

**10<sup>th</sup> Annual MIS Spine Symposium:  
Contemporary Techniques and Emerging Technologies**  
Saturday, June 29, 2024

**AGENDA**

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

7:30 a.m. **Welcome & Course Overview**  
*Paul Park, M.D., Rod Oskouian, Jr., M.D., & Christoph Hofstetter, M.D., Ph.D.*

**Session 1: Unaccredited Content**

7:35 a.m. **The Future VUE of MIS Surgery**  
*Christoph Hofstetter, M.D.*

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

7:55 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 1**  
**MIS TLIF with Teligen**  
*Christoph Hofstetter, M.D.*

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

8:20 a.m. **New Drill Technology**  
*Victor Chang, M.D.*

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

8:40 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 2**  
**New Drill Technology**  
*Victor Chang, M.D.*

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

9:05 a.m. **Breaks & Exhibits** (*not for CME credit*)

**ACCREDITED CONTENT BEGINS**

**Session 2: AI & Robotics in MIS Surgery**

9:35 a.m. **Robotics Facilitates 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”

9:50 a.m. **Q & A**

9:55 a.m. **Navigation Trusted and Proven for MIS Cases**

*Roger Härtl, M.D.*

**Objectives:**

- Identify MIS cases for which navigation can be used
- Describe navigation workflow
- Describe common navigation techniques

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

10:15 a.m. **Break & Exhibits** (*not for CME credit*)

10:25 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 3**  
**Percutaneous Screw Placement for MIS using TrackX Technology**

*Muhammad Abd-El-Barr, M.D.*

**Objectives:**

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

10:55 a.m. **Q & A**

11 a.m. **Augmented Reality (AR) in MIS Cases**

*Frank Phillips, M.D.*

**Objectives:**

- Identify MIS cases for which AR can be used
- Describe AR workflow
- Describe opportunities associated with AR compared to other navigation techniques

11:15 a.m. **Q & A**

11:20 a.m. **AI Facilitating implementation of MIS**

*Joseph Schwab, M.D.*

**Objectives:**

- Identify MIS cases for which AI can be used
- Describe AI workflow
- Describe opportunities associated with AI compared to other navigation techniques

11:35 a.m. **Q & A**

11:40 a.m. **Pick Up Lunch** (*not for CME credit*)

11:50 a.m. **The Gap Between MIS Spine & Providing Open Spine Surgery to Achieve Desired Outcome In Developing Country** (*working lunch*)

**Objectives:**

- Describe the gap between MIS and open spine procedures in developing countries
- Describe how to improve outcomes in developing countries

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

**Session 3: Emerging Trends in Lumbar Interbody Fusion**

12:10 p.m. **Retropleural/Retrodiaphragmatic Approaches to the Thoracolumbar Junction**

*Paul Holman, M.D.*

**Objectives:**

- Identify pathology amenable for this approach
- Describe surgical maneuvers to facilitate an efficient approach

12:25 p.m. **Q & A**

12:30 p.m. **Extreme Lateral interbody Fusion: A Workhorse for Multilevel MIS Constructs**

*Nima Alan, M.D.*

**Objectives:**

- Identify pathology amenable for multi-level laterals
- Describe surgical maneuvers to facilitate an efficient approach

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

12:50 p.m. **Oblique Lateral interbody Fusion – Can Do it All?**

*Neel Anand, M.D.*

**Objectives:**

- Identify pathology amenable for oblique laterals
- Describe surgical maneuvers to facilitate an efficient approach

1:05 p.m. **Q & A**

1:10 p.m. **Break & Exhibits** (*not for CME credit*)

1:20 p.m. **Live Demonstration Broadcast from BioSkills Lab No. 4**

**Retropleural/Retrodiaphragmatic Approach**

*Paul Holman, M.D.*

**Objectives:**

- Demonstrate the retropleural/retrodiaphragmatic approach
- Outline the surgical maneuvers to facilitate an efficient approach

1:50 p.m. **Q & A**

1:55 p.m. **Revival of ALIF – the MIS is in the Approach/Stand Alone**

*Paul Holman, M.D.*

**Objectives:**

- Identify pathology amenable for stand alone ALIF
- Describe surgical maneuvers to facilitate and efficient approach

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

2:15 p.m. **PTP – The Evolution of the Lateral Approach**

*William Taylor, M.D.*

**Objectives:**

- Identify complications related to this approach
- Outline the indications for this approach
- Recognize the differences between lateral and prone position approaches

2:30 p.m. **Q & A**

2:35 p.m. **Live Demonstration Broadcast from BioSkills Lab No. 5**

**Navigated Lateral ALIF**

*Neel Anand, M.D.*

**Objectives:**

- Demonstrate a navigated lateral ALIF
- Outline the surgical maneuvers to facilitate an efficient approach

3:05 p.m. **Q & A**

## Session 4: MIS Osteo and Neuro-Regenerative Technologies

3:10 p.m.      **Annular Closure Techniques**  
*TBD*  
**Objectives:**

- Describe the different technologies for annular closure
- Review the current literature regarding outcomes

3:25 p.m.      **Q & A**

3:30 p.m.      **Disc Regeneration Techniques**  
*Roger Härtl, M.D.*  
**Objectives:**

- Describe the different technologies for annular closure
- Review the current literature regarding outcomes

3:45 p.m.      **Q & A**

3:50 p.m.      **Break & Change Into Scrubs** (*not for CME credit*)

4 p.m.      **Live Demonstration Broadcast from BioSkills Lab No. 6**  
**Robotic MIS Screw Placement**  
*Paul Park, M.D.*  
**Objectives:**

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

4:30 p.m.      **Q & A**

4:35 p.m.      **Break & Change Into Scrubs** (*not for CME credit*)

4:40 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

5:10 p.m.      **Q & A**

## Session 5: Hands-on BioSkills Lab

5:15 p.m.      **Hands-On BioSkills Lab Rotations** (*20 min. rotations*)

**Station 1: Robotic MIS Screw Placement**

*Paul Park, M.D. & William Taylor, M.D.*

**Station 2: Retropleural/Retrodiaphragmatic Approach**

*Paul Holman, M.D. &*

**Station 3: Navigated Lateral ALIF**

*Neel Anand, M.D. & Joseph Schwab, M.D.*

**Station 4: Percutaneous Screw Placement for MIS**

*Muhammed Abd-El-Barr, M.D. & Victor Chang, M.D.*

6:30 p.m.      **Adjourn**

## 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  
Swedish Neuroscience Institute  
Seattle, Washington

**Paul Park, M.D.**  
**Course Co-Chair**  
Neurosurgeon  
Semmes Murphy  
Memphis, Tennessee

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**Muhammed Abd-El-Barr, M.D., Ph.D.**  
Neurosurgeon  
Duke University  
Durham, North Carolina

**Nima Alan, M.D.**  
Assistant Professor  
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**Neel Anand, M.D.**  
Professor of Orthopedic Surgery  
Director of the Cedars-Sinai Spine Center  
Cedars Sinai Medical Center  
Los Angeles, California

**Victor W. Chang, MD**  
Neurosurgeon  
Henry Ford Health System  
West Bloomfield, Michigan

**Roger Härtl, M.D.**  
Hansen-MacDonald Professor of Neurological Surgery  
Director of Spinal Surgery, Weill Cornell Medicine  
Neurosurgical Director, Och Spine at NewYork-  
Presbyterian / Weill Cornell Medical Center  
New York, New York

**Paul Holman, M.D.**  
Neurosurgeon  
Houston Methodist  
Houston, Texas

**Soren Otieno, M.D.**  
Orthopaedic Spine Surgeon  
National Spine Hospital  
Nairobi, Kenya

**Frank Phillips, M.D.**  
Professor, Director, Section of MIS Spine Surgery  
Director, Division of Spine Surgery  
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**Joseph H. Schwab, M.D.**  
Director of Spine Oncology  
Cedars Sinai Medical Center  
Los Angeles, California

**William Taylor, M.D.**  
Professor of Neurosurgery  
University California San Diego  
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**Corinna Zygourakis, M.D. (virtual)**  
Assistant Professor of Neurosurgery  
Stanford Medicine Health Care  
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