AAOS Contemporary Principles of Minimally Invasive Spinal Surgery Including Navigation and Robotics

PROGRAM SCHEDULE

June 23 – 24, 2017
OLC Education & Conference Center, Rosemont, IL

Steven C. Ludwig, MD
Isador H. Lieberman, MD, MBA, FRCSC
Course Directors
AAOS Contemporary Principles of Minimally Invasive Spinal Surgery including Navigation and Robotics # 3085
June 23-24, 2017
OLC Education and Conference Center, Rosemont IL
Steven C. Ludwig, MD and Isador H. Lieberman, MD, MBA, FRCSC; Course Directors

CMEs: 15.25
As of March 3, 2017
Content and faculty subject to change

PROGRAM SCHEDULE

NOTE: ALL participants are encouraged to bring their own loupes.

Full Breakfast is Available at Hampton Inn and Suites Beginning at 6 am for Hotel Guests
Coffee and Light Pickup Items are Available at the Course

FRIDAY, JUNE 23, 2017

7:15 am Registration (Registration Desk A)

7:55 Welcome and Course Introduction (Auditorium A)
Steven C. Ludwig, MD

MIS & LUMBAR LORDOSIS
Moderator: Isador H. Lieberman, MD, MBA, FRCSC

MIS Techniques “Step by Step”

08:00 Direct Lateral Transpsoas Approach
Gregory Lopez, MD

08:15 Lateral Pre-psoas Approach
Shane Burch, MD

08:30 MIS TLIF
Sheeraz Qureshi, MD

08:45 Percutaneous Pedicle Screw Placement
The available technologies (fluoro, 2D nav, 3D nav, intra-op CT, Navigation, Guidance)
Krzysztof B. Siemionow, MD

09:00 How to Use “Navigation to Place Pedicle Screws”
Terrence T. Kim, MD

09:15 How to Use “Robotic Guidance to Place Pedicle Screws”
Kornelis A. Poelstra, MD

09:30 MIS TLIF + Cortical Screws
Gurvinder S. Deol, MD

* all registrants will rotate through each of the 7 stations
09:45   MIS Techniques for Trauma  
*Steven C. Ludwig, MD*

10:00  Robotic Guidance for S2 Alar Iliac Screws  
*Isador H. Lieberman, MD, MBA, FRCSC*

10:15  Questions & Discussion

10:30  Refreshment Break *(Auditorium A Foyer)*

Exhibits

**HANDS-ON SURGICAL SKILLS LAB**

10:45  Registrants will rotate through two of the following:*  
- TLIF – *Sheeraz Qureshi, MD*  
- TLIF with Cortical Screws – *Gurvinder S. Deol, MD*  
- DL Trans Psoas – *Gregory Lopez, MD*  
- DL Pre Psoas – *Shane Burch, MD*  
- Navigated Ped Screw Placement – *Terrence T. Kim, MD*  
- Robotic Guided Ped Screw Placement – *Kornelis A. Poelstra, MD*  
- Long Construct with Iliac Fixation – *Krzysztof B. Siemionow, MD*

**Lab Leaders:** *Isador H. Lieberman, MD, MBA, FRCSC and Steven C. Ludwig, MD*

**LUNCH (Auditorium A)**

12:45  Pickup Lunch *(Auditorium A Foyer)*

**DEBATE**

Moderator *Isador H. Lieberman, MD, MBA, FRCSC*

1:00  Pro: Advantages of Anterior Column Release and Hyperlordotic Cages  
*Gregory Lopez, MD*

1:10  Con: Disadvantages of Anterior Column Release and Hyperlordotic Cages  
*Krzysztof B. Siemionow, MD*

1:20  Pro Rebuttal  
*Gregory Lopez, MD*

1:22  Con Rebuttal  
*Krzysztof B. Siemionow, MD*

1:24  Audience Discussion

1:30  Rotate to Lab

* all registrants will rotate through each of the 7 stations
**HANDS-ON SURGICAL SKILLS LAB**

1:45 Registrants will rotate through two of the following:
- TLIF – *Sheeraz Qureshi, MD*
- TLIF with Cortical Screws – *Gurvinder S. Deol, MD*
- DL Trans Psoas – *Gregory Lopez, MD*
- DL Pre Psoas – *Shane Burch, MD*
- Navigated Ped Screw Placement – *Terrence T. Kim, MD*
- Robotic Guided Ped Screw Placement – *Kornelis A. Poelstra, MD*
- Long Construct with Iliac Fixation – *Krzysztof B. Siemionow, MD*

Lab Leaders: *Isador H. Lieberman, MD, MBA, FRCSC and Steven C. Ludwig, MD*

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:45</td>
<td>Refreshment Break <em>(Auditorium A Foyer)</em>&lt;br&gt;Exhibits</td>
</tr>
<tr>
<td>4:00</td>
<td>Literature to Support Navigation&lt;br&gt;<em>Terrence T. Kim, MD</em></td>
</tr>
<tr>
<td>4:15</td>
<td>Literature to Support Robotics&lt;br&gt;<em>Kornelis A. Poelstra, MD</em></td>
</tr>
<tr>
<td>4:30</td>
<td>Case Discussion&lt;br&gt;Moderator: <em>Steven C. Ludwig, MD</em>&lt;br&gt;Faculty &amp; participants encouraged to bring cases</td>
</tr>
<tr>
<td>5:00</td>
<td>AAOS Program Concludes for the Day</td>
</tr>
<tr>
<td>5:00 – 6:00 pm</td>
<td>Industry Breakout Session # 1 *(Non-CME) <em>(Auditorium A)</em></td>
</tr>
</tbody>
</table>

* These Industry Spotlight Sessions are Non-CME; Views and Products Are Not Endorsed by AAOS

* all registrants will rotate through each of the 7 stations
**SATURDAY, JUNE 24, 2017**

**Full Breakfast is Available at Hampton Inn and Suites Beginning AT 6 am for Hotel Guests**
**Coffee and Light Pickup Items are Available at the Course**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00</td>
<td>Industry Breakout Session # 2* (Non-CME) <em>(Auditorium A)</em></td>
</tr>
<tr>
<td>8:10</td>
<td>AAOS Program Resumes</td>
</tr>
</tbody>
</table>
| 8:10 am | Announcements *(Auditorium A)*  
  *Isador H. Lieberman, MD, MBA, FRCSC*                               |

**NAVIGATION, ROBOTIC GUIDANCE & MIS ECONOMICS**
Moderator: *Steven C. Ludwig, MD*

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 8:15  | Science of Registration and Referencing “What Happens in the Black Box”  
  *Shane Burch, MD*                                               |
| 8:25  | Economics of Navigation and Robotics  
  *Terrence T. Kim, MD*                                            |
| 8:35  | Economics of MIS Surgery  
  *Gurvinder S. Deol, MD*                                          |
| 8:45  | Minimizing Radiation Exposure during MIS surgery  
  *Krzysztof B. Siemionow, MD*                                      |
| 8:55  | Viability of Outpatient MIS Surgery  
  *Sheeraz Qureshi, MD*                                             |
| 9:05  | How has Navigation Helped This Patient  
  *Gregory Lopez, MD*                                               |
| 9:15  | How has Robotics Helped This Patient  
  *Isador H. Lieberman, MD, MBA, FRCSC*                             |
| 9:25  | Questions & Discussion                                              |
| 10:00 | Refreshment Break *(Auditorium A Foyer)*  
  *Exhibits*  
  Rotate to Lab                                                     |

* all registrants will rotate through each of the 7 stations
HANDS-ON SURGICAL SKILLS LAB
10:15 Registrants will rotate through two of the following:
   TLIF – Sheeraz Qureshi, MD
   TLIF with Cortical Screws – Gurvinder S. Deol, MD
   DL Trans Psoas – Gregory Lopez, MD
   DL Pre Psoas – Shane Burch, MD
   Navigated Ped Screw Placement – Terrence T. Kim, MD
   Robotic Guided Ped Screw Placement – Kornelis A. Poelstra, MD
   Long Construct with Iliac Fixation – Krzysztof B. Siemionow, MD
Lab Leaders: Isador H. Lieberman, MD, MBA, FRCSC and Steven C. Ludwig, MD

LUNCH & LECTURES (Auditorium A)
Moderator: Isador H. Lieberman, MD, MBA, FRCSC
12:15 Pickup Lunch (Auditorium A Foyer)
12:25 MIS Surgery Strategies for Tumors
   Isador H. Lieberman, MD, MBA, FRCSC
12:35 MIS Surgery Strategies for Kyphosis Correction
   Steven C. Ludwig, MD
12:45 MIS Strategies for Adult Deformity Surgery
   Shane Burch, MD
12:55 Questions and Discussion
   Steven C. Ludwig, MD and Isador H. Lieberman, MD, MBA, FRCSC
1:10 Rotate to Lab

HANDS-ON SURGICAL SKILLS LAB
1:20 Registrants will rotate through last rotation followed by open lab*
   TLIF – Sheeraz Qureshi, MD
   TLIF with Cortical Screws – Gurvinder S. Deol, MD
   DL Trans Psoas – Gregory Lopez, MD
   DL Pre Psoas – Shane Burch, MD
   Navigated Ped Screw Placement – Terrence T. Kim, MD
   Robotic Guided Ped Screw Placement – Kornelis A. Poelstra, MD
   Long Construct with Iliac Fixation – Krzysztof B. Siemionow, MD
Lab Leaders: Isador H. Lieberman, MD, MBA, FRCSC and Steven C. Ludwig, MD

4:00 Program Adjourns

* all registrants will rotate through each of the 7 stations

The American Academy of Orthopaedic Surgeons is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education (CME) for physicians. The American Academy of Orthopaedic Surgeons designates this live activity for a maximum of 15.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.