



American
Association of
Neurological
Surgeons

Jointly Provided by the AANS

2022

The Winter Clinics

FOR CRANIAL & SPINAL SURGERY

Sunday, February 27 - Thursday, March 3, 2022

Viewline Snowmass, Snowmass Village, Colorado

Be part of the nation's most exciting and collaborative meeting for cranial, neurological and orthopaedic spine surgeons, located at the beautiful Viewline Snowmass in Snowmass Village, Colorado.

The Winter Clinics FOR CRANIAL & SPINAL SURGERY

Sunday, February 27, 2022

7:00 - 9:30am
Emerging Treatments & General Spine
Moderator: William Tobler, MD

Objectives

Intended audience: neurosurgeons, orthopaedic surgeons, neurosurgical residents, fellows, nurse practitioners & physician assistants

Methods of instruction: didactic lectures, case presentations/discussions, abstract presentations, panel discussions and formal discussion periods

Upon completion of this educational activity, participants should be able to:

- Discuss emerging technologies as well as treatment paradigms for various spinal diseases and disorders, including peripheral nerve disorders.
- Identify various complications in spine surgery, how to avoid or treat spine complications and how best to communicate about them.
- Identify management, techniques and post-operative treatment in deformity spine surgery.
- Explain and review new techniques and controversies as demonstrated in various cranial case studies, and apply that information to future clinical decision-making processes.
- Review and discuss general spine topics as it relates to the business of spine surgery and related areas such as physical medicine & rehabilitation, physical therapy, and wellness service lines.
- Review and discuss advancements in neurovascular care.
- Discuss and review the use of neuromodulation for pain and movement disorders, patient evaluation and update on surgical techniques.
- Identify the contemporary management, surgical techniques and post-operative treatment of brain tumor management.
- Apply processes involved in clinical decision making for cases that demonstrate controversies, the application of new and emerging technology, and complication management.
- The Advanced Practice Provider will recognize basic and advanced neurosurgical principles as well as gain an understanding of current best neurosurgical practices through case reviews and recent clinical study updates.

Accreditation Statement & Designation Statements: This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the AANS and the Mayfield Clinic. The AANS is accredited by the ACCME to provide continuing medical education for physicians.

The AANS designates this live activity for a maximum of 25 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Disclosure Statement: Before the program, anyone in control of the educational content of this activity will disclose the existence of any financial interest and/or the relationship they have with the manufacturer(s) of any commercial product(s) to be discussed during their presentation. Disclosures will be included in the final program.

MR of Acute Spine Trauma
Steve Pomeranz, MD

10 Year Follow-Up of a Cohort of 50 Lumbar Fusion Patients
William Tobler, MD

Awake Spine Surgery in the ASC: How Regional Anesthesia has Enhanced Recovery
Ernie Braxton, MD

The Evolution of Bone Grafting Biologics for Spinal Fusion
James Burke, MD, PhD

Economics of Medicine: Understanding Investments in Healthcare Innovation
Chris Kager, MD, MBA

Fighting Back: Predatory Publishing, Citation Contamination and the Gray Zone
Mary Kemper

4:00 - 6:30pm Spine Surgery Complications
Moderator: Zachary Tempel, MD

Frailty in the Elderly and Type II Odontoid Fracture Outcomes
Lucas Carlstrom, MD, PhD

Optimizing Outcomes in Healing: A Plastic Surgeon's Perspective
William Tobler, Jr., MD

Role of DTI & MRI Neurogram Imaging in Spine & Peripheral Nerve Surgery
Line Jacques, MD, MSc

Case Series: Nerve Transfers for C5 Palsy
Eric Zager, MD

Long Term Outcome of Multi-Level (3 or Greater) Minimally Invasive Laminectomy for Lumbar Stenosis
Mick Perez-Cruet, MD, MS

Ten Year Follow Up of Cervical Total Disc Replacement: Swiss Spine Society Study Patients
Ed Frank, MD

6:30-8:00pm Welcome Reception

Monday, February 28, 2022

7:00 - 9:30am Complex Spine Surgery Moderator: Robert Bohinski, MD, PhD

Summary and Update on Hot Topics in Deformity Surgery
Robert Bohinski, MD, PhD

Expectations-Satisfaction in Deformity Surgery
Richard Fessler, MD, PhD

Junctional Strategies for PJK Prevention
Tyler Koski, MD

Distributed Loading Technique: A "soft landing" to Avoid PJK
Zachary Tempel, MD

Diagnosis and Management of Ankylosing Spondylitis
Doug Orr, MD

A Simple, Novel Way to Revise Loose Screws
Neel Anand, MD

4:00 - 6:30pm Spine Surgery Controversies Moderator: Michael Kachmann, MD

Fusions for Chronic Discogenic or Axial Low Back Pain without Instability: Reasonable or Not?
Pierce Nunley, MD

Long Construct Distal Failure
Michael Kachmann, MD

Study: Normal Spinal Canal Diameter & Population Trends
Sergey Neckrysh, MD & Constantin Schizas, MD

Spinal Biologics in the Age of Insurance Denials
Andrew Kokkino, MD

When to Cross the CT Junction
Jason Savage, MD

Every Clinician's Six "Customers"
Peter Kalina, MD

Tuesday, March 1, 2022

7:00 - 9:30am General Spine Moderator: Bryan Krueger, MD

Ulnar Neuropathy and the Anconeus Epitrochlearis Muscle
Manish Sharma, MBBS

Diabetic Neuropathy Indication for SCS
Marc Orlando, MD

Vertebrogenic Low Back Pain
George Bovis, MD & Thomas Gleason, MD

Evidence for Cellular Bone Matrix Allograft in Spinal Fusion
Bryan Krueger, MD

Motorsports Safety Development: Learning from Tragedy
Dan Galyon, MD

Spinal Cord Injury: Pulmonary Complications & Prevention
William Knight, IV, MD

7:00 - 9:30am Concurrent: Advanced Practice Provider Moderator: Jody Miniard, DNP, ACNP-BC

APP Practice Model Updates: Improving Patient Access
Jody Miniard, DNP, ACNP-BC

Tips to Correctly Identify Pain
Claudio Feler, MD

Conservative Spine Treatment: What's the Evidence?
Zachary Plummer, MD

Grading Systems in Spine Surgery
Joseph Herbert, MD

Use of 3D Models in Complex Spine & Cranial Surgery
Katherine Trelstad-Andrist, APRN, CNP

3:30 - 6:00pm Neurovascular Advancements Moderator: Rabih Tawk, MD

Moyamoya Disease
Rabih Tawk, MD

Acute Ischemic Stroke Intervention: 2022 Updates
Ricardo Hanel, MD

RCVS/PRESS & Inflammatory Causes of Stroke
Jonathan Hodes, MD

Coagulopathy, Chemoprophylaxis, & Systemic Thrombus Management in the ICH Patient
Jonathan Ratcliff, MD

Cerebrovascular Occlusive Disease & Bypass
Norberto Andaluz, MD

Cognitive Changes after an SAH
Gavin Britz, MD

6:30-9:30pm 30th Anniversary Celebration at Elk Camp

Wednesday, March 2, 2022

7:00 - 9:30am General Cranial Surgery Moderator: Troy Payner, MD

Case Review: Clinical Approaches to Concussion Management
Micky Collins, PhD

Penetrating Brain Injury Update
Chris Carroll, MD

Future of Trauma Neurosurgery
Uzma Samadani, MD, PhD

How to Get Chiari Surgery Right
John Oró, MD

Laser Interstitial Thermal Therapy in Neuro-oncology
Alireza Mohammadi, MD

The Emerging Role of High & Low Frequency Focused Ultrasound
Glen Stevens, DO

Ergonomic Evaluation for Endoscopic Skull Base Surgeons
Emily Karp, MD

4:00 – 6:30pm Functional Neurosurgery Moderator: George Mandybur, MD

The History of Trigeminal Neuralgia
Hamad Farhat, MD

Dying Art of PSR
Chad Morgan, MD

Refining Patient Selection for SCS: Measuring Gait & Balance
George Mandybur, MD

Elucidating Mechanism of Action of DBS in Drug Addiction
Kendall Lee, MD, PhD

MRI Guided Focused Ultrasound (MRIg FUS)
Sepehr Sani, MD

Curved Trajectories & the Future of Stereotaxis
Joseph Neimat, MD

DBS for Movement Disorders & Psychiatric Indications
Mark Liker, MD

4:00 - 6:30pm Concurrent: Advanced Practice Provider Moderator: Christina Collins, DNP, ARNP, ACNP-C

Chiari Treatment & CSF Leak Review - *Shawn Vuong, MD*

Neurology Symptom Management: Seizures & Headaches
Christina Vest, DNP

Stroke Update: Current Guidelines on Diagnosis & Treatments
Jonathan Scoville, MD

Treatment of Non-Aneurysmal SAH - *Stacia Grove, NP*

Pituitary Adenoma Incidence, Mgmt Trends & Long-term Outcomes
Chris Graffeo, MD, MS

Skull Base Lesions & the APP - *Laura McLaughlin, DNP-ACNP*

Thursday, March 3, 2022

7:00 - 9:30am Brain Tumor Management Moderator: Vincent DiNapoli, MD, PhD

Gene Therapy for Neurological Disorders
John Heiss, MD

Case Review
Vincent DiNapoli, MD, PhD

Management of Petroclival Meningiomas
Sebastien Froelich, MD

Comparison of Outcomes Following Primary & Repeat Resection of Craniopharyngioma
Philip Theodosopoulos, MD

Posterior Fossa Epidermoids
Michael Link, MD

Endoscopic Transphenoidal: Lessons Learned from 10 Years Experience with Progressive Complexity
Bharat Guthikonda, MD

Clival Chordomas: A Review and Update on Management
Amjad Anaizi, MD

4:00 - 6:30pm CPC – “Stump the Chump” Moderator: William Knight, IV, MD

Residents:

Oluwaseun Akinduro, MD
Lucas Carlstrom, MD, PhD
Michael Robinson, MD
Jonathan Scoville, MD
Pranay Soni, MD

Faculty:

Vincent DiNapoli, MD, PhD
Michael Link, MD
Chad Morgan, MD
Troy Payner, MD
Rabih Tawk, MD



Lodging and Location

Snowmass Village is a beautiful area, perfect for wintertime fun. Nestled in the Colorado Rockies, Snowmass provides a serene backdrop for this educational program.

Viewline Snowmass, part of the Marriott Autograph Collection (formerly Westin Snowmass) is a full-service, ski-in, ski-out hotel featuring stunning interior and exterior spaces and breath-taking mountain views. Guest rooms blend outdoor ruggedness with modern luxury.



Wildwood Snowmass offers a completely different experience with a fun and high energy vibe. Guests will enjoy fully renovated rooms designed for relaxing, socializing, and making new friends in an atmosphere that's funky and fun.

When you register for the conference, remember to make lodging reservations as well. The Viewline Snowmass and Wildwood Snowmass hotels are holding a limited number of rooms at a discounted price until **January 26, 2022**.

To make reservations, call the Viewline at (800) 525-9402 or the Wildwood at (970) 923-8400. Reservations will be accepted based on availability.

Registration deadline: February 11, 2022

For more detailed information and to register, [visit winterclinics.com](http://winterclinics.com)



Tuition

Full Program	Feb. 27-Mar. 3	\$1300
Spinal Program Only	Feb. 27-Mar. 1	\$1100
Cranial Program Only	Mar. 1-3	\$1100
Residents/Fellows Nurse Practitioners Physician Assistants	Feb. 27-Mar. 3	\$600



Covid Policy

Your health and safety is a priority. We will follow any masking requirements from state and local authorities at the time of the meeting.

Additionally, we require all participants do one of the following:

- Provide proof of full vaccination.
- Obtain a negative PCR test within three days of arrival to the meeting.
- Mask indoors in the Conference Center at all times.

Exhibitors * as of December 1, 2021

Cerapedics, Inc. **Natus**
DePuy Synthes **Nexus Spine**
DuraStat **OssDsign USA, Inc.**
Integra **SI-Bone**
KLS Martin Group **Spine Wave**
Kuros Biosciences **Spineology**



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Mayfield Clinic
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Viewline Snowmass, Snowmass Village, Colorado

Faculty

Allegheny Brain & Spine Surgeons
James Burke, MD, PhD

Amita Health
George Bovis, MD

**Ascension St. Vincent's Riverside
Spine & Brain Institute**
Laura McLaughlin, DNP-ACNP

Barrow Neurological Institute
Christopher Graffeo, MD

Cedars Sinai Medical Center
Neel Anand, MD

Cleveland Clinic
Alireza Mohammadi, MD
R. Douglas Orr, MD
Jason Savage, MD
Parnay Soni, MD
Glen Stevens, DO, PhD, FAAN

Clinique Cecil, Switzerland
Constantin Schizas, MD

Colorado Chiari Institute
John Oro, MD

Emory University
Jon Ratcliff, MD

Georgetown University
Amjad Anaizi, MD

Glia Media
Mary Kemper

Goodman Campbell Brain and Spine
Troy Payner, MD

**Group Health TriHealth Physician
Partners**
William Tobler, Jr., MD

**Houston Methodist Neurological
Institute**
Gavin Britz, MD

Illinois Bone & Joint Institute
Thomas Gleason, MD

Inova Neurosurgery
Stacia Grove, NP

Louisiana State University
Bharat Guthikonda, MD

Lyerly Neurosurgery
Ricardo Hanel, MD, PhD

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Michael Link, MD
Rabih Tawk, MD
Katherine Trelstad-Andrist, APRN, CNP, MSN

Mayo Clinic Health System
Manish Sharma, MBBS

Mercy Health Jewish Hospital
Christina Vest, DNP

Michigan Head & Spine Institute
Mick Perez-Cruet, MD, MS

National Institutes of Health
John Heiss, MD

Northwestern University
Tyler Koski, MD

**Oregon Health & Science University/Centre
de la Douleur**
Edmund Frank, MD

Oregon Neurosurgery
Andrew Kokkino, MD

Penn Medicine / Lancaster General Health
Chris Kager, MD, MBA

ProScan Imaging
Stephen Pomeranz, MD

Rush University
Richard Fessler, MD, PhD
Sepehr Sani, MD

Sanford Neurosurgery and Spine Clinic
Shawn Vuong, MD

Spine Institute of Louisiana
Pierce Nunley, MD

**Springfield Neurological and Spine
Institute**
Chad Morgan, MD

Uniformed Services University
Christopher Carroll, MD

Université de Paris
Sébastien Froelich, MD

University of California, San Francisco
Line Jacques, MD, MSc
Philip Theodosopoulos, MD

University of Cincinnati
Norberto Andaluz, MD
William Knight, IV, MD
Zachary Plummer, MD
Michael Robinson, MD, PhD

University of Illinois Chicago
Hamad Farhat, MD
Sergey Neckrysh, MD

University of Louisville
Joseph Neimat, MD

University of Minnesota
Uzma Samadani, MD, PhD

University of Missouri
Joseph Herbert, MD

University of Pennsylvania
Eric Zager, MD

University of Pittsburgh
Micky Collins, PhD

University of Southern California
Mark Liker, MD

University of Utah
Jonathan Scoville, MD

**Vail-Summit Orthopaedics &
Neurosurgery**
Ernest Braxton, MD

Claudio Feler, MD

Dan Galyon, MD