per night: (Excludes state/local tax and fees): \$309
- Room Service No
- Pool Yes
- Spa No
- **Fitness Center -** Complimentary
- **WiFi** Complimentary in-room service

AC HOTEL DOWNTOWN LOS ANGELES

1260 S. Figueroa St. Los Angeles, CA 90015



AC Hotel Downtown Los Angeles is a sanctuary providing discerning travelers with the freedom and versatility they crave amid the dynamic streets of Downtown LA.

- Distance to Conv. Center: 0.2 miles/5 min walk
- Single/Double Occupancy Rate per night (Excludes state/local tax and fees): \$325
- Room Service No
- Pool Yes

- Spa No
- Fitness Center Complimentary
- **WiFi** Complimentary in-room service

MOXY DOWNTOWN LOS ANGELES

1260 S. Figueroa St. Los Angeles, CA 90015

Reflecting the bold, adventurous spirit of California, Moxy Downtown Los Angeles is a haven for modern nomads in LA's creative epicenter. The hotel channels the neighborhood's forward-thinking energy and multicultural heritage, providing fun-hunting travelers with experiences around every corner: 13 restaurants, bars, and clubs; four outdoor terraces and a pool deck overlooking the LA skyline; and flexible, tech-centric spaces for coworking, meeting, and large social events.

- Distance to Conv. Center: 0.2 miles/5 min walk
- Single/Double Occupancy Rate per night (Excludes state/local tax and fees): \$319
- Room Service No
- Pool Yes
- Spa No
- Fitness Center Complimentary
- WiFi Complimentary

COURTYARD LOS ANGELES L.A. LIVE

901 W. Olympic Blvd. Los Angeles, CA 90015



Immerse yourself in an exceptional LA locale at Courtyard Los Angeles L.A. LIVE. All the energy and excitement of the L.A. LIVE campus waits for you next door, with the Crypto.com Arena, Peacock Theater and 7th Street/Metro

Center Station all a short walk away. Take in views of downtown from the hotel's heated rooftop pool and outdoor terrace, while access to the 24-hour business and fitness centers help keep you on track.

- Distance to Conv. Center: 0.2 miles/5 min walk
- Single/Double Occupancy Rate per night (Excludes state/local tax and fees): \$309
- Room Service No
- Pool Yes
- Spa No
- Fitness Center Complimentary
- **WiFi** Complimentary in-room service

RESIDENCE INN LOS ANGELES L.A. LIVE

901 W. Olympic Blvd. Los Angeles, CA 90015

Experience a newly renovated space with modern conveniences in Downtown Los Angeles at Residence Inn Los Angeles LA LIVE. This hotel places you in the heart of the downtown entertainment district, near the renowned Los Angeles Convention Center and next to the L.A. LIVE Campus. See a game at the nearby Crypto.com Arena or go to a concert at the Peacock Theater, home to the Emmys and the American Music Awards. Discover extended-stay, apartment-style living with valet parking and free Wi-Fi. Start each day with a complimentary breakfast and end with bistro-style cuisine at the hotel restaurant, Table 901. Soak up the California sunshine as you unwind by our third-floor rooftop pool.

- Distance to Conv. Center: 0.2 miles/5 min walk
- Single/Double Occupancy Rate per night (Excludes state/local tax and fees): \$309
- Room Service No
- Pool Yes
- Spa No
- Fitness Center Complimentary
- WiFi Complimentary in-room service

The following exhibitors have confirmed their participation as of May 1, 2025

- ACE Medical Company
- Ad-Tech Medical Instrument Corp.
- Advanced Endoscopy Devices
- Aesculap, Inc.
- American Association of Neurological Surgeons
- American Surgical Company
- Apex Medical, Inc.
- Arthrex, Inc.
- AstraZeneca Pharmaceuticals
- Avatar Medical
- Barricaid
- Baylor Scott & White Health
- BFW, Inc.
- Biocomposites Inc.
- Bioventus
- Black Forest Medical Group
- Boss Instruments Ltd.
- Brain Aneurysm Foundation
- Brainlab
- CarboFix Spine
- Carlsmed, Inc.
- Carthera
- Cerapedics
- Clarus Medical, LLC
- ClearPoint Neuro, Inc.
- CMF Medicon Surgical Inc.
- Designs for Vision, Inc.
- DIXI Medical USA Meeting Suite
- elliquence, LLC.
- EMD
- Enovis
- evonos GmbH & Co. KG
- Fehling Surgical Instruments, Inc.
- FujiFilm Healthcare of Americas
- GammaTile
- Gauthier Biomedical Inc.
- GE HealthCare

- Globus Medical
- Highridge Medical
- icotec Medical, Inc.
- Integra LifeSciences
- IRRAS
- Isto Biologics
- Johnson & Johnson MedTech
- joimax
- iSchemaview, Inc.
- JTS Surgical
- Karl Storz Endoscopy America, Inc.
- Kirwan Surgical Products
- KLS Martin
- Koh Young America, Inc.
- Leica Microsystems
- Life Instrument Corporation
- Longeviti Neuro Solutions
- MBS Locums LLC
- Medexus Pharma
- Medical Education & Research Institute
- Medtronic
- MEGIN
- MiMedx Group, Inc.
- Mitaka USA, Inc.
- Mizuho America, Inc.
- Moeller Medical Devices USA
- Monteris Medical
- MUTOH
- Nadia International, Inc.
- Natus
- Nexstim
- Novarad
- NSK America Corp.
- Nurami Medical
- Olympus America Inc.
- Omniscient Neurotechnology
- Orthofix
- Penumbra, Inc.

- Peter Lazic U.S. Inc.
- Phasor Health LLC
- PMT Corporation
- Premia Spine, Inc.
- Prism Clinical Imaging, Inc.
- Q-Optics
- Raumedic
- RebrAln
- Ronin Surgical Corp.
- Rose Micro Solutions
- RosmanSearch, Inc.
- Scanlan International, Inc.
- Servier Pharmaceuticals
- Shukla Medical
- SI-BONE
- Siemens Healthineers
- Solvemed
- Sophysa
- Spine Wave
- Stryker
- Surgeons Capital Management
- SurgiTel
- Surglasses, LLC
- Sutter Medical Technologies USA
- TeDan Surgical Innovations, Inc.
- Terumo Neuro
- Thieme Publishers
- Thompson Surgical Instruments, Inc
- Tobra Medical Inc
- True Digital Surgery
- Vivistim by MicroTransponder
- VPIX Medical
- Xtant Medical
- ZAP Surgical Systems, Inc.
- ZEISS
- Zimmer Biomet

SAVE THE DATE!

CNS 26 ANNUAL MEETING WASHINGTON, D.C. | OCTOBER 31-NOVEMBER 4

