



11th Annual
SSF Spine Masters Course

Saturday, June 17, 2023

Syllabus

DISTINGUISHED FACULTY

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Orthopaedic Spine Surgeon
California Spine Group
San Diego, California

Jens R. Chapman, M.D.

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

Prof. Jean Dubouset (virtual)

Keynote Speaker
Neurosurgeon
Académie National de Médecine
Paris, France

Michael E. Janssen, D.O. (virtual)

Orthopaedic Surgeon
Founder, Center for Spine & Orthopedics
Thornton, Colorado

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

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

Vincent Arlet, M.D. (virtual)

Chief of Adult Spinal Deformity Surgery
Penn Medicine
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John R. Dimar, II, M.D.

Clinical Professor, Department of Orthopedic Surgery;
Chief Pediatric Orthopedic Surgeon
Norton Children's Hospital & Norton Leatherman Spine
Louisville, Kentucky

Michael Fehlings, M.D. (virtual)

Neurosurgeon
Toronto Western Hospital
Toronto, Ontario, Canada

Sean Keem, M.D., MBA

Orthopaedic Spine Surgeon
The Polyclinic
Seattle, Washington

Ganesh Shankar, M.D., Ph.D.

Assistant Professor of Neurosurgery, Harvard Medical
School
Physician Investigator in Neurosurgery, Mass General
Research Institute
Assistant in Neurosurgery, Massachusetts General
Hospital
Boston, Massachusetts

Michael Y. Wang, M.D. (virtual)

Professor, Spine Director, & Chief of Neurosurgery
University of Miami Hospital
Departments of Neurological Surgery & Rehab Medicine
The Miller School of Medicine at the University of Miami
Miami, Florida

Surgical Demonstrations Supported by Swedish Neuroscience Institute Spine Fellows

Jared Cooke, D.O., James Hicks, M.D., & Chris Seidel, D.O.

AGENDA

7 a.m. **Registration & Breakfast**

7:25 a.m. **Welcome and Course Introduction**

Jens R. Chapman, M.D. and Rod J. Oskouian Jr., M.D.

SESSION 1: LUMBAR DEGENERATION

Moderated by Jens R. Chapman, M.D.

7:30 a.m. **Striving for Excellence As A Surgeon (virtual)**

Michael Y. Wang, M.D.

Objectives:

- Summarize important lessons learned from difficult cases and career milestones
- Describe different definitions of success as a surgeon

7:45 a.m. **Achieving Bone Healing in Compromised Hosts: How To Get Optimal Results in Challenging Circumstances**

Ganesh Shankar, M.D., Ph.D.

Objectives:

- Illustrate the biology of bone maintenance and bone architecture
- Highlight important bone density assessment criteria
- Compare strategies for perioperative vs. intraoperative optimization of bone mineral density

8:05 a.m. **Fusion vs. Arthroplasties in the Lumbar Spine**

Jean-Jacques Abitbol, M.D.

Objectives:

- Compare outcomes of fusion vs. motion-sparing disc replacement surgery in the management of degenerative lumbar disc disease
- Evaluate the practical risk-benefit profile in lumbar disc replacement surgery versus fusion surgery in the management of degenerative disc disorders

8:25 a.m. **Fusion vs. Arthroplasties, Part 2: The Cervical Spine Perspective (virtual)**

Michael E. Janssen, D.O.

Objectives:

- Present data on cervical disc arthroplasty surgery outcomes in comparison to the fusion cohorts
- Describe learning points of limitations of cervical disc arthroplasties
- Compare indications for disc replacement surgery versus fusion surgery between the cervical and lumbar spine

8:40 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 1**

Dural Reconstruction – Tips & Tricks

Ganesh Shankar, M.D., Ph.D.

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

Objectives:

- Demonstrate dural reconstruction
- Outline tips and tricks for the prevention and management of dural tears

9:10 a.m. Current Assessment & Treatment of Metabolic Bone Disease

John R. Dimar, II, M.D.

Objectives:

- Describe current evaluation of a patient for bone disease
- Outline current treatment modalities and how to develop algorithms to treat bone disease prior to surgery
- Identify the consequences of performing spinal deformity surgery on a spine with osteoporosis

9:35 a.m. Session 1 Q&A

Moderated by Jens R. Chapman, M.D.

SESSION 2: DEFORMITY

Moderated by Jens R. Chapman, M.D.

9:50 a.m. MIS in Deformity Surgery - Breakthrough, or More Hassle? A Net Benefit Analysis (virtual)

Michael Y. Wang, M.D.

Objectives:

- Outline the indications for MIS surgery
- Summarize indications and possible complications of MIS surgery
- Evaluate how to weigh potential complications vs anticipated benefit

10:05 a.m. Looking Back and Looking Forward: Breakthroughs in Spinal Deformity Surgery (virtual)

Vincent Arlet, M.D.

Objectives:

- Explain the perspective of spinal deformity surgery throughout the last 100 years
- Present insight to what we are heading to with advanced technology in the next decades

**10:25 a.m. Live Demonstration Broadcast from BioSkills Lab No. 2
Posterior Fixation Techniques for Poor Bone Quality**

John R. Dimar, II, M.D.

Moderator: Jens R. Chapman, M.D.

Objectives:

- Describe approach and posterior fixation for poor bone quality
- Evaluate risk-benefit profile of posterior fixation in a patient with poor bone quality

10:55 a.m. Break & Exhibits (not for CME credit)

11:05 a.m. Isthmic Spondylolisthesis, Anterior-Posterior Combined: What's Best and Why?

Jean-Jacques Abitbol, M.D.

Objectives:

- Outline surgical considerations for isthmic spondylolisthesis
- Evaluate surgical approaches and indications for treatment of isthmic spondylolisthesis

**11:25 a.m. Live Demonstration Broadcast from BioSkills Lab No. 3
Posterior Reconstruction Techniques in the Cervical Spine**

Jens R. Chapman, M.D.

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

Objectives:

- Demonstrate techniques for posterior construction in the cervical spine
- Outline the indications for posterior reconstruction vs. an anterior approach

- 11:55 a.m. **Panel Discussion**
What Matters in Spinal Deformity Surgery
All Faculty
Objectives:
- Summarize the location and pathology with anatomy of rigid deformities
 - Outline treatment options for patients requiring surgical intervention for spinal deformity
 - Compare indications for extent of spinal deformity and type of surgery warranted
- 12:10 p.m. **Pick Up Lunch, Break & Exhibits** (*not for CME credit*)
- 12:20 p.m. **KEYNOTE: Scoliosis Is A Horizontal Plane Deformity Ending in 3D—No Matter The Age!**
(working lunch/pre-recorded)
Prof. Jean Dubousset
Objectives:
- Define the horizontal plane of deformity
 - Summarize the principles of deformity
 - Describe the importance of the 3D aspect of spinal deformities
- 12:50 p.m. **Challenges of MIS in Adult Spine Deformity (ASD) Correction**
Sean K. Keem, M.D., MBA
Objectives:
- Explain how MIS can be a powerful tool in ASD correction
 - Describe how fusion length with MIS in ASD correction is largely determined by coronal imbalance

SESSION 3: SPINAL CORD AND NEURAL TISSUE DISORDERS

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

- 1:10 p.m. **Reflections on Myelopathy: Optimizing Treatment Approaches** (*virtual*)
Michael G. Fehlings, M.D., Ph.D.
Objectives:
- Explain what clinical syndromes occur most frequently following spinal cord injury
 - Analyze effective integration of decompression strategies

- 1:25 p.m. **Live Demonstration Broadcast from BioSkills Lab No. 4A**
Effective Anterior-Posterior Thoracolumbar Reconstructive Surgery (Anterior Portion)
Jean-Jacques Abitbol, M.D.
Moderator: Jens R. Chapman, M.D.
Objectives:
- Assess technical tips and tricks for anterior-posterior surgery
 - Present potential pitfalls and how to avoid them

- 1:45 p.m. **The Importance of Dural Integrity**
Ganesh Shankar, M.D., Ph.D.
Objectives:
- Describe etiology and clinical presentation of intracranial hypotension
 - Characterize risk factors for intraoperative incidental durotomy
 - Explain goals of intraoperative and post- management of durotomy

**2:05 p.m. Live Demonstration Broadcast from BioSkills Lab No. 4B
Effective Anterior-Posterior Thoracolumbar Reconstructive Surgery (Continued; Posterior Portion)**

Jean-Jacques Abitbol, M.D.

Moderator: Jens R. Chapman, M.D.

Objectives:

- Assess technical tips and tricks for anterior-posterior surgery
- Present potential pitfalls and how to avoid them

2:25 p.m. Break & Exhibits (*not for CME credit*)

2:35 p.m. Spinal Cord Injuries: Evaluation, Initial Management, Surgical Timing and Considerations

John R. Dimar, II, M.D.

Objectives:

- Identify the key features of the ASIA Neurological Assessment tool
- Describe the pathophysiology of a spinal cord injury
- Outline the best treatment suggestions for an acute spinal cord injury
- Explain the benefit of early surgery

2:55 p.m. Management of Spinal Cord Injury: Where Have We Been? Where Are We Now? Where Are We Going? (virtual)

Michael G. Fehlings, M.D., Ph.D.

Objectives:

- Describe the current preferred treatments regarding blood pressure and general resuscitation for SCI patients
- Identify potential clinical adverse consequences of different management routes

**3:10 p.m. Live Demonstration Broadcast from BioSkills Lab No. 5
MIS Interbody Fusion**

Rod J. Oskouian Jr., M.D.

Moderator: Sean Keem, M.D., MBA

Objectives:

- Demonstrate a minimally-invasive interbody fusion
- Summarize the indications associated for MIS surgery
- Describe complications associated with MIS surgery

3:40 p.m. Session 3 Q&A
Moderated by Jens R. Chapman, MD

3:55 p.m. Course Wrap-Up
Jens R. Chapman, M.D. and Rod J. Oskouian Jr., M.D.

4 p.m. Adjourn

Acknowledgments

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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/SSFMasters2023>

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Accreditation

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Non-Physician Attendance

Certificate of participation will be provided to other healthcare professionals requesting credits. Participants should ensure in advance that their credentialing or licensing organization accepts *AMA PRA Category 1 Credits™*.

Identifying and Resolving Conflicts of Interest

Purpose: The information provided addresses several requirements of the ACCME to help **ensure purpose** in CME activities. Everyone in a position to control the content of a CME activity must disclose all relevant financial relationships with commercial interests to the CME provider. This information must be disclosed to participants prior to the beginning of the activity. Also, CME providers must resolve current conflicts of interest prior to the educational activity.

Definitions: “Financial relationships” are those relationships in which the individual benefits by receiving a salary, royalty, intellectual property rights, consulting fee, honoraria for promotional speakers’ bureau, ownership interest (e.g., stocks, stock options or other ownership interest, excluding diversified mutual funds), or other financial benefit. Financial benefits are usually associated with roles such as employment, management position, independent contractor (including contracted research), consulting, speaking and teaching, membership on advisory committees or review panels, board membership, and other activities from which remuneration is received, or expected. ACCME considers relationships of the person involved in the CME activity to include financial relationships of a spouse or partner.

The ACCME defines a **“commercial interest”** as any entity producing, marketing, re-selling or distributing health care goods or services consumed by, or used on, patients. Among the exemptions to this definition are government organizations, non-health care related companies and non-profit organizations that do not advocate for commercial interests.

Circumstances create a **“conflict of interest”** when an individual has an opportunity to affect CME content about products or services of a commercial interest with which he/she has a financial relationship.

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The ACCME defines **“relevant financial relationships”** as financial relationships in any amount occurring within the past 12 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 resolved. Resolution may be made by one of the following methods: (1) Peer review of CME content will be conducted at another oversight level to assure no commercial bias exists; (2) Change in focus of course so the activity does not include information related to products or services about which the planning committee member has a conflict; (3) Severing relationship(s) between the member and any related commercial interest; (4) Others to be determined by SSF CME Committee.

CME Activity Presenter: 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 assure 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 commercial interest; (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, evidence-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, in the past 24 months, have/had a financial relationship with a commercial interest: (*S = Speaker; P = Planner*)

Jean-Jacques Abitbol, M.D. (S): Royalties or Patent Beneficiary-Stryker, Globus Medical, Inc; Nanovis

Jens R. Chapman, M.D. (S, P): Advisor: Globus Medical; Speakers Bureau: Depuy Synthes, Medtronic, Seaspine

Jean Dubousset, M.D. (S): Royalties or Patent Beneficiary: Medtronic

John R. Dimar II, M.D. (S): Consulting Fee: Medtronic, Stryker, DePuy; Speakers Bureau: Medtronic, Stryker, DePuy; Stocks or stock options: Johnson & Johnson, Pfizer, Eli Lilly, Abbott, Gilead Science, Glaxo Smith Klein

Rod J. Oskouian, Jr., M.D. (S, P): Consultant: ATEC Spine, Blue Ocean Spine, DePuy Synthes, Globus Medical, SeaSpine, Stryker; Royalties: Globus Medical, Stryker

Ganesh Shankar M.D., Ph.D. (S): Consulting Fee: DePuy; Grant or research support: NuVasive

Michael Y. Wang, M.D. (S): Consulting Fee: DePuy Synthes Spine, Spineology, Stryker; Speakers Bureau: Medtronic, Globus; Stocks or stock options: Innovative Surgical Devices, Medical Device Partners, Kinesiometrics; Royalties or Patent Beneficiary: Children's Hospital of Los Angeles, DePuy Synthes Spine, Springer Publishing, Quality Medical Publishing

The following planners and presenters, in the past 24 months, have/had no financial relationship with a commercial interest: (*S = Speaker; P = Planner*)

Vincent Arlet, M.D. (S); **Michael G. Fehlings, M.D., Ph.D.** (S); **Michael E. Janssen, D.O.** (S); **Sean Keem, M.D., MBA;** **Gerrit Lewik, M.D.** (P); **Jonathan Plümer, M.D.** (P); **Angela Tran** (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