



# **9<sup>th</sup> Annual MIS Spine Symposium**

**Saturday, July 22, 2023**

## **Syllabus**

## Esteemed Faculty

**Christoph Hofstetter, M.D., Ph.D.**

**Course Co-Chair**

Associate Professor  
Fellowship Program Co-Director  
Director of Spine Surgery  
University of Washington Medical Center  
Seattle, Washington

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

**Course Co-Chair**

Chief of Spine  
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Seattle, Washington

**Wellington Hsu, M.D.**

**Course Co-Chair**

Orthopedic Surgeon  
Northwestern Medicine  
Chicago, Illinois

**Paul Park, M.D.**

**Course Co-Chair**

Director, Neurosurgery Spine Program  
Professor, Neurological & Orthopedic Surgery  
University of Michigan  
Ann Arbor, Michigan

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**Hamid Abbasi, M.D., Ph.D., FACS, FAANS**

Neurosurgeon  
Inspired Spine  
Burnsville, Minnesota

**Anu Amin, M.D.**

Assistant Professor of Neurological Surgery  
University of Washington  
Seattle, Washington

**Victor Chang, M.D.**

Neurosurgeon  
Henry Ford Health  
West Bloomfield Township, Michigan

**William Cross III, M.D.**

Orthopedic Surgeon  
Mayo Clinic  
Rochester, Minnesota

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

Professor of Neurological Surgery, Director of  
Neurotrauma & Director of Brain & Trauma Research  
University of Pittsburgh  
Pittsburgh, Pennsylvania

**Rakesh Patel, M.D.**

Associate Professor  
Orthopaedic Surgery Clinic | Taubman Center  
University of Michigan Health  
Ann Arbor, Michigan

**William Taylor, M.D.**

Professor of Neurosurgery  
University California San Diego  
La Jolla, California

**Corinna Zygourakis, M.D. (virtual)**

Neurosurgeon  
Stanford Medicine Health Care  
Palo Alto, California

## AGENDA

- 7 a.m. **Breakfast, Exhibits & Registration**
- 7:30 a.m. **Welcome & Course Overview**  
*Paul Park, M.D. & Christoph Hofstetter, M.D., Ph.D.*

### FUSION SURGERY SESSION

#### **UNACCREDITED CONTENT**

- 7:35 a.m. **The Future VUE of MIS Surgery (not for CME credit)**  
*Christoph Hofstetter, M.D.*

- 7:50 a.m. **Q & A**

- 7:55 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 1 (not for CME credit)**  
**MIS TLIF with Teligen**  
*Christoph Hofstetter, M.D.*

- 8:15 a.m. **Q & A**

- 8:20 a.m. **Innovations in Maximizing Bone Graft Delivery for Interbody Fusion (not for CME credit)**  
*Jeff Kleiner, M.D.*

- 8:35 a.m. **Q & A**

- 8:40 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 2 (not for CME credit)**  
**KG2 Interbody Fusion System**  
*Jeff Kleiner, M.D.*

- 9 a.m. **Q & A**

- 9:05 a.m. **PTP - The Evolution of the Lateral Approach (not for CME credit)**  
*William Taylor, M.D.*

- 9:20 a.m. **Q & A**

- 9:25 a.m. **Breaks & Exhibits (not for CME credit)**

#### **ACCREDITED CONTENT BEGINS**

9:55 a.m. **Implant Technology for MIS Spine Surgery** *(virtual)*

*David Okonkwo, M.D., Ph.D.*

**Objectives:**

- Describe advanced material properties for spinal implants
- Identify the impact of implant technology on spine surgery outcomes

10:10 a.m. **Q & A**

10:15 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 3**

**SI Joint Fusion**

*William Cross, M.D.*

**Objectives:**

- Demonstrate MIS SI-joint fusion technique
- Outline the indications and risks of the MIS SI joint fusion technique
- Show the benefits of robotics in SI-joint fusion

10:45 a.m. **Q & A**

**FUTURE OUTPATIENT SURGERY SESSION**

10:50 a.m. **Incorporating Robotics into Simple & Complex MIS Cases** *(virtual)*

*Corinna Zygourakis, M.D.*

**Objectives:**

- Identify MIS cases for which robotics can be used
- Describe robotic workflows to decrease the cognitive and physical load
- Describe the “Robotic Culture”

11:05 a.m. **Q & A**

11:10 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 4a**

**Percutaneous Screw Placement for MIS**

*Rakesh Patel, M.D.*

**Objectives:**

- Explain x-ray positioning in percutaneous screw placement
- Review the navigation on Jamshidi needles
- Describe safety precautions

11:25 a.m. **Q & A**

11:30 a.m. **Achieving Fusion Across the SI Joint: Methods for True Arthrodesis**

*William Cross, M.D.*

**Objectives:**

- Identify pathology around the pelvis that can masquerade as SI Joint pain
- Describe the native anatomy of the SI Joint and where pain can be coming from

11:45 a.m. **Q & A**

11:50 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 4b**  
**Percutaneous Screw Placement for MIS**

*Anu Amin, M.D.*

**Objectives:**

- Identify tips, tricks and nuances of placing percutaneous screws
- Explain precautions to take when placing percutaneous screws

12:05 p.m. **Q & A**

12:10 p.m. **Lunch Break** (*not for CME credit*)

12:30 p.m. **Minimally Invasive Treatment of Metastatic Spine Disease: Recent Innovations**

*Anu Amin, MD*

**Objectives:**

- Describe advantages of Minimally Invasive Surgery specific to Spinal Oncology
- Describe a MIS algorithm for pathological vertebral fractures
- Explore future applications: robotics, endoscopy

12:45 p.m. **Q & A**

12:50 p.m. **Live Demonstration Broadcast from BioSkills Lab No. 5**  
**Prone Transpsoas**

*Victor Chang, M.D.*

**Objectives:**

- Demonstrate a prone lateral
- Summarize the indications associated with a prone lateral
- Describe pearls & limitations for a prone lateral

1:20 p.m. **Q & A**

1:25 p.m. **Outpatient MIS Multisegmented Fusions**

*Hamid Abbasi, M.D.*

**Objectives:**

- Identify the patient and describe the selection criteria for patients with spine pathology who would be good candidates for ASC

1:40 p.m. **Q & A**

- 1:45 p.m.      **MIS Trauma**  
*Rakesh Patel, M.D.*  
**Objectives:**
- Discuss the use of MIS surgery for the treatment of compression and burst fractures
  - Identify the use of MIS surgery to treat three column spine injuries in patients
  - Explain MIS corpectomy

2:00 p.m.      **Q & A**

### **MIS TLIF SURGERY SESSION**

- 2:05 p.m.      **MIS Intradural Tumor Surgery**  
*Paul Park, M.D.*  
**Objectives:**
- Describe the MIS tubular approach for intradural tumor resection
  - Illustrate selection criteria for MIS intradural tumor surgery
  - Recognize outcomes for MIS intradural tumor surgery

2:20 p.m.      **Q & A**

- 2:25 p.m.      **Live Demonstration Broadcast from BioSkills Lab No. 6**  
**OLLIF Anatomy & Techniques**  
*Hamid Abbasi, M.D., Ph.D.*  
**Objectives:**
- Describe Trans-Kambin oblique posterior lateral interbody fusion
  - Illustrate tips and tricks of OLLIF procedure
  - Explain clinical results of the OLLIF procedure

2:55 p.m.      **Q & A**

- 3:00 p.m.      **Osteobiologics in MIS**  
*Victor Chang, M.D.*  
**Objectives:**
- Describe the different classes of osteobiologics available for minimally invasive techniques
  - Review the current literature regarding outcomes with osteobiologics and minimally invasive fusion techniques

3:15 p.m.      **Q & A**

3:20 p.m.

**Live Demonstration Broadcast from BioSkills Lab No. 7**

**PTP Procedural Tips & Tricks**

*William Taylor, M.D.*

**Objectives:**

- Evaluate the safety and efficacy of the PTP approach
- Optimize surgical technique and instrumentation for PTP
- Illustrate the correct anatomy

3:50 p.m.

**Q & A**

3:55 p.m.

**Panel Discussion: "What Is Next for MIS?"**

*All Faculty*

*Moderator: Paul Park, M.D.*

**Objectives:**

- Recognize future innovative techniques impacting MIS surgery
- Discuss which MIS techniques will be most popular in the future

4:25 p.m.

**Q & A**

4:30 p.m.

**Course Wrap-up**

*Paul Park, M.D. & Christoph Hofstetter, M.D., Ph.D.*

4:35 p.m.

**Adjourn**

## Acknowledgements

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### **Educational Grant**

Atec Spine  
Globus Medical  
Kleiner labs  
Medical Device Business  
Services Inc.  
Orthofix/SeaSpine  
Stryker

### **Exhibit Support**

Atec Spine  
DePuy Synthes  
Globus Medical  
Kleiner labs  
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OsteoCenteric  
Styker

### **In-Kind Support**

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Advanced Research Medical  
Globus Medical  
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Medical Device Business  
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OsteoCenteric  
SeaSpine/Orthofix  
Stryker

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## Course Planning Committee

### **Christoph Hofstetter, M.D., Ph.D**

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### **Wellington Hsu, M.D.**

Northwestern Medicine  
Chicago, Illinois

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

Swedish Neuroscience Institute  
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### **Paul Park, M.D.**

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Ann Arbor, Michigan

### **Cory Kepler**

Seattle Science Foundation  
Seattle, Washington

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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/MISSymposium2023>

If you do not receive the survey via email, please call (206) 732-6500 or email [cme@seattlesciencefoundation.org](mailto:cme@seattlesciencefoundation.org).

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**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.

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**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 (or their spouses/domestic partners) have/had a financial relationship with a commercial interest: (*S = Speaker; P = Planner*)

**Hamid Abbasi, M.D., Ph.D.** (S): Grant or research support: Advanced Research Medical, LLC; Stocks or stock options, excluding diversified mutual funds: Advanced Research Medical, LLC; Royalties or Patent Beneficiary: Advanced Research Medical; IP Rights or Board Member: Inspired Spine Enterprise

**Anu Amin, M.D.** (S): Consultant: Icotec

**Victor Chang, M.D.** (S): Consultant: Globus Medical, Bioventus

**William W. Cross III, M.D.** (S): Royalties: OsteoCentric Technologies; Faculty Travel Reimbursements: AO Trauma

**Christoph Hofstetter, M.D., Ph.D.** (P,S): Consultant: J&J, Globus Medical, Innovasis, Joimax

**Wellington K. Hsu, M.D.** (P,S): Consultant: Stryker, Medtronic, Asahi, Promimic, Zsfab

**David Okonkwo, M.D., Ph.D.** (S): Royalties or Patient Beneficiary: NuVasive, ZimVie

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

**Paul Park, M.D.** (P,S): Consultant: Globus, NuVasvie, Accelus, DePuy Synthes, Lifenet; Research: Cerapedics, ISSG, SI Bone; Royalties: Globus Medical

**Rakesh D. Patel, M.D.** (S): Consultant: Globus Medical, Bioventus; Royalties or Patient Beneficiary: Globus Medical

**William Taylor, M.D.** (S): Consultant: Atec Spine, Johnson & Johnson, NuVasive

**Corinna Zygourakis, M.D.** (S): Consultant: Stryker, 7D, Amgen; Grant or Research: Stryker

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**Gerrit Lewik, M.D.** (P); **Cory Kepler** (P)

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