5TH ANNUAL
International Spinal Deformity Symposium
December 6–7, 2019
Convene Conference Center +
The Muse Hotel

JOINTLY PROVIDED BY

COURSE CHAIRMEN
Lawrence G. Lenke, MD | Frank Schwab, MD | Christopher I. Shaffrey, MD
We’re excited to return ISDS to New York in 2019!

Please consider attending this comprehensive program, whether it is for the first time, or the fourth. The sessions are structured to tackle each deformity condition from beginning to end, including:

- Review of relevant research
- Analysis of imaging and decision-making
- Step-by-step treatment options
- Post-op outcomes and complications
- Tips & pearls from expert faculty

You’ll return to your practice with numerous insights to use right away. See you in New York!

Larry Lenke, MD
Frank Schwab, MD
Chris Shaffrey, MD

“Fantastic two days… level of discussion was top notch.”
— PAST ATTENDEE

Chairmen

Lawrence G. Lenke, MD
Columbia University Medical Center
Daniel and Jane Och Spine Hospital
New York, NY

Frank J. Schwab, MD
Hospital for Special Surgery
New York, NY

Christopher I. Shaffrey, MD
Duke University
School of Medicine
Durham, NC

“Very high yield; lots of helpful things learned.”
— PAST ATTENDEE

International Guest Speaker

Ronald Bartels, MD, PhD
Radboud University Medical Center
Nijmegen, Netherlands

Invited Faculty

Todd J. Albert, MD, PhD
Hospital for Special Surgery
New York, NY

Peter D. Angevine, MD
The Spine Hospital at the Neurological Inst. of NY
New York, NY

Ali A. Baaj, MD
Weill Cornell Neurosurgery
New York, NY

Shay Bess, MD
Denver International Spine Center
Denver, CO

Aaron J. Buckland, MD, FRACS
NYU Langone Medical Center
New York, NY

Samuel K. Cho, MD
Icahn School of Medicine at Mount Sinai
New York, NY

Jeff Gum, MD
Norton Leatherman Spine Center
Louisville, KY

Munish C. Gupta, MD
Washington University Orthopedics
St. Louis, MO

Roger Härtl, MD
Weill Cornell Center for Comprehensive Spine Care
New York, NY

Isaac O. Karikari, MD
Duke Spine Center
Durham, NC

Michael Kelly, MD, MSc
Washington University Orthopedics
St. Louis, MO

Han Jo Kim, MD
Hospital for Special Surgery
New York, NY

Yongjung (Jay) Kim, MD
Columbia University Medical Center
New York, NY

Eric O. Klineberg, MD
UC Davis
Sacramento, CA

Virginie Lafage, PhD
Hospital for Special Surgery
New York, NY

Ronald A. Lehman, Jr., MD
Columbia Orthopedics
New York, NY

Stephen Lewis, MD
Toronto Western Hospital
Toronto, Ontario

Christopher E. Mandigo, MD
The Spine Hospital at the Neurological Inst. of NY
New York, NY

Greg Mundis, MD
Scripps Health
La Jolla, CA

Peter Passias, MD
NYU Langone Medical Center
New York, NY

David Polly, MD
University of Minnesota
Minneapolis, MN

Themistocles Protopsaltis, MD
NYU Langone Medical Center
New York, NY

John M. Rhee, MD
Emory Orthopaedics & Spine Center
Atlanta, GA

K. Daniel Riew, MD
Columbia Orthopedics
New York, NY

Zeeshan M. Sardar, MD
Columbia University Medical Center
New York, NY

Justin S. Smith, MD
University of VA
Dept. of Neurosurgery
Charlottesville, VA

Ellen M. Soffin, MD, PhD
Hospital for Special Surgery
New York, NY

Vincent C. Traynelis, MD, PhD
Rush University Medical Center
Chicago, IL

Mark Weidenbaum, MD
Columbia University Medical Center
New York, NY

Faculty Subject to Change
## Session 3: Rigid Dropped-head Syndrome in an Elderly Patient without Prior Surgery

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 3: Rigid Dropped-head Syndrome in an Elderly Patient without Prior Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30</td>
<td>Introduction to Problem and Recent Literature Review</td>
</tr>
<tr>
<td>1:38</td>
<td>Analysis and Decision-Making Based on Clinical and Radiographic Presentation</td>
</tr>
<tr>
<td>1:56</td>
<td><strong>Step-by-Step Surgical Treatment:</strong></td>
</tr>
<tr>
<td>1:56</td>
<td>Option 1: Posterior Correction Alone</td>
</tr>
<tr>
<td>2:04</td>
<td>Option 2: Ant. Correction followed by Post. Augmentation</td>
</tr>
<tr>
<td>2:12</td>
<td>Option 3: Post. Correction Followed by Ant. Augmentation</td>
</tr>
<tr>
<td>2:30</td>
<td>Post-op Considerations, Complications, Return to Normal Function, and Outcomes</td>
</tr>
<tr>
<td>2:38</td>
<td>Tips and Pearls</td>
</tr>
<tr>
<td>2:46</td>
<td>Case &amp; Session Discussion</td>
</tr>
<tr>
<td>3:15</td>
<td>Refreshment Break and Exhibit Viewing</td>
</tr>
</tbody>
</table>

## Session 4: Special Session

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 4: Special Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:40</td>
<td>Introduction of Keynote Speaker</td>
</tr>
<tr>
<td>3:45</td>
<td><strong>Keynote Lecture:</strong> Ronald Bartels, MD, PhD</td>
</tr>
<tr>
<td>4:25</td>
<td>Is There a Role for MIS Surgery in Cervical Deformity Realignment?</td>
</tr>
<tr>
<td>4:33</td>
<td>C3-C7 Pedicle Screws vs. Lateral Mass Fixation: Benefit vs. Risk Ratio</td>
</tr>
<tr>
<td>4:41</td>
<td>How to Prevent Cervical Root Neuropathies Post-op and How to Treat if They Occur</td>
</tr>
<tr>
<td>4:49</td>
<td>PJK Prevention: What Really Seems to Work for My Patients?</td>
</tr>
<tr>
<td>5:15</td>
<td>Adjourn</td>
</tr>
</tbody>
</table>

### Session 1: Mid-Cervical Kyphosis with Myeloradiculopathy

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 1: Mid-Cervical Kyphosis with Myeloradiculopathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Welcome &amp; Introduction</td>
</tr>
<tr>
<td>8:05</td>
<td>Introduction to Problem and Recent Literature Review</td>
</tr>
<tr>
<td>8:13</td>
<td>Analysis and Decision-making Based on Clinical and Radiographic Presentation</td>
</tr>
<tr>
<td>8:31</td>
<td><strong>Step-by-Step Surgical Treatment:</strong></td>
</tr>
<tr>
<td>8:31</td>
<td>Option 1: 3-level ACDF with Partial Kyphosis Correction</td>
</tr>
<tr>
<td>8:39</td>
<td>Option 2: 3-level ACDF with Aggressive Kyphosis Correction</td>
</tr>
<tr>
<td>8:47</td>
<td>Option 3: A/P with Aggressive Kyphosis Correction</td>
</tr>
<tr>
<td>9:05</td>
<td>Post-op Considerations, Complications, Return to Normal Function, and Outcomes</td>
</tr>
<tr>
<td>9:13</td>
<td>Tips and Pearls</td>
</tr>
<tr>
<td>9:21</td>
<td>Case &amp; Session Discussion</td>
</tr>
<tr>
<td>9:50</td>
<td>Refreshment Break and Exhibit Viewing</td>
</tr>
</tbody>
</table>

### Session 2: Adult Degenerative Scoliosis with Major TL Curve

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 2: Adult Degenerative Scoliosis with Major TL Curve</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00</td>
<td>Recent Literature Review and What I Am Doing Now</td>
</tr>
<tr>
<td>10:28</td>
<td>Analysis and Decision-making Based on Clinical and Radiographic Presentation</td>
</tr>
<tr>
<td>10:42</td>
<td><strong>Case Presentation and Step-by-Step Surgical Treatment</strong></td>
</tr>
<tr>
<td>10:50</td>
<td>Option 1: Open Posterior-only Approach</td>
</tr>
<tr>
<td>10:58</td>
<td>Option 2: Open Anterior/Posterior Approaches</td>
</tr>
<tr>
<td>11:06</td>
<td>Option 3: MIS Anterior/Posterior Approaches</td>
</tr>
<tr>
<td>11:14</td>
<td>What I Tell My Patients: Complications, Return to Normal Function, and Outcomes</td>
</tr>
<tr>
<td>11:22</td>
<td>What I Do Different Now vs. 10 Years Ago</td>
</tr>
<tr>
<td>11:30</td>
<td>Case Discussion on UT vs. LT selection</td>
</tr>
<tr>
<td>11:55</td>
<td>Session Discussion</td>
</tr>
<tr>
<td>12:25</td>
<td>Lunch with Non-CME Presentations</td>
</tr>
</tbody>
</table>

**PLATINUM SUPPORTER:**

**HOSPITAL FOR SPECIAL SURGERY**
### Session 7: Best Paper & Quick Tips

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:05</td>
<td>Best Paper Presentation &amp; Award</td>
</tr>
<tr>
<td></td>
<td><strong>8-Minute Tips</strong></td>
</tr>
<tr>
<td>1:12</td>
<td>Which Patients Am I Doing a 3CO on for ASD?</td>
</tr>
<tr>
<td>1:20</td>
<td>Which Patients Am I Telling “NO” Regarding ASD Surgery?</td>
</tr>
<tr>
<td>1:28</td>
<td>Navigation/Robotics for Simple or Complex ASD: Helpful Technology or a Waste of Money and Time?</td>
</tr>
<tr>
<td>1:44</td>
<td>How to Prevent Lumbar Root Neuropraxias Post-op from ASD Surgery and How to Treat if They Occur</td>
</tr>
<tr>
<td>1:52</td>
<td>Multi-Rod Constructs for ASD: Why, When and How?</td>
</tr>
<tr>
<td>2:00</td>
<td>Predictive Analytics for ASD: the Future is Now!</td>
</tr>
<tr>
<td>2:08</td>
<td>Discussion</td>
</tr>
<tr>
<td>2:15</td>
<td>Refreshment Break</td>
</tr>
</tbody>
</table>

### Session 8: PSF Complicated by DWI and Implant Removal, Pseudarthrosis, Coronal and Sagittal Imbalance: How to Salvage?

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:30</td>
<td>Introduction to Problem and Recent Literature Review</td>
</tr>
<tr>
<td>2:38</td>
<td>Analysis and Decision-making Based on Clinical and Radiographic Presentation</td>
</tr>
<tr>
<td>2:56</td>
<td>Step-by-Step Surgical Treatment:</td>
</tr>
<tr>
<td></td>
<td><strong>Option 1: Rev. PSF with PCOs/TLIFs</strong></td>
</tr>
<tr>
<td>3:04</td>
<td><strong>Option 2: ASF/Rev. PSF</strong></td>
</tr>
<tr>
<td>3:12</td>
<td><strong>Option 3: Rev. PSF with 3CO</strong></td>
</tr>
<tr>
<td>3:30</td>
<td>Tips and Pearls</td>
</tr>
<tr>
<td>3:38</td>
<td>Case &amp; Session Discussion</td>
</tr>
<tr>
<td>4:05</td>
<td>Adjourn</td>
</tr>
</tbody>
</table>

Program subject to change.
Course Objectives
At the conclusion of this activity, participants should be better able to:

- Summarize current research and best practices in analysis and decision-making in the management of adolescent and adult spinal deformity.
- Describe step-by-step treatment options for optimal outcomes for mid-cervical kyphosis; adult degenerative scoliosis; rigid dropped-head syndrome; cervical thoracic PJK; and complication revision surgeries.
- Discuss post-op considerations and complications avoidance in the surgical management of spinal deformity.

“Excellent content. By far the best course I have attended in years.”
— PAST ATTENDEE

Who Should Attend
Orthopaedic and neurological surgeons, fellows, and residents who include spinal deformity surgery in their practices.

Physician Accreditation
This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint providership of Medical Education Resources and BroadWater. Medical Education Resources is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation
Medical Education Resources designates this live activity for a maximum of 13.0 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Commercial Support
Various medical companies have been invited to exhibit at this course. Full disclosure of financial and other support will be disclosed in the course syllabus materials.

Disclosure Policy
Medical Education Resources insures balance, independence, objectivity, and scientific rigor in all of its educational activities. In accordance with this policy, MER identifies conflicts of interest with its instructors, content managers, and other individuals who are in a position to control the content of an activity. Conflicts are resolved by MER to ensure that all scientific research referred to, reported, or used in a CME activity conforms to the generally accepted standards of experimental design, data collection, and analysis. MER is committed to providing its learners with high-quality CME activities that promote improvements or quality in health care and not the business interest of a commercial interest.

Call For Abstracts
A select number of abstracts will be presented as Free Papers or E-Posters at ISDS. Submit your research for consideration in one the following categories:

ABSTRACT CATEGORIES
- EOS and AIS
- Adult Deformity
- Aging Spine
- Cervical Deformity
- Neuromuscular Deformity
- Kyphosis
- Spondylolisthesis
- Complications
- Basic Science/Genetics
- Other

DATES AND DEADLINES
Abstract Submission Deadline: September 16, 2019
Authors Notified: October 7, 2019
Presenter Registration Deadline: November 8, 2019

Submit your title, authors, and abstract text as a one-page Word attachment and email to klaney@broad-water.com.

Joint Providership
This program is jointly provided by Medical Education Resources, Inc. and BroadWater, LLC.

December 6–7, 2019 | New York, NY | 5
Registration

Registration Fees

<table>
<thead>
<tr>
<th>Group</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgeons</td>
<td>$845</td>
</tr>
<tr>
<td>Residents, Fellows, PTs, Nurses, and Other</td>
<td>$645</td>
</tr>
<tr>
<td>Allied Health Professionals</td>
<td></td>
</tr>
</tbody>
</table>

Registration includes all program sessions, course materials, and meals listed in program.

**Late Registration Fee:** $50 (after November 8)

**Registration Procedure**

Register early as the space may fill rapidly. Individuals who register after the course is full will be placed on a wait list and contacted if space becomes available.

**Refund Policy**

A full refund will be provided, less a $100 administrative fee, dependent upon written notice being received by November 8, 2019. Refunds will not be made after this date. Substitutions are allowed at any time but must be submitted in writing.

**Cancellation Policy**

In the unlikely event of insufficient enrollment, we reserve the right to cancel the course up to 21 days prior. Registrants will be notified by certified mail and registration fees will be refunded. Airline and other costs incurred by the registrant are the responsibility of the registrant and will not be refunded.

**Attendance**

The course chairmen reserve the right to refuse admission to anyone whose presence is considered to be incompatible with the course objectives.

**Language**

The program will be presented in English.

---

**“Great to hear directly from the experts.”**

— PAST ATTENDEE

---

For additional information please contact:

**BroadWater**

301 South County Farm
Suite L
Wheaton, IL USA
www.broad-water.com

T: 630-681-1040
F: 1-630-682-5811
E: klaney@broad-water.com
Location & Accommodations

Course Location
The course will be held at Convene, a modern and sophisticated event venue in West Midtown.

Convene
117 West 46th Street
New York, NY 10036

Hotel Accommodations
Hotel accommodations for the meeting are offered at The Muse New York, a boutique hotel just steps from Convene, and with convenient access to all that Midtown has to offer.

The Muse New York, a Kimpton Hotel
130 West 46th Street
New York, NY 10036

Amenities
> Spacious accommodations with luxury linens and bath products
> Complimentary morning coffee and tea until 9:00 am each day
> Complimentary wine hour from 5:00 – 6:00 pm each day
> Complimentary wi-fi
> Yoga mat in every room
> 24-hour fitness center

Room Rate
$459.00 (plus tax) for single or double occupancy

Deadline
It is recommended that participants book their hotel rooms as soon as possible, as space will fill rapidly. Reservations at the group rate may not be available after November 14, 2019 or if the room block is full.

Reservations Policies
A valid credit card number is required to guarantee each hotel reservation. Reservations can be cancelled without penalty at least 72 hours prior to the scheduled arrival.

Reservations Procedure
Click here to make your hotel reservations. Or call 844-861-5509 and ask to book a room for the BroadWater block at The Muse New York with group code ACL.