



7th Annual Spine Trauma Summit
A Focus on Current Problems: Spinal Cord Injury
and Less Invasive Surgical Strategies

December 17-18, 2021

Syllabus

ESTEEMED FACULTY

Bizhan Aarabi, M.D.

Professor of Neurosurgery
Director of Neurotrauma
University of Maryland Department of Surgery
University of Maryland Medical Center
Baltimore, Maryland

Jens R. Chapman, M.D.

Course Co-Chair
Complex Spine Surgeon
Swedish Neuroscience Institute
Seattle, Washington

Andrew T. Dailey, M.D.

Course Co-Chair
Professor
Department of Neurosurgery
University of Utah
Salt Lake City, Utah

Michael Fehlings, M.D., Ph.D., FRCSC, FACS

(virtual)
Professor of Neurosurgery
Vice-Chair Research, Department of Neurosurgery
Co-Director, Spine Program
McLaughlin Scholar in Molecular Medicine
University of Toronto
Toronto, Ontario, Canada

James Harrop, M.D. *(virtual)*

Chief, Division of Spine & Peripheral
Nerve Surgery
Jefferson University Hospitals
Philadelphia, Pennsylvania

John Hurlbert, M.D., Ph.D.

Co-Medical Director, Spine Program
University of Arizona
Tucson, Arizona

David Okonkwo, M.D., Ph.D. *(virtual)*

Professor, Neurological Surgery
Director, Neurotrauma Clinical Trials Center
University of Pittsburgh
Pittsburgh, Pennsylvania

Rod J. Oskouian, Jr., M.D.

Course Co-Chair
Chief of Spine
Director, Spine Fellowship Program
Swedish Neuroscience Institute
Seattle, Washington

Wyatt Ramey, M.D.

Neurosurgeon
Houston Methodist Hospital
Houston, Texas

Rick C. Sasso M.D. *(virtual)*

Course Co-Chair
Professor, Chief of Spine Surgery
Department of Orthopaedic Surgery
Indiana University School of Medicine
Indiana Spine Group
Indianapolis, Indiana

Klaus John Schnake, MD, Ph.D. *(virtual)*

Chief, Interdisciplinary Center for Spinal & Scoliosis Surgery
Chair, AO Spine Knowledge Forum Trauma
Chair, Spine Section of the German Orthopaedics and Trauma Society (DGOU)
Malteser Waldkrankenhaus St. Marien
Erlangen, Bavaria, Germany

AGENDA

FRIDAY, DECEMBER 17, 2021

- 6pm **Registration and Pizza**
- 6:40pm **Welcome & Course Overview**
- 6:45pm **Case Reviews & Discussions**
Moderators: Jens R. Chapman, M.D., Andrew T. Dailey, M.D., and Rick C. Sasso, M.D. (virtual)
Presenters: Jared Cooke, D.O., Yevgeniy Freyvert, M.D., Periklis Godolias, M.D., Ph.D., Jerry Robinson, M.D., Zachary Tataryn, M.D.
Objectives:
- Illustrate the physiologic effects of trauma on the spine
 - Identify surgical considerations in trauma situations
 - Outline merits of various treatment options
- 8pm **Adjourn**

SATURDAY, DECEMBER 18, 2021

- 7:30am **Registration, Breakfast & Exhibits**
- 7:55am **Welcome, Introductions & Course Overview**
Jens R. Chapman, M.D. & Rod J. Oskouian, Jr., M.D.

Session 1 Spinal Cord Injury (SCI)

- 8am **General Trends in Spine Trauma**
John Hurlbert, M.D., Ph.D.
Objectives:
- Understand emerging demographics of spine trauma
 - Outline the principals of spine trauma management
 - Identify unfolding challenges of health care management in spine trauma
- 8:20am **Emerging Trends in Spinal Cord Injury Care**
Michael Fehlings, M.D., Ph.D. (virtual)
Objectives:
- Demonstrate working knowledge of the critical features of the pathophysiology of acute spinal cord injury
 - Explain the role and timing of surgical intervention for acute spinal cord injury
 - Outline current and emerging translational research for spinal cord injury

- 8:40am **Live Broadcast Demonstration from BioSkills Lab No. 1**
Posterior C2-L1 Fixation Primary Alternative
Moderator: Rick C. Sasso, M.D. (virtual)
Jens R. Chapman, M.D.
Objectives:
- Identify limitations and characteristics of traditional freehand pedicle fixation
 - Explore options of thoracic translaminar fixation
 - Outline principles of safe posterior segmental instrumentation

- 9:10am Suggested Surgical Techniques Algorithm for Complete Spinal Cord Decompression Following Traumatic Spinal Cord Injury: Contribution of Imaging Biomarkers**
Bizhan Aarabi M.D.
Objectives:
- Define surgical decompression for the spinal cord
 - Outline how to define whether one's surgical technique has relived pressure of discoligamentous complex on a swollen spinal cord
 - Describe the preoperative algorithm for complete surgical decompression
- 9:30am Revisiting Classifications of Spinal Cord Injury**
Wyatt Ramey, M.D.
Objectives:
- Outline the importance of SCI classifications
 - Define the past and current systems for SCI classifications
 - Describe the future of SCI classification
- 9:50am Timing of Spinal Cord Injury (SCI) Surgery**
James Harrop, M.D. (virtual)
Objectives:
- Identify epidemiology of traumatic SCI and how it is changing
 - Interpret pathophysiology of traumatic SCI and pathophysiology of improved neurologic recovery with early decompression
 - Recognize the potential barriers to early surgery and possible mechanism to remove these barriers
- 10:10am Break & Exhibits (not for CME credit)**
- 10:25am Live Broadcast Demonstration from BioSkills Lab No. 2**
Alternative Simultaneous Prone Position TL Corpectomy
Moderator: Andrew T. Dailey, M.D.
John Hurlbert, M.D., Ph.D.
Objectives:

 - Describe indications and essentials of thoracolumbar corpectomies
 - Outline thoracolumbar approach options
 - Assess critical elements of anterior column reconstruction
- 10:55am Central Cord Syndromes**
David Okonkwo, M.D., Ph.D. (virtual)
Objectives:
- Outline the epidemiology, clinical presentation, and underlying
 - Describe modern medical and surgical management principles for central cord syndrome
- 11:15am Panel Discussion: Spinal Cord Injury and Spine Trauma Needs & Opportunities**
Moderator: Jens Chapman, M.D. & Rod Oskouian, M.D.
Panelists: All Faculty
Objectives:
- Identify what to do with acute spinal cord injuries
 - Highlight ideal treatment principles
 - Classify SCI new systems different approach to better understand the pathology

Session 2 **Geriatric Injuries**

- 11:25am** **Towards A New Understanding of Osteoporotic Fractures**
Klaus Schnake, M.D., Ph.D. (virtual)
Objectives:
- Recognize the pathophysiology and clinical impact of osteoporotic vertebral body fracture
 - Describe osteoporotic fracture classification and treatment algorithm
 - Describe different surgical stabilization techniques
- 11:45am** **Break, Exhibits & Pick Up Lunch** (*not for CME credit*)

- 12pm** **Live Broadcast Demonstration from BioSkills Lab No. 3** (*working lunch*)
Posterior Cranio-Cervical with Vertebral Artery & Nerve Root Dissection
Moderator: Jens R. Chapman, M.D.
Andrew T. Dailey, M.D.
Objectives:
- Highlight critical anatomy insights
 - Provide tips on vertebral artery management during surgery
 - Outline tips & tricks for combining stable fixation with sound fusion practices

- 12:30pm** **Novel Thoracolumbar Fixation Strategies**
Rick C. Sasso, M.D. (virtual)
Objectives:
- Identify problematic anatomy deviations that imperil safe pedicle screw instrumentation
 - Explain translaminar screw placement principles
 - Explore other posterior thoracolumbar segmental fixation strategies
- 12:50pm** **Odontoid Fractures Revisited: The Surgery Treatment of Choice**
Andrew T. Dailey, M.D.
Objectives:
- Describe anterior vs. posterior limitations of odontoid screw fixation
 - Outline preferred posterior fixation strategies

- 1:10pm** **Live Broadcast Demonstration from BioSkills Lab No. 4**
Anterior Upper C1-C2 Odontoid Screw
Moderator: Rick Sasso, M.D. (virtual)
Bizhan Aarabi, M.D.
Objectives:
- Identify tips and tricks for safe odontoid placement, compression, and screw fixation techniques

Session 3: **Multiply Injured Patients**

- 1:40pm** **Prioritizing Care in Multiply Injured Patients with Spine Fractures**
Jens R. Chapman, M.D.
Objectives:
- Outline prioritization of trauma care
 - Describe the concept of damage control surgery vs. open principles

2pm **Break & Exhibits** (*not for CME credit*)

2:10pm **Vertebral Artery Injuries**

Andrew T. Dailey, M.D.

Objectives:

- Review current state of diagnostic approaches
- Discuss current classifications
- Illustrate treatment approaches relative to injury severity

2:30pm

Live Broadcast Demonstration from BioSkills Lab No. 5

Prone Lateral Corpectomy

Moderator: Jens R. Chapman, M.D.

Rod J. Oskouian Jr., M.D.

Objectives:

- Outline the pros & cons of simultaneous prone position in corpectomy surgery
- Describe logistical details for this approach
- Outline timing of c-spine surgery with acute spine injuries

3pm

Adjourn

Acknowledgements

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Educational Grant

Alphatec Spine
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Exhibit Support

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DePuy Synthes
Globus Medical
Medtronic
Stryker

Course Planning Committee

Jens R. Chapman, M.D.

Course Co-Chair

Swedish Neuroscience Institute
Seattle, Washington

Andrew Dailey, M.D.

Course Co-Chair

University of Utah
Salt Lake City, Utah

Rod Oskouian, Jr., M.D.

Course Co-Chair

Swedish Neuroscience Institute
Seattle, Washington

Rick Sasso, M.D.

Course Co-Chair

Indiana Spine Group
Indianapolis, Indiana

Periklis Godolias, M.D.

Swedish Neuroscience Institute
Seattle, Washington

Amir Abdul-Jabbar, M.D.

Swedish Neuroscience Institute
Seattle, Washington

Cory Kepler

Seattle Science Foundation
Seattle, Washington

Linda Sahlin, B.A.

Seattle Science Foundation
Seattle, Washington

Course Evaluation

Please take a moment to complete our online evaluation, which will be emailed to you. Your feedback helps to ensure the effectiveness of this CME activity, as well as improve future educational activities. All responses are considered anonymous. <https://www.surveymonkey.com/r/SpineTrauma2021>

If you do not receive the survey via email, please call (206) 732-6500 or email cme@seattle-science-foundation.org.

Accreditation

Seattle Science Foundation is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

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Identifying and Mitigating Conflicts of Interest

Purpose: The information provided addresses several requirements of the Accreditation Council for Continuing Medical Education (ACCME) to help **ensure independence** in CME activities. Everyone in a position to control the content of a CME activity must disclose **ALL** financial relationships with an ineligible company to the CME provider. This information must be disclosed to participants prior to the beginning of the activity. Also, CME providers must mitigate current conflicts of interest prior to the educational activity.

Definitions: “Financial relationships” are those whose relationships in which the individual benefits by receiving a salary, royalty, intellectual property rights, consulting fee, honoraria, ownership interest (e.g., stocks, stock options or other ownership interest, excluding diversified mutual funds), or other financial benefit.

The ACCME defines **ineligible companies** as those whose primary business is producing marketing, selling, reselling, or distributing healthcare products used by or on patients. Among the exemptions to this definition are government organizations non healthcare-related companies and nonprofit organizations that do not advocate for an ineligible company(ies). Circumstances create a **“conflict of interest”** when an individual has an opportunity to affect the CME content about products or services of an ineligible company with which they have a financial relationship.

ACCME focuses on financial relationships with ineligible companies in the 24-month period preceding the time that the individual is being asked to assume a role controlling content of the CME activity. ACCME has not set a minimal dollar amount for relationships to be significant. Inherent in any amount is the incentive to maintain or increase the value of the relationship.

The ACCME defines **“relevant financial relationships”** as financial relationships in any amount occurring within the past 24 months that create a conflict of interest.

CME Activity Planning Committee Members: If a conflict of interest exists, the Planning Committee member must withdraw from the planning committee unless the conflict can be mitigated. Mitigation may be made by one of the following methods: (1) Peer review of CME content will be conducted at another oversight level to assure balance; (2) Change in focus of course so the activity does not include information related to products or services about which the Planning Committee has a conflict; (3) Severing relationship(s) between the member and any related ineligible company; (4) Others to be determined by the SSF CME committee.

CME Activity Planners: When a conflict of interest exists, the planning committee must address the conflict by one of the following methods: (1) Review content to be presented by speaker in advance to ensure content balance; (2) Change topic so the presentation is not related to products or services where a conflict exists; (3) Select a different presenter without any related relationships with an ineligible company; (4) Include presentations by other faculty to provide an overall balance to the content of the course; (5) Limit or specify the sources for recommendations that the presenter can use.

Each speaker is required to give a balanced, evidenced-based presentation based on published research. No conclusions or recommendations without external validation may be made by a speaker with a conflict of interest.

Faculty Disclosure Summary

The following planners and presenters have/had a financial relationship with an ineligible company interest in the past 24 months: (*S = Speaker; P = Planner*)

Jens Chapman, M.D. (S, P): Consultant: Globus Medical

Andrew Dailey, M.D. (S, P): Consultant: Zimmer Biomet; Speaker: AO Spine; Research: Zimmer Biomet

James Harrop, M.D. (S): Consultant: DePuy; Honoraria: NuVasive

David Okonkwo, M.D., Ph.D.(S): Royalties: NuVasive, Zimmer Biomet

Rick Sasso, M.D. (S, P): Royalties: Medtronic, Saunders Elsevier; Consultant: NuVasive; Research Support: Stryker, AO, Cerapedics, Smith & Nephew, Lilly, Simplify, Orthofix

Rod Oskouian, M.D. (S, P): Consultant: DePuy, Globus, Stryker, Atec, Blue Ocean Spine; Royalties: Stryker, Globus; Research: AO North America

Klaus John Schnake, M.D., Ph.D. (S): Consultant: Medtronic, Swiss Medical Concepts, AO Spine International

The following planners and/or presenters have/had no financial relationship with an ineligible company in the past 24 months: (*S = Speaker; P = Planner*)

Amir Abdul-Jabbar, M.D. (P)

Bizhan Aarabi, M.D. (S)

Michael Fehlings, M.D., Ph.D. (S)

John Hurlbert, M.D., Ph.D. (S)

Wyatt Ramey, M.D. (S)

Periklis Godolias, M.D. (P)

Linda Sahlin, B.A. (P)

Cory Kepler (P)

All planners and presenters attested that their content suggestions and/or presentation(s) will provide a balanced view of therapeutic options and will be entirely free of promotional bias. All presentations have been reviewed by a planner with no conflicts of interest to ensure that the content is evidence-based and unbiased.