



**12<sup>th</sup> Annual SSF Spine Masters Course**  
**Saturday, July 13, 2024**  
Hybrid Course

**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: ROBOTICS**

*Moderated by Rod Oskouian, M.D.*

**7:30 a.m. What is the role of Robotics in spine surgery in the future, & what is my current practice?**  
*Richard Chua, M.D.*

**Objectives:**

- Summarize important lessons learned from difficult cases and career milestones
- Describe different definitions of success in Robotic surgery
- What's the role of Robotic surgery in the future?

**7:45 a.m. Robotics for Deformity cases**  
*Roland Kent, M.D.*

**Objectives:**

- Illustrate the use of Robotics in Deformity surgery
- Highlight important bone density assessment criteria
- Compare strategies for perioperative vs. intraoperative optimization for screw placement

**8:00 a.m. What are the limits of Robotics in spine surgery**  
*Martin Pham, M.D.*

**Objectives:**

- Compare outcomes of Robotics vs. non-robotic surgery
- Evaluate the practical risk-benefit profile in robotic spine surgery vs. non-robotic surgery

**8:15 a.m. Is there a role for Robotics for anything else besides screw placement?**  
*Noojan Kazemi, M.D.*

**Objectives:**

- Present data on Robotic surgery outcome in comparison to non-robotic cohorts
- Describe learning points and limitations of robotic surgery
- Compare indications for robotic surgery versus non-robotic surgery

8:30 a.m.

**Live Demonstration Broadcast from BioSkills Lab No. 1**

**Sacroiliac Screw Placement for Deformity Surgery Using Robotics**

*Martin Pham, M.D.*

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

**Objectives:**

- Demonstrate screw placement using robotics
- Outline tips and tricks for the prevention and management of dural tears

9:00 a.m.

**The Current and Future State of Robotics**

*Kevin Foley, MD*

**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

9:15 a.m.

**How I use a Robot in my Current Practice and the Limitations of Robotic surgery**

*Andrew Manista, M.D.*

**Objectives:**

- Describe the robot and its current use in my practice
- Outline the current limitations of robotic surgery
- Illustrate reimbursement and economics of robotics in spine surgery

9:30 a.m.

**Session 1: Q&A**

**SESSION 2: DEFORMITY**

*Moderated by Jens R. Chapman, M.D.*

9:35 a.m.

**MIS in Deformity Surgery - What are the risks, benefits and costs to society and the patient - is it worth it?**

*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

9:50 a.m.

**Breakthroughs in Spinal Deformity Surgery**

*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

10:05 a.m.

**Breaks & Exhibits** (not for CME credit)

**10:20 a.m. Live Demonstration Broadcast from BioSkills Lab No. 2  
Intradiscal Osteotomy with New Technologies**

*Jens Chapman, M.D.*

*Moderator: Rod Oskouian, 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

**10:50 a.m. What Are the Optimal Alignment Parameters in Adult Deformity Surgery?**

TBD

Objectives:

- What's more important, pelvic alignment or sagittal balance?
- How do you measure sarcopenia?
- Demonstrate some illustrative cases in complications

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

*Jason Savage, M.D.*

**Objectives:**

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

**11:20 a.m. Live Demonstration Broadcast from BioSkills Lab No. 3  
Two Different Types of C1 Screw Placement**

*Amir Abdul-Jabbar, M.D.*

*Moderator: Rod Oskouian, M.D.*

**Objectives:**

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

**11:50 a.m. Pick Up Lunch, Break & Exhibits** *(not for CME credit)*

**12:10 p.m. Challenges of Adult Deformity Surgery and Why Are we seeing so much PJK and PJF?**

TBD

**Objectives:**

- Explain how understanding biomechanics can be a powerful tool in deformity correction
- Describe how fusion length in ASD correction is largely determined by coronal imbalance
- *How to minimize PJF and PJK*

**12:25 p.m. Are We Too Focused on Sagittal Alignment in Deformity Surgery Instead of Looking at Other Factors, Such as Bone Density, Sarcopenia and Other Factors?**

*Steve Glassman, M.D.*

**Objectives:**

- Illustrate the optimal sagittal alignment
- Describe how to use bone density to minimize complications
- Explain how we assess and optimize fragile patients for surgery

**12:40 p.m. Lessons Learned From the Most Challenging Cases in My Career**

*Lawrence Lenke, MD*

**Objectives:**

- Review the complications associated with spine surgery
- When to use neuromonitoring
- Minimize complications and increase the chances of a good outcome

**12:55 p.m. What's New in Spinal Deformity Surgery and How do we Minimize Complications Associated with deformity surgery?**

*Christopher Shaffrey, M.D.*

**Objectives:**

- Identify the latest advancements in spinal deformity surgery, including surgical techniques, instrumentation and adjunctive therapies
- Identify strategies and techniques aimed at minimizing complications associated with spinal deformity surgery, such as neurological deficits, infection, and instrumentation failure
- Explore evidence-based approaches and best practices for preoperative planning in spinal deformity surgery

**1:10 p.m. Session 2: Q&A**

**SESSION 3: SPINAL CORD AND NEURAL TISSUE DISORDERS**

*Moderated by Jens Chapman, M.D.*

**1:15 p.m. Spinal Cord Injury, looking backward and looking forward, what does the future hold?**

*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
- *Is there a role for steroids in 2024*

**1:30 p.m. What's the Current State of the Art Management - Central Cord Syndrome**

Michael Steinmitz, MD, PhD

Objectives:

- Anterior vs. posterior
- Acute vs. delayed surgery
- How to minimize complications and optimize outcomes

**1:45 p.m. Thoracolumbar Burst Fractures**

TBD

Objectives:

- Current State of the art management for burst fractures
- When to do corpectomy vs. posterior only
- Timing of surgery
- Acute vs. delayed

**2:00 p.m. Live Demonstration Broadcast from BioSkills Lab No. 4  
Effective Anterior Approach to Thoracolumbar Reconstructive Surgery**

*Rod Oskouian, M.D.*

*Moderator: Jens R. Chapman, M.D.*

**Objectives:**

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

**2:30 p.m. Current Management and State of the Art for OPLL with Myelopathy**

TBD

**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

**2:45 p.m. Break & Exhibits** *(not for CME credit)*

**3:00 p.m. Spinal Cord Injuries: Evaluation, Initial Management, Surgical Timing and Considerations**

*Dan Resnik, 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

**3:15 p.m. Management of Spinal Cord Injury: Where Have We Been? Where Are We Now? Where Are We Going?**

*John Hurlbert, M.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

**3:30 p.m. Live Demonstration Broadcast from BioSkills Lab No. 5  
MIS Interbody Fusion**

*Noojan Kazemi, M.D.*

*Moderator: Amir Abdul-Jabbar, M.D.*

**Objectives:**

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

**4:00 p.m. Session 3: Q&A**

*Moderated by Jens R. Chapman, MD*

**4:10 p.m. Course Wrap-Up**

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

**4:15 p.m. Adjourn**

## **DISTINGUISHED FACULTY**

### **Jens R. Chapman, M.D.**

#### **Course Co-Chair**

Complex Spine Surgeon  
Swedish Neuroscience Institute  
Seattle, Washington

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

#### **Course Co-Chair**

Chief of Spine  
Director, Spine Fellowship Program  
Swedish Neuroscience Institute  
Seattle, Washington

### **Amir Abdul-Jabbar, M.D.**

Orthopaedic Spine Surgeon  
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### **Vincent Arlet, M.D.**

Chair of Spine Surgery  
Perelman School of Medicine  
Philadelphia, Pennsylvania

### **Darrel Brodke, M.D.**

Chair of the Department of Orthopaedics  
University of Utah  
Salt Lake City, Utah

### **Richard Chua, M.D.**

Director, Minimally Invasive Spine Surgery & Spinal  
Robotics  
Banner Health  
Tucson, Arizona

### **Michael Fehlings, M.D., Ph.D.**

Professor of Neurosurgery  
University of Toronto  
Toronto, Canada

### **Kevin Foley, M.D.**

Professor of Neurosurgery, Orthopedic surgery,  
and Biomedical Engineering  
University of Tennessee Health Science Center  
Memphis, Tennessee

### **Steve Glassman, M.D.**

Orthopaedic Spine Surgery  
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### **John Hurlbert, M.D., Ph.D.**

Professor of Neurosurgery, Co-Medical Director of  
the Spine Program, Program Director of Complex  
Spine Fellowship Program  
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### **Noojan Kazemi, M.D.**

Associate Professor of Neurosurgery  
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### **Roland Kent, M.D.**

Spine Surgeon  
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### **Andrew Manista, M.D.**

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### **Martin Pham, M.D.**

Neurosurgeon, Assistant Professor of Neurological  
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### **Dan Resnik, M.D.**

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**Jason Savage, M.D.**

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Chair of the Department of Neurosurgery  
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**Surgical Demonstrations Supported by Swedish Neuroscience Institute Spine Fellows**