

SEATTLE  
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FOUNDATION

SEVENTH ANNUAL

# MINIMALLY INVASIVE SPINE SYMPOSIUM

Seattle Science Foundation

JULY 24, 2021



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## DISTINGUISHED FACULTY

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

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

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

Clifford C. Raisbeck Distinguished Professor of  
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Professor, Orthopaedic & Neurological Surgery  
Northwestern University Feinberg School of Medicine  
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### **Rod J. Oskouian, Jr., M.D., FAANS**

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

Chief of Spine  
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Neurosurgeon  
University of Miami  
Miami, Florida

### **William Taylor M.D.**

Clinical Professor, Neurological Surgery  
University of California San Diego  
San Diego, California



**7<sup>th</sup> Annual MIS Spine Symposium: 360° MIS of the Lumbar Spine**  
**Saturday, July 24, 2021**

**AGENDA**

- 7 a.m.           **Breakfast, Exhibits & Registration**
- 7:30 a.m.       **Welcome & Course Overview**  
*Paul Park, M.D., & Christoph Hofstetter, M.D.*
- 7:35 a.m.       **Enabling Technology: Augmented Reality/Virtual Reality (AR/VR)**  
*Timor Urakov, M.D. (via broadcast)*  
**Objectives:**
- Briefly describe AR and VR technology
  - Describe spinal applications of AR/VR
  - Discuss the impact of AR/VR on minimally invasive spine surgery
- 7:50 a.m.       **Q & A**
- 7:55 a.m.       **Enabling Technology: Navigation**  
*Shane Burch, M.D. (via broadcast)*  
**Objectives:**
- Describe the potential applications of navigation beyond screw placement
  - Discuss the impact of navigation on minimally invasive spine surgery
  - Discuss limitations of spinal navigation
- 8:10 a.m.       **Q & A**
- 8:15 a.m.       **Enabling Technology: Robotics**  
*Laura Snyder, M.D. (via broadcast)*  
**Objectives:**
- Describe the features of spinal robots
  - Discuss the impact of robots on minimally invasive surgery
  - Discuss limitations of current spinal robots
- 8:30 a.m.       **Q & A**
- 8:35 a.m.       **Live Demonstration Broadcast from BioSkills Lab No. 1**  
**Prone Lateral w/ Posterior MIS fixation**  
*Rod J. Oskouian, Jr., M.D.*  
**Objectives:**
- Demonstrate a Prone Lateral with posterior MIS fixation
  - Provide pearls for the Prone Lateral
  - Outline the limitations of the Prone Lateral

- 9:05 a.m.      **MIS Spine Surgery: Advantages & Disadvantages**  
*Amir Abdul-Jabbar, M.D.*  
**Objectives:**
- Compare and contrast open vs. MIS surgery
  - Outline advantages of MIS surgical techniques
  - Describe the limitations of MIS surgical techniques
- 9:20 a.m.      **Q & A**
- 9:25 a.m.      **Introducing the LIFs (Lateral Interbody Fusions):  
MIS TLIF, Endoscopic TLIF, OLIF, ALIF**  
*Victor Chang, M.D.*  
**Objectives:**
- Provide overview of the various MIS interbody techniques
  - Discuss defining characteristics of each technique
  - Describe the biggest limitations of each technique
- 9:40 a.m.      **Q & A**
- 9:45 a.m.      **Prone Lateral**  
*William Taylor, M.D. (via broadcast)*  
**Objectives:**
- Discuss the indications associated with the prone lateral approach
  - Outline the steps of the prone lateral approach
  - Describe pearls & limitations for the prone lateral approach
- 10:00 a.m.      **Q & A**
- 10:05 a.m.      **Case Presentation: Prone Lateral**  
*William Taylor, M.D. (via broadcast)*  
**Objectives:**
- Describe pearls for the prone lateral approach
  - Discuss the limitations of the prone lateral approach
- 10:15 a.m.      **Q & A**
- 10:20 a.m.      **Why PTP is Not Prone Lateral**  
*Luiz Pimenta, M.D., Ph.D. (via broadcast)*  
**Objectives:**
- Identify the difference in lordosis in the prone position
  - Explain the different position of psoas and lumbar plexus that makes L4-L5 level safer
  - Recognize the importance of measuring SSEP for safety of anatomical landmark
- 10:35 a.m.      **Q & A**
- 10:40 a.m.      **Live Demonstration Broadcast from BioSkills Lab No. 2**  
**Robotic Assisted Prone Lateral**  
*Paul Park, M.D.*  
**Objectives:**
- Demonstrate robotic assisted prone lateral approach
  - Provide pearls for the robotic assisted prone lateral approach
  - Outline the limitations of the robotic assisted prone lateral approach

11:10 a.m.      **Oblique Lateral Interbody Fusion (OLIF)**  
*Neel Anand, M.D. (via broadcast)*  
**Objectives:**

- Discuss the indications associated with OLIF
- Outline the steps of the OLIF procedure
- Describe pearls and limitations for the OLIF procedure

11:25 a.m.      **Q & A**

11:30 a.m.      **Case Presentation: OLIF**  
*Neel Anand, M.D. (via broadcast)*  
**Objectives:**

- Describe pearls for the OLIF procedure
- Discuss the limitations of the OLIF procedure

11:40 a.m.      **Q & A**

11:45 a.m.      **Live Demonstration Broadcast from BioSkills Lab No. 3**  
**OLIF**  
*Richard A. Hynes, M.D.*  
**Objectives:**

- Demonstrate an OLIF
- Provide pearls for the OLIF
- Outline the limitations of the OLIF

12:15 p.m.      **Lunch & Exhibits** *(not for CME credit)*

12:35 p.m.      **MIS Transforaminal Lateral Interbody Fusion (TLIF)**  
*Wellington Hsu, M.D. (via broadcast)*  
**Objectives:**

- Discuss the indications associated with TLIF
- Outline the steps of the TLIF procedure
- Describe pearls for the TLIF procedure
- Discuss the limitations of the TLIF procedure

12:50 p.m.      **Q & A**

12:55 p.m.      **Case Presentation: MIS TLIF**  
*Wellington Hsu, M.D. (via broadcast)*  
**Objectives:**

- Describe pearls for the TLIF procedure
- Discuss the limitations of the TLIF procedure

1:05 p.m.      **Q & A**

1:10 p.m.      **Live Demonstration Broadcast from BioSkills Lab No. 4**  
**MIS TLIF**  
*Paul Park, M.D.*  
**Objectives:**

- Demonstrate the MIS TLIF
- Provide pearls for the MIS TLIF
- Outline the limitations of the MIS TLIF

1:40 p.m.

**Endoscopic LIF**

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

**Objectives:**

- Discuss the indications associated with endoscopic LIF
- Outline the steps of the endoscopic LIF
- Describe pearls for the endoscopic LIF
- Discuss the limitations of the endoscopic LIF

1:55 p.m.

**Q & A**

2 p.m.

**Case Presentation: Endoscopic LIF**

*Osama Kashlan, M.D., M.P.H.*

**Objectives:**

- Describe pearls for the endoscopic LIF
- Discuss the limitations of the endoscopic LIF

2:10 p.m.

**Q & A**

2:15 p.m.

**Live Demonstration Broadcast from BioSkills Lab No. 5**

**Endoscopic LIF**

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

**Objectives:**

- Demonstrate the endoscopic LIF
- Provide pearls for the endoscopic LIF
- Outline the limitations of the endoscopic LIF

2:45 p.m.

**Panel Discussion: Too Many MIS LIFs: Which is Best?**

*All Faculty*

**Objectives:**

- Discuss the relative advantages of each type of MIS LIF
- Discuss suboptimal condition/indication for each MIS LIF technique

3:15 p.m.

**Adjourn**

## Acknowledgements

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### Educational Grant

DePuy Synthes  
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## Course Planning Committee

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University of Michigan  
Ann Arbor, Michigan

### **Ashley Martin**

Education Specialist  
Seattle Science Foundation

### **Linda Sahlin**

Director of Education  
Seattle Science Foundation

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**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/MIS-2021>

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

**Neel Anand, M.D.** (S): Consultant: DePuySynthes, Medtronic; Scientific Advisory Board: Spinal Simplicity, Viseon, Spinal Balance, Theracell; Royalties: Medtronic, Globus Medical, Elsevier; Receipt of Intellectual Property Rights/Patent Holder: Medtronic, Inc.; Ownership Interest: Theracell

**Shane Burch, M.D.** (S): Consultant: Medtronic; Speaker: Medtronic; Contracted Research: Medtronic; Intellectual Property: Medtronic, NuVasive

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

**Christoph Hofstetter, M.D., Ph.D.** (P,S): Consultant: Innovasis, Globus, Joimax, J&J; Grant Support: Raisbeck Foundation, NIH, Department of Defense, Neilsen Foundation, NIH

**Wellington K. Hsu, M.D.** (P,S): Royalties, Consultant: Stryker; Consultant: Asahi; Consultant: Bioventus; Consultant: Medtronic; Contracted Research: Inion

**Paul Park, M.D.** (P,S): Royalties, Consultant: Globus Medical; Consultant: NuVasive; Contracted Research: DePuy Synthes, ISSG

**Luiz Pimenta, M.D.** (S): Consultant: Alphatec Spine

**William Taylor, M.D.** (S): Royalties: NuVasive; Consultant: Atec, DePuy Synthes

**Rod J. Oskouian, Jr., M.D.** (P,S): Consultant: DePuySynthes, Globus Medical, Stryker, Atec Spine, Blue Ocean Spine; Royalties: Stryker, Globus Medical; Grants: AO North America

**Timur Urakov, M.D.** (S): Consultant: Medtronic, DePuy

**Laura Snyder, M.D.** (S): Consultant: Globus, Medtronic; Contracted Research: Biogen

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The following planners and/or presenters (or their spouses/domestic partners) have/had no financial relationship with a commercial interest (*S = Speaker; P = Planner*)

**Amir Abdul-Jabbar, M.D.** (S); **Osama Kashlan, M.D.** (S); **Richard A. Hynes, M.D.** (S);

**Linda Sahlin** (P) **Ashley Martin** (P)

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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.