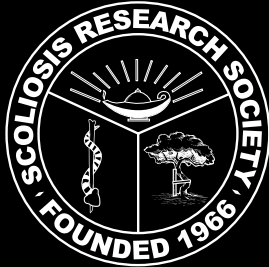


The Scoliosis Research Society presents

# Current Concepts & Hands-On Course



**MAY 8-11, 2019**

**ISTANBUL, TURKEY**

ISTANBUL MARRIOTT HOTEL ASIA

CENTER OF ADVANCED SIMULATION AND EDUCATION (CASE) - HANDS-ON COURSE ONLY

## Final Program



[www.srs.org](http://www.srs.org) • [www.srs.org/ccsd0519](http://www.srs.org/ccsd0519)

# Corporate Support

We are pleased to acknowledge and thank the companies that provided financial and in-kind support to SRS for this Current Concepts & Hands-On Course.

## Current Concepts in Spine Deformity Course Supporters

### Education Patron

Medtronic

### Education Supporter

DePuy Synthes  
K2M, now a part of Stryker  
Norm Medical

## Spine Deformity Solutions Course Supporters

Medtronic  
Globus Medical

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## Future SRS Meetings

### Worldwide Courses

Barcelona, Spain  
In conjunction with SILACO-GEER  
May 29, 2019

### Spine Deformity Solutions: A Hands-On Course

November 1-3, 2019 – Bangkok, Thailand

### Current Concepts in Spine Deformity

December 13-14, 2019 – Tokyo, Japan

### International Meeting on Advanced Spine Techniques (IMAST)

#### 26<sup>th</sup> IMAST

July 17-20, 2019 – Amsterdam, the Netherlands

#### 27<sup>th</sup> IMAST

April 1-4, 2020 – Athens, Greece

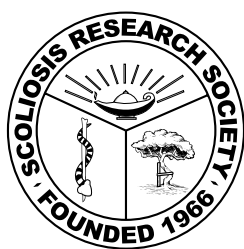
### Annual Meeting

#### 54<sup>th</sup> Annual Meeting

September 18-21, 2019 – Montréal, Canada

#### 55<sup>th</sup> Annual Meeting

September 9-12, 2020 – Phoenix, Arizona



### Scoliosis Research Society

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# Planning Committee

## **SRS President 2018-2019**

Peter O. Newton, MD

## **Worldwide Course Committee Chair**

Benny T. Dahl, MD, PhD, DMSci

## **Current Concepts Course Chairs**

Kariman Abelin-Genevois, MD, PhD

Alpaslan Senkoylu, MD

## **Hands-On Course Chairs**

Ahmet Alanay, MD

Haluk R. Berk, MD

## **Faculty**

René Castelein, MD, PhD

Kenneth MC Cheung, MD

David H. Clements, III, MD

John R. Dimar, II, MD

Meric Enercan, MD

Munish C. Gupta, MD

Yong Hai, MD

Azmi Hamzaoglu, MD

Steven M. Mardjetko, MD, FAAP

Hossein Mehdian, MD, FRCS(Ed)

Ibrahim Obeid, MD

Francisco Javier Sanchez Perez-Grueso, Sr., MD

Pierre Roussouly, MD

Michael Ruf, MD

Christopher I. Shaffrey, Sr., MD

Muharrem Yazici, MD

Caglar Yilgor, MD

# General Meeting Information

## Venue Information

### Istanbul Marriott Hotel Asia

Kayisdagi Caddesi No 3, Atasehir  
Istanbul, Turkey 34750  
marriottistanbulasia.com

### Center of Advanced Simulation and Education (CASE) - Hands-On Course Only

Kerem Aydinlar Kampusu Icerenkoy Mahallesi  
Kayisdagi Caddesi No: 32  
Atasehir, Istanbul, Turkey 34752

## Admission To Sessions

Official name badges will be required for admission to all sessions. All course attendees will receive a name badge with their registration materials. Name badges should be worn at all time while inside the Istanbul Marriott Hotel Asia meeting space, as badges will be used to control access to sessions and activities. Attendees are cautioned against wearing their name badges while away from the venue, as badges draw unwanted attention to your status as visitors to the city.

## Attire

Business casual (polo or dress shirts, sports coats) is appropriate for the meeting sessions; ties are not required. Casual attire and scrubs are appropriate for the Hands-On Course. Scrubs and disposables will be provided at the lab.

## Cell Phone Protocol

Please ensure that cell phone ringers, pagers and electronic devices are silenced or turned off during all sessions.

## Emergency & First Aid

The Istanbul Marriott Hotel Asia and Acibadem University Center of Advanced Simulation and Education (CASE) are fully prepared to handle emergency requests and first aid. Contact a SRS staff person for support. Remember to note all emergency exits within the venue.

## Evaluations

Please take time to complete the online evaluation forms. Evaluations will need to be completed in order to receive EACCME credit. Your input and comments are also essential in planning future Current Concepts and Hands-On Courses.

## Presentations

PDF versions of the PowerPoint presentations and handouts are available to view and download from the CCSD meeting website, [www.srs.org/ccsd0519](http://www.srs.org/ccsd0519). To access the files, you will need to login with your SRS ID number and last name.

## Wireless Internet

There will be Wireless Internet access for the entire meeting space starting 8:00 on May 8 and ending 13:00 on May 10.

## Language

English will be the official language of the SRS Current Concepts & Hands-On Course.

## Lost & Found

Please feel free to stop by the SRS Registration Desk if you have lost or found an item during the course.

## Registration Desk

Location: Yakut (Exhibit Hall)

Wednesday, May 8	11:30 – 18:00
Thursday, May 9	6:30 – 16:00
Friday, May 10	6:30 – 11:00

## Smoking Policy

Smoking is not permitted during any meeting activity or event.

## Special Needs

If you have any health issues for which you may require special accommodations or assistance, please notify the SRS staff at the Registration Desk. We will make every effort to accommodate any special needs.

## Video Recording Prohibited

SRS does not allow personal video recording of the presentations of any kind. SRS holds the right to confiscate any and all recordings taken of any of the presentations.

## Welcome Reception

Wednesday, May 8, 2019  
18:35-19:30  
Exhibit Hall (Yakut) at the Istanbul Marriott Hotel Asia

All registered delegates are invited to attend the Welcome Reception on Wednesday, May 8. The reception will be hosted in the Exhibit Hall at the Istanbul Marriott Hotel Asia, where beverages and light hors d'oeuvres will be served. There is no charge for registered delegates, though your name badge is required for entrance. Dress for the Welcome Reception is business casual.

## Electricity

Turkey operates on 220 volts compared to the standard 120 volts in the United States.

## Time Zone

Istanbul is in TRT (Turkey Time) which is three (3) hours ahead of Greenwich Mean Time.

# EACCME Information

## Meeting Description

The Current Concepts & Hands-On Course is a forum for the realization of the Society's mission and goals, the improvement of patient care for those with spinal deformities. The course will be an intimate setting with a low attendee to faculty ratio. Topics include Foundation Knowledge, Early Onset Deformity, AIS, Neuromuscular Deformity, Adult Deformity, Kyphosis and Complications. The course will also include a hands-on skills training component limited to 24 participants.

## Learning Objectives

Upon completion of this course, participants should be able to:

- Describe normal growth, maturation and alignment of the spine
- Explain natural history and management of different deformity types including kyphosis, early onset, AIS, neuromuscular, cervical, adult and acquired
- Define how to insert implants to the spine and ilium
- Demonstrate different types of exposures and osteotomies to spinal column

## Target Audience

Residents, fellows and orthopaedic and neurosurgeons who have an interest and are involved in spinal deformity management and treatment.

## Accreditation Statement

The **Current Concepts & Hands-On Course, Istanbul, Turkey, 08/05/2019-11/05/2019** has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) with **27** European CME Credits (ECMEC®s). Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.

Through an agreement between the Union Européenne des Médecins Spécialistes and the American Medical Association, physicians may convert EACCME® credits to an equivalent number of *AMA PRA Category 1 Credits™*. Information on the process to convert EACCME® credit to AMA credit can be found at [www.ama-assn.org/education/earn-credit-participation-international-activities](http://www.ama-assn.org/education/earn-credit-participation-international-activities).

## Claiming Credit

Attendees can claim their EACCME certificates exclusively online at <https://www.srs.org/ccsd0519/eaccme-evaluation> following the submission of their course evaluations.

## Disclosure of Conflict of Interest

It is the policy of SRS to insure balance, independence, objectivity and scientific rigor in all of their educational activities. In accordance with this policy, SRS identifies conflicts of interest with instructors, content managers and other individuals who are in a position to control the content of an activity. Conflicts are resolved by SRS 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.

## FDA Statement (United States)

Some drugs and medical devices demonstrated during this course have limited FDA labeling and marketing clearance. It is the responsibility of the physician to be aware of drug or device FDA labeling and marketing status.

## Insurance/Liabilities and Disclaimer

SRS will not be held liable for personal injuries or for loss or damage to property incurred by participants at the Current Concepts & Hands-On Course. Participants are encouraged to take out insurance to cover loss incurred in the event of cancellation, medical expenses or damage to or loss of personal effects when traveling outside of their own countries. SRS cannot be held liable for any hindrance or disruption of course proceedings arising from natural, political, social or economic events or other unforeseen incidents beyond its control. Registration of a participant implies acceptance of this condition. The materials presented at this activity are made available for educational purposes only. The material is not intended to represent the only, nor necessarily best, methods or procedures appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement or opinion of the faculty that may be helpful to others who face similar situations. SRS disclaims any and all liability for injury or other damages resulting to any individual attending the Current Concepts & Hands-On Course meeting and for all claims that may arise out of the use of techniques demonstrated therein by such individuals, whether these claims shall be asserted by a physician or any other person.

# Conflict of Interest Disclosures

SRS Board of Directors	Country	Financial Disclosures
Todd J. Albert, MD	USA	Alan L. and Jacqueline B. Stuart Spine Research Center (a); ASIP (c); Biomerix (c); Bonovo Orthopedics Inc. (g); Crosstrees Medical (c); DePuy Synthes (g); Facet Link (b); Gentis (b,e); InVivo Therapeutics (c); Invuity (c); JP Medical Publishers (g); NuVasive (b); Paradigm Spine (c); Pioneer (c); PCORI (a); PMIG (c); Saunders/Mosby-Elsevier (g); Spinicity (c); Thieme Publishing (g); United Health Care (e); Vital 5 (c); Zimmer Biomet (g)
Laurel C. Blakemore, MD	USA	K2M (a,b,g); NuVasive (d)
J. Abbott Byrd, III, MD	USA	Surgitech (c); Zimmer Biomet (g)
Kenneth MC Cheung, MD	People's Republic of China	AO Spine (a); Avalon Spinecare (a); Medtronic (d); NuVasive (d); OrthoSmart (g)
Marinus de Kleuver, MD, PhD	Netherlands	Medtronic (d)
John R. Dimar, II, MD	USA	DePuy Synthes (b,c); Medtronic (b,g); Stryker Spine (b,g)
Ron El-Hawary, MD	Canada	Apifix Ltd. (b,e); DePuy Synthes (a,b); Medtronic (a,b); Wishbone Medical (b)
Lawrence L. Haber, MD	USA	OrthoPediatrics (b,c,g)
Serena S. Hu, MD	USA	NuVasive (g); OnPoint (g)
Lori A. Karol, MD	USA	Elsevier Publishing (g)
Peter O. Newton, MD	USA	Alphatec Spine (a); DePuy Synthes (a,g); Electrocore (c); EOS Imaging (a); K2M (a,b,g); Mazor Robotics (a); Medtronic (a); NuVasive (a); OrthoPediatrics (a); Thieme Publishing (g)
Ferran Pellisé, MD, PhD	Spain	AO Spine (a,e); DePuy Synthes (a,b); Medtronic (a)
James O. Sanders, MD	USA	Greensun (c); Tether Implant Corporation (c)
Rajiv Sethi, MD	USA	K2M (d); Mighty Oak Medical (e); NuVasive (a,d); Orthofix (g)
Suken A. Shah, MD	USA	DePuy Synthes (b,e,g); Globus Medical (g); K2M (g); NuVasive (b)
Paul D. Sponseller, MD	USA	DePuy Synthes (a,g); Globus Medical (g); OrthoPediatrics (g)
Muharrem Yazici, MD	Turkey	No Relationships

Worldwide Course Committee Chair	Country	Financial Disclosures
Benny T. Dahl, MD, PhD, DMSci	USA	K2M (a,d,e)

Current Concepts Course Chairs	Country	Financial Disclosures
Kariman Abelin-Genevois, MD, PhD	France	Implanet (a); Medicea (b); Medtronic (f)
Alpaslan Senkoylu, MD	Turkey	No Relationships

Hands-On Course Chairs	Country	Financial Disclosures
Ahmet Alanay, MD	Turkey	DePuy Synthes (a); Medtronic (a)
Haluk R. Berk, MD	Turkey	No Relationships

## Disclosure Key:

a – grants/research support; b – consultant; c – stock/shareholder (self-managed); d – speaker's bureau; e – advisory board or panel (industry); f – employee, salary (commercial interest); g – other financial or material support (royalties, patents, etc.)

# Conflict of Interest Disclosures

Faculty (if not listed previously)	Country	Financial Disclosures
René Castelein, MD, PhD	France	K2M (a,d)
David H. Clements, III, MD	USA	DePuy Synthes (a,b,d); NuVasive (a,b,d,g)
Meric Enercan, MD	Turkey	No Relationships
Munish C. Gupta, MD	USA	AO Spine (a); DePuy Synthes (b,e,g); Innomed (g); Johnson & Johnson (c); Medtronic (b,e); OMEGA (a); perForm Biologics (b,c)
Yong Hai, MD	People's Republic of China	No Relationships
Azmi Hamzaoglu, MD	Turkey	Medtronic (b)
Steven M. Mardjetko, MD, FAAP	USA	SpineCraft (b,c,e,g)
Hossein Mehdian, MD, FRCS(Ed)	United Kingdom	No Relationships
Ibrahim Obeid, MD	France	Alphatec Spine (g); Clariance (g); DePuy Synthes (a,b); Medtronic (b); SpineArt (g)
Francisco Javier Sanchez Perez-Grueso, Sr., MD	Spain	DePuy Synthes (a); K2M (b)
Pierre Roussouly, MD	France	SMAIO (b); Sylorus Robotics (c)
Michael Ruf, MD	Germany	No Relationships
Christopher I. Shaffrey, Sr., MD	USA	EOS Imaging (b); Medtronic (b,g); NuVasive (b,c,g); Zimmer Biomet (g)
Caglar Yilgor, MD	Turkey	No Relationships

CME Reviewers	Country	Financial Disclosures
Samuel K. Cho, MD	USA	Corentec (b); Globus Medical (b); Zimmer Biomet (b)
Woojin Cho, MD	USA	No Relationships
Ryan C. Goodwin, MD	USA	K2M (b); OrthoPediatics (b); Stryker Spine (b)

Staff	Country	Financial Disclosures
Lily Atonio	USA	No Relationships
Alysha Chapman, CNP	USA	No Relationships
Ann D'Arienzo, CMP	USA	No Relationships
Tressa Goulding, CAE	USA	No Relationships
Jenifer Heller	USA	No Relationships
Courtney Kissinger	USA	No Relationships
Lauren Kritter	USA	No Relationships
Ashtin Neuschaefer	USA	No Relationships
Shawn Storey	USA	No Relationships

## Disclosure Key:

a – grants/research support; b – consultant; c – stock/shareholder (self-managed); d – speaker's bureau; e – advisory board or panel (industry); f – employee, salary (commercial interest); g – other financial or material support (royalties, patents, etc.)



# Floorplan

## Istanbul Marriott Hotel Asia, Floor 1

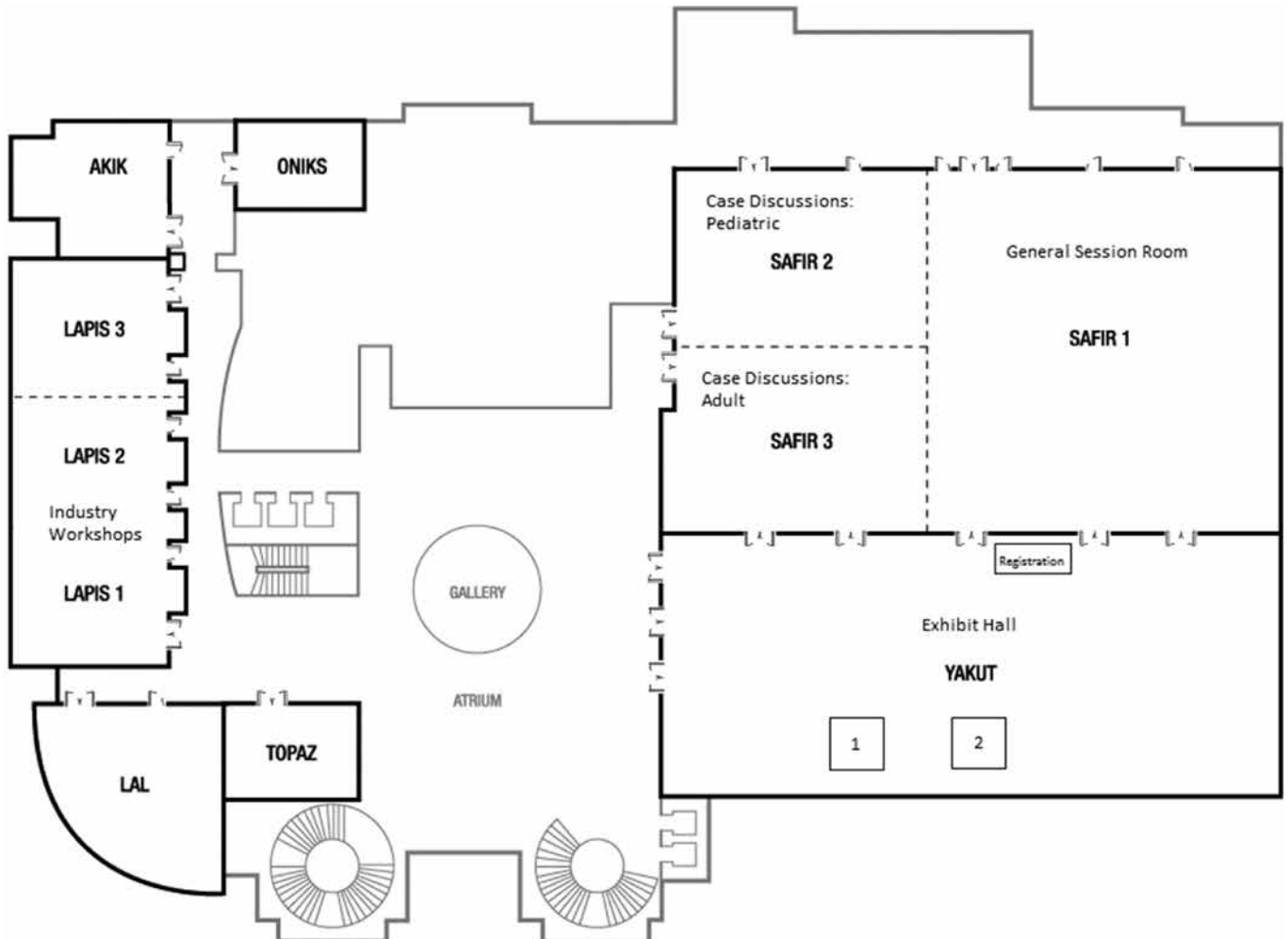
Safir 1 – General Session Room

Safir 2 – Case Discussions: Pediatric

Safir 3 – Case Discussions: Adult

Yakut – Exhibit Hall and Registration

Lapis 1 & 2 – Industry Hands-on Workshops



# Exhibits & Workshops

## Exhibit Hall Hours\*

Wednesday, May 8	13:00 – 19:30
Thursday, May 9	7:30 – 16:00
Friday, May 10	7:30 – 11:00

## EXHIBITORS

### Medtronic International Trading Sarl – Booth #1

Route du Molliau 31, Case postale  
1131 Tolochenaz, Switzerland  
www.medtronic.eu

As a global leader in medical technology, services and solutions, Medtronic improves the lives and health of millions of people each year. We use our deep clinical, therapeutic and economic expertise to address the complex challenges faced by healthcare systems today. Let's take healthcare Further, Together. Learn more at Medtronic.eu

### Norm Medical, Turkey – Booth #2

İvedik Organize Sanayi Bölgesi,  
1468. Cad. No: 193, 06378  
Yenimahalle, Ankara, Turkey  
www.normltd.net

Norm Company was established in Ankara in 2006. NORM, which have a scientific and technological infrastructure and human resources in terms of approval international standards, strong and high production capacity, is one of the leading manufacturer Company of the Turkish Medical Industry. NORM exports spinal, trauma implant and surgical instrument to the world market.

Norm Company, who is aware of the human life the world's most important values, develops products according to the market needs, employees' skills and knowledge after the result of R & D activities and keeps continue to development of the innovative products that will carry the human life to the future.

Norm Company extend its world class implants, instrumentation, and service by partnering with researchers and educators to advance the science and knowledge of spine and trauma. Norm constantly in the pursuit of better patient care and understand that speed is critical because life cannot wait.

Our mission is to provide higher customer loyalty and patient satisfaction with high technology, creative products and service. Our vision is to be one of the world's most admired, fastest growing medical company.

## Hands-on Workshops\*

### Wednesday, May 8 – 17:35-18:35

K2M, now a part of Stryker – Lapis 1 & 2  
3D Evaluation of the AIS Patient  
*René Castelein, MD, PhD*

### Thursday, May 9 – 12:15-13:15

Medtronic – Lapis 1 & 2  
Innovations in Deformity Driving Better Outcomes  
From AVBT to Immersive Education with Virtual Reality  
*Ahmet Alanay, MD and Andrew James Bowey, FRCS (Tr&Orth)*

\*Denotes Non-CME Session

# Current Concepts in Spine Deformity Program

Istanbul Marriott Hotel Asia • May 8-10, 2019

## Wednesday, May 8, 2019

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11:30-18:00	Registration Open
13:00-19:30	Exhibits Open
12:30-12:45	Introduction of SRS – Muharrem Yazici, MD - SRS Vice President
12:45-13:00	Pre-Course Quiz
13:00-15:00	<b>Session 1: Foundation Knowledge</b> Moderators: <i>Kariman Abelin-Genevois, MD, PhD &amp; Alpaslan Senkoylu, MD</i>
13:00-13:15	Growth of the Spine <i>René Castelein, MD, PhD</i>
13:15-13:35	Assessment of Maturation <i>Kenneth MC Cheung, MD</i>
13:35-13:45	Discussion
13:45-14:00	Bone Healing, Fusion Biology and Prerequisites on How to Achieve a Solid Fusion <i>Steven M. Mardjetko, MD, FAAP</i>
14:00-14:20	Alignment of the Spine <i>Pierre Roussouly, MD</i>
14:20-14:30	Discussion
14:30-15:00	Case Based Discussion: Alignment of the Spine <i>Munish Gupta, MD</i>
15:00-15:30	Refreshment Break & Exhibit Viewing*
15:30-17:30	<b>Session 2: Early Onset Deformity</b> Moderators: <i>Ahmet Alanay, MD &amp; Haluk Berk, MD</i>
15:30-15:45	Definition and Classification of EOD <i>Muharrem Yazici, MD</i>
15:45-16:00	Casting - Indications and Techniques <i>Francisco Javier Sanchez Perez-Grueso, MD</i>
16:00-16:15	Overview of Growth Friendly Surgical Techniques <i>Yong Hai, MD</i>
16:15-16:25	Discussion
16:25-17:00	Case Based Discussion: Decision Making - Conservative vs Surgery <i>Steven M. Mardjetko, MD, FAAP</i>
17:00-17:30	Case Based Discussion: Congenital Scoliosis <i>Azmi Hamzaoglu, MD</i>
17:35-18:35	<b>Industry Hands-On Workshop* - Lapis 1 &amp; 2</b> 3D Evaluation of the AIS Patient <i>René Castelein, MD, PhD</i> <i>This workshop is programmed by K2M, now a part of Stryker. (See page 8 for more information.)</i>
18:35-19:30	<b>Welcome Reception*</b> <i>Exhibit Hall</i>

\*Denotes Non-CME Session

# Current Concepts in Spine Deformity Program

**Thursday, May 9, 2019**

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06:30-16:00	Registration Open
07:30-16:00	Exhibits Open
07:00-08:00	<b>Concurrent Case Based Discussions with Breakfast (Pediatric &amp; Adult)</b> Moderators: <i>Ibrahim Obeid, MD &amp; Francisco Javier Sanchez Perez-Grueso, MD</i>
07:00-08:00	Pediatric Deformity – Safir 2 <i>Ibrahim Obeid, MD (Moderator); David Clements, III, MD; Alpaslan Senkoylu, MD; Michael Ruf, MD</i>
07:00-08:00	Adult Deformity – Safir 3 <i>Francisco Javier Sanchez Perez-Grueso, MD (Moderator); Christopher I. Shaffrey, MD; Caglar Yilgor, MD; Hossein Mehdian, MD, FRCS(Ed)</i>
08:05-10:05	<b>Session 3: AIS</b> Moderators: <i>Azmi Hamzaoglu, MD &amp; Michael Ruf, MD</i>
08:05-08:20	Etiology and Natural History of AIS <i>René Castelein, MD, PhD</i>
08:20-08:50	Case Based Discussion: Classification <i>Kariman Abelin-Genevois, MD, PhD</i>
08:50-09:00	Brace Treatment from Start to Wean Off – Natural History <i>Caglar Yilgor, MD</i>
09:00-09:15	Surgical Indication, Pre-op Planning in AIS and Determining Fusion Levels <i>Muharrem Yazici, MD</i>
09:15-09:25	Discussion
09:25-10:05	Case Based Discussion: Pre-op Planning, Shoulder Imbalance, Sagittal Alignment and PJK <i>Ibrahim Obeid, MD</i>
10:05-10:25	Refreshment Break & Exhibit Viewing*
10:25-12:05	<b>Session 4: AIS</b> Moderators: <i>Steven M. Mardjetko, MD, FAAP &amp; Pierre Roussouly, MD</i>
10:25-10:40	Prevention and Management of Complications in AIS Surgery (Blood Management, Neuro-monitoring & Prophylaxis) <i>Meric Enercan, MD</i>
10:40-10:55	Adding on in AIS: Long Term Results and Consequences <i>Hossein Mehdian, MD, FRCS(Ed)</i>
10:55-11:10	HRQoL: How to Implement in Daily Practice <i>Haluk Berk, MD</i>
11:10-11:20	Discussion
11:20-12:05	Case Based Discussion: Management of Complications in AIS – Best Practices <i>Caglar Yilgor, MD</i>
12:05-13:15	Lunch Break*
12:15-13:15	<b>Industry Hands-On Workshop* - Lapis 1 &amp; 2</b> Innovations in Deformity Driving Better Outcomes From AVBT to Immersive Education with Virtual Reality <i>Ahmet Alanay, MD and Andrew James Bowey, FRCS (Tr&amp;Orth)</i> <i>This workshop is programmed by Medtronic. (See page 8 for more information.)</i>

\*Denotes Non-CME Session

# Current Concepts in Spine Deformity Program

**Thursday, May 9, 2019**

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- 13:20-15:15     **Session 5: Neuromuscular and Cervical Deformity**  
Moderators: *Hossein Mehdiian, MD, FRCS(Ed) & David H. Clements, III, MD*
- 13:20-13:45     Decision Making and Preoperative Planning in CP Cases  
*Kariman Abelin-Genevois, MD, PhD*
- 13:45-13:50     Prevention and Management of Complications after Surgery in Neuromuscular Deformity  
*Francisco Javier Sanchez Perez-Grueso, MD*
- 13:50-14:00     Discussion
- 14:00-14:30     Case Based Discussion: Preoperative Planning in CP  
*Kariman Abelin-Genevois, MD, PhD*
- 14:30-14:45     Principles and Treatment of Cervical Deformity and Cervical Alignment  
*Christopher I. Shaffrey, MD*
- 14:45-15:15     Case Based Discussion: Cervical Deformity and Cervical Alignment  
*Hossein Mehdiian, MD, FRCS(Ed)*
- 15:15-15:35     Refreshment Break & Exhibit Viewing\*
- 15:35-17:30     **Session 6: Adult and Degenerative Spinal Deformity**  
Moderators: *René Castelein, MD, PhD & Ibrahim Obeid, MD*
- 15:35-15:50     Natural History and Etiology of Degenerative Deformity  
*Pierre Roussouly, MD*
- 15:50-16:05     Minimally Invasive Surgical Solutions in Degenerative Deformity  
*Christopher I. Shaffrey, MD*
- 16:05-16:15     Discussion
- 16:15-16:30     Revision Surgery for ASD: Pre-Operative Planning and Surgical Techniques  
*Munish Gupta, MD*
- 16:30-16:45     Osteotomy Types and their Indications in ASD  
*Azmi Hamzaoglu, MD*
- 16:45-17:00     How to Maximize Efficiency/Reduce Complication Rates  
*Ahmet Alanay, MD*
- 17:00-17:30     Case Based Discussion: ASD  
*Ibrahim Obeid, MD*
- 19:00-22:00     Faculty & Industry Dinner at Lacivert Restaurant\* (by invitation only)  
Participant free night out.

\*Denotes Non-CME Session

# Current Concepts in Spine Deformity Program

**Friday, May 10, 2019**

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06:30-11:00	Registration Open
07:30-11:00	Exhibits Open
07:00-08:00	<b>Concurrent Case Based Discussions with Breakfast (Pediatric &amp; Adult)</b> Moderators: <i>Muharrem Yazici, MD &amp; Ahmet Alanay, MD</i>
07:00-08:00	Pediatric Deformity – Safir 2 <i>Muharrem Yazici, MD (Moderator); René Castelein, MD, PhD; Meric Enercan, MD; Yong Hai, MD</i>
07:00-08:00	Adult Deformity – Safir 3 <i>Ahmet Alanay, MD (Moderator); Kenneth MC Cheung, MD; Pierre Roussouly, MD; Munish Gupta, MD</i>
08:05-10:20	<b>Session 7: Kyphosis and Spondylolisthesis</b> Moderators: <i>Munish Gupta, MD &amp; Meric Enercan, MD</i>
08:05-08:20	Scheuermann's Kyphosis: Surgical Indications and Principles of Surgical Treatment <i>John R. Dimar, II, MD</i>
08:20-08:35	Determination of Fusion Levels in Scheuermann's Kyphosis & How to Prevent Junctional Failures <i>Ahmet Alanay, MD</i>
08:35-08:45	Discussion
08:45-09:00	Case Based Discussion: Scheuermann's Kyphosis <i>David H. Clements, III, MD</i>
09:00-09:10	Spondylolysis - Management in Athletes <i>Haluk Berk, MD</i>
09:10-09:30	Classification of Spondylolisthesis and Practical Usage for Decision Making <i>Michael Ruf, MD</i>
09:30-09:40	Discussion
09:40-10:20	Case Based Discussion: HG Dysplastic Spondylolisthesis <i>John R. Dimar, II, MD</i>
10:20-10:40	Refreshment Break & Exhibit Viewing*
10:40-11:40	<b>Session 8: Acquired Deformity</b> Moderators: <i>Christopher I. Shaffrey, MD &amp; Yong Hai, MD</i>
10:40-10:50	Post-Tuberculous (TB) Kyphosis - Prevention <i>Kenneth MC Cheung, MD</i>
10:50-11:05	Case Based Discussion: Post-TB Kyphosis - Management <i>Yong Hai, MD</i>
11:05-11:15	Post Traumatic Kyphosis <i>Alpaslan Senkoylu, MD</i>
11:15-11:40	Case Based Discussion: Deformity with Neoplasm <i>John R. Dimar, II, MD</i>
11:40-11:50	Final Remarks & Post Course Quiz <i>Alpaslan Senkoylu, MD</i>
11:50-12:00	Boxed Lunches Available for Those Attending the Hands-On Course*
12:00-12:50	Transfer to CASE for Those Attending the Hands-On Course* (Advance registration required)

\*Denotes Non-CME Session

# Notes

## Session 1: Foundation Knowledge: Pediatrics

What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## Session 2: Early Onset Deformity

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What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## Thursday Case Based Discussion (Pediatric or Adult)

What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## Session 3: AIS

What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## Session 4: AIS

What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## Session 5: Neuromuscular and Cervical Deformity

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What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## **Session 6: Adult and Degenerative Spinal Deformity**

What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## **Friday Case Based Discussion (Pediatric or Adult)**

What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## **Session 7: Kyphosis and Spondylolisthesis**

What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Notes

## **Session 8: Acquired Deformity**

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What did you learn during this session?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# **Spine Deformity Solutions: A Hands-On Course**

**Center of Advanced Simulation and Education (CASE) - Acibadem University**

May 10-11, 2019

Advance registration required.

Due to the nature of the course, there is a maximum number of participants and onsite registration is not available.

Registration for the Hands-On Course is indicated by a blue name badge.



# Spine Deformity Solutions: A Hands-On Course Program

## Friday, May 10, 2019

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- 12:00-12:50 All Hands-on course participants shuttle from the Istanbul Marriott Hotel Asia to CASE
- 13:00-13:30 **Session 1: Video Demonstrations**  
Moderator: *Kariman Abelin-Genevois, MD, PhD*
- 13:00-13:15 Hooks, Screws and Rod Bending  
*Kariman Abelin-Genevois, MD, PhD*
- 13:15-13:30 Lateral Lumbar Approach  
*Alpaslan Senkoylu, MD*
- 13:30-13:45 Proceed to lab and change clothes
- 13:45-15:15 **Lab 1, Rotation 1 – 6 Stations (3 Cadavers Prone, 3 Cadavers Lateral)**
- Group 1* Lab 1A: 3 Stations, Cadavers Prone, without C-arm  
Thoracic-Lumbar-Ilium; Insertion of Hooks and Pedicle Screws; Sacro-Pelvic Fixation. Open, anatomy based (Left side of the spine only)
- Group 2* Lab 1B: 3 Stations, Cadavers Lateral Decubitus with C-arm  
Lateral Lumbar Approach (from left side), S2Ala-Ilium Screws  
(Each group does two discs in the upper lumbar spine) (L1-2-3)
- 15:15-15:45 Refreshment Break\*
- 15:45-17:15 **Lab 1, Rotation 2 – 6 Stations (3 Cadavers Prone, 3 Cadavers Lateral)**
- Group 1* Lab 1B: 3 Stations, Cadavers Lateral Decubitus with C-arm  
Lateral Lumbar Approach (from right side), S2Ala-Ilium Screws  
(Each group does two discs in the lower lumbar spine) (L3-4-5)
- Group 2* Lab 1A: 3 Stations, Cadavers Prone, without C-arm  
Thoracic-Lumbar-Ilium; Insertion of Hooks & Pedicle Screws; Sacro-Pelvic Fixation. Open, anatomy based (Right side of the spine only)
- 17:15-17:30 Change clothes (lab staff to turn cadavers to prone position for Lab 2 on Saturday)
- 17:30-18:30 Shuttle provided to Istanbul Marriott Hotel Asia

\*Denotes Non-CME Session

# Spine Deformity Solutions: A Hands-On Course Program

**Saturday, May 11, 2019**

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07:30-08:00	Course participants shuttle to CASE
08:00-08:30	<b>Session 2: Video Demonstrations</b> Moderator: <i>John R. Dimar, II, MD</i>
08:00-08:15	Posterior Osteotomies (PSO, PCO) <i>John R. Dimar, II, MD</i>
08:15-08:30	VCR <i>Munish Gupta, MD</i>
08:30-08:45	Proceed to lab and change clothes
08:45-10:30	<b>Lab 2 – 6 Stations (All Cadavers Prone)</b> Posterior Column Osteotomies, Ponte multiple levels between L1-L5, Smith-Peterson Osteotomy (SPO), Pedicle Subtraction Osteotomy (PSO) in the Lumbar Spine (Osteotomy at L3) and Vertebral Column Resection (VCR) of the Thoracic Spine (at T9). Participants share left/right side.
10:30-10:45	Refreshment Break* (lab staff to turn cadavers to supine position for Lab 3)
10:45-11:00	<b>Session 3: Video Demonstration</b> Anterior Approaches to the Cervical Spine & Cervicothoracic Junction <i>Hossein Mehdian, MD, FRCS(Ed)</i>
11:00-11:15	Proceed to lab
11:15-12:30	<b>Lab 3 - 6 Stations (All Cadavers Supine)</b> Anterior Approaches to the Cervical Spine and Cervicothoracic Junction
12:30-12:45	Lunch Break* – Boxed Lunches Available (lab staff to turn cadavers to prone position for lab 4)
12:45-13:30	<b>Session 4: Video Demonstrations</b> Moderator: <i>Ahmet Alanay, MD</i>
12:45-13:00	Posterior Cervical Reconstruction from Occiput to T2 <i>Ibrahim Obeid, MD</i>
13:00-13:15	C7 Osteotomy <i>Christopher I. Shaffrey, MD</i>
13:15-13:30	Final Remarks and Open Q&A Wrap-up Session <i>Ahmet Alanay, MD</i>
13:30-13:45	Proceed to lab
13:45-15:15	<b>Lab 4 - 6 Stations (All Cadavers Prone)</b> Posterior Cervical Reconstruction from Occipital to T2 Deformity and Correction Techniques - C7PSO
15:15-15:30	Change clothes
15:30-16:30	Adjourn. Shuttle provided to Istanbul Marriott Hotel Asia

\*Denotes Non-CME Session

# Notes

## Spine Deformity Solutions: A Hands-On Course

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What did you learn?

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How will you include the new things you learned in your practice?

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What questions do you still have or wished you asked?

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# Spine Deformity Solutions: A Hands-On Course

## Attendee Lab Assignments

	Attendee		Lab Assignment						
	Name		Friday, May 10, 2019				Saturday, May 11, 2019		
	First	Last	13:45-15:15		15:45-17:15		08:45-10:30	11:15-12:30	13:45-15:15
			Lab 1A	Lab 1B	Lab 1A	Lab 1B	Lab 2	Lab 3	Lab 4
Group 1	Mohammad	Abdoh	Station 1			Station 4	Station 2	Station 6	Station 3
	Mustafa	Altuner	Station 1			Station 4	Station 2	Station 6	Station 3
	Ashraf	Anbar	Station 1			Station 4	Station 2	Station 6	Station 3
	Giedrius	Bernotavicius	Station 1			Station 4	Station 2	Station 6	Station 3
Group 2	Pepijn	Bisseling	Station 2			Station 5	Station 3	Station 1	Station 6
	Su-Hyun	Cho	Station 2			Station 5	Station 3	Station 1	Station 6
	Kyriakos	Giannoulis	Station 2			Station 5	Station 3	Station 1	Station 6
	Thyago	Guirelle	Station 2			Station 5	Station 3	Station 1	Station 6
Group 3	Sherwan	Hamawandi	Station 3			Station 6	Station 4	Station 2	Station 5
	Adelin	Ivanov	Station 3			Station 6	Station 4	Station 2	Station 5
	Mahir	Jasarevic	Station 3			Station 6	Station 4	Station 2	Station 5
	Rajandra Kumar	Karupiah	Station 3			Station 6	Station 4	Station 2	Station 5
Group 4	Mohamed	Khattab		Station 4	Station 1		Station 5	Station 3	Station 2
	Ona	Lapteva		Station 4	Station 1		Station 5	Station 3	Station 2
	Rajat	Mahajan		Station 4	Station 1		Station 5	Station 3	Station 2
	Eduardo	Nunez Carrasco		Station 4	Station 1		Station 5	Station 3	Station 2
Group 5	Jaytesh	Pillay		Station 5	Station 2		Station 6	Station 4	Station 1
	Konstantyn	Popsuyschapka		Station 5	Station 2		Station 6	Station 4	Station 1
	Wasim	Saleh		Station 5	Station 2		Station 6	Station 4	Station 1
	Murat	Sozbilen		Station 5	Station 2		Station 6	Station 4	Station 1
Group 6	Evgeni	Vlaev		Station 6	Station 3		Station 1	Station 5	Station 4
	Vasil	Yablanski		Station 6	Station 3		Station 1	Station 5	Station 4
	Mohamed	Zakzouk		Station 6	Station 3		Station 1	Station 5	Station 4
	Daniel	Zingor		Station 6	Station 3		Station 1	Station 5	Station 4

Center of Advanced Simulation and Education (CASE) - Acibadem University

# Lab Station Chart

## Faculty & Company Assignments

	Friday, May 10, 2019				Saturday, May 11, 2019		
	13:45-15:15 (Lab 1, Rotation 1)		15:45-17:15 (Lab 1, Rotation 2)		8:45-10:30	11:15-12:30	13:45-15:15
	Lab 1A	Lab 1B	Lab 1A	Lab 1B	Lab 2	Lab 3	Lab 4
	cadavers prone	cadavers lateral	cadavers prone	cadavers lateral	cadavers prone	cadavers supine	cadavers prone
* Lab 1 will have 2 rotations of participants	Thoracic-Lumbar-Ilium; Insertion of Hooks & Pedicle Screws; Sacro-Pelvic Fixation (Left side)	Lateral Lumbar Approach (from left side); S2Ala-Ilium Screws (L1-2-3) (With C-arm)	Thoracic-Lumbar-Ilium; Insertion of Hooks & Pedicle Screws; Sacro-Pelvic Fixation (Right side)	Lateral Lumbar Approach (from right side); S2Ala-Ilium Screws (L3-4-5) (With C-arm)	Posterior Column Osteotomies, Ponte multiple levels (L1-L5), SPO, PSO at L3 and VCR at T9	Anterior Approaches to the Cervical Spine & Cervicothoracic Junction	Posterior Cervical Reconstruction from Occipital to T2 Deformity & Correction Techniques - C7PSO
Station 1 <b>Medtronic</b>	Berk/Hai		Berk/Hai		Ruf/Enercan	Dimar/Hamzaoglu	Alanay/Mardjetko
Station 2 <b>Medtronic</b>	Yazici/Sanchez Perez-Grueso		Yazici/Sanchez Perez-Grueso		Senkoylu/Cheung	Alanay/Obeid	Shaffrey/Enercan
Station 3 <b>Medtronic</b>	Senkoylu/Obeid		Senkoylu/Castelein		Dimar/Yazici	Cheung/Enercan	Dimar/Ruf
Station 4 <b>Medtronic</b>		Cheung/Alanay		Cheung/Hamzaoglu	Berk/Sanchez Perez-Grueso	Castelein/Clements	Hamzaoglu
Station 5 <b>Globus Medical</b>		Abelin-Genevois/Clements		Abelin-Genevois/Shaffrey	Mehdian/Yilgor	Gupta/Mardjetko	Clements
Station 6 <b>Globus Medical</b>		Yilgor/Mardjetko		Yilgor/Gupta	Abelin-Genevois/Castelein	Shaffrey/Mehdian	Gupta

# About SRS

Founded in 1966, the Scoliosis Research Society is an organization of medical professionals and researchers dedicated to improving care for patients with spinal deformities. Over the years, it has grown from a group of 37 orthopaedic surgeons to an international organization of more than 1,300 health care professionals.

## Mission Statement

The purpose of the Scoliosis Research Society is to foster the optimal care of all patients with spinal deformities.

## Membership

SRS is open to orthopaedic surgeons, neurosurgeons, researchers and allied health professionals who have a practice that focuses on spinal deformity.

Active Fellowship (membership) requires the applicant to have fulfilled a five-year Candidate Fellowship and have a practice that is 20% or more in spinal deformity. Only Active Fellows may vote and hold elected offices within the Society.

Candidate Fellowship (membership) is open to orthopaedic surgeons, neurosurgeons and to researchers in all geographic locations who are willing to commit to a clinical practice which includes at least 20% spinal deformity. Candidate Fellows stay in that category for five years, during which time they must demonstrate their interest in spinal deformity and in the goals of the Scoliosis Research Society. Candidate Fellows may serve on SRS committees. After five years, those who complete all requirements are eligible to apply for Active Fellowship in the Society. Candidate Fellowship does not include the right to vote or hold office.

Associate Fellowship (membership) is for distinguished members of the medical profession including nurses, physician assistants, as well as orthopaedic surgeons, neurosurgeons, scientists, engineers and specialists who have made a significant contribution to scoliosis or related spinal deformities who do not wish to assume the full responsibilities of Active Fellowship. Associate Fellows may not vote or hold office, but may serve on committees.

Senior Candidate Fellowship (membership) is limited to senior surgeons, neurosurgeons and to non-physicians members of allied specialties. This candidacy is a path to SRS Active Fellowship. Senior surgeons have the opportunity to become Active Fellows of SRS in two years and not 5 years like the regular Candidate Fellowship track. They must have 20 years of experience (time spent with fellowship and training does not count), be a full professor, head of spine unit or chief of spine division, and clinical practice which includes 20% spinal deformity. After two years, those who complete all requirements are eligible to apply for Active Fellowship in the Society. Senior Candidate Fellowship does not include the right to vote or hold office.

Visit [www.srs.org/professionals/membership](http://www.srs.org/professionals/membership) for membership requirement details.

## Programs And Activities

SRS is focused primarily on education and research that include the Annual Meeting, the International Meeting on Advanced Spine Techniques (IMAST), Worldwide Conferences, a Global Outreach Program, the Research Education Outreach (REO) Fund which provides grants for spine deformity research, and development of patient education materials.

## Website Information

For the latest information on SRS meetings, programs, activities, and membership please visit [www.srs.org](http://www.srs.org). The SRS Website Committee works to ensure that the website information is accurate, accessible, and tailored for target audiences. Site content is varied and frequently uses graphics to stimulate ideas and interest. Content categories include information for medical professionals, patients/public, and SRS members. For more information, please visit the SRS website at [www.srs.org](http://www.srs.org).

## Society Office Staff

Tressa Goulding, CAE – Executive Director ([tgoulding@srs.org](mailto:tgoulding@srs.org))

Ashtin Neuschaefer – Director of Administration ([aneuschaefer@srs.org](mailto:aneuschaefer@srs.org))

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## Social Media

Twitter: [@srs\\_org](https://twitter.com/srs_org)

Facebook: [ScoliosisResearchSociety](https://www.facebook.com/ScoliosisResearchSociety)

Instagram: [@srs\\_org](https://www.instagram.com/srs_org)

LinkedIn: [ScoliosisResearchSociety](https://www.linkedin.com/company/ScoliosisResearchSociety)

## Scoliosis Research Society

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Milwaukee, WI 53202

Phone: 414-289-9107

Fax: 414-276-3349

[www.srs.org](http://www.srs.org)

# MEETING OUTLINE

<b>Wednesday, May 8, 2019</b>		
11:30-18:00	Registration Open	Exhibit Hall - Yakut
12:30-12:45	Introduction of SRS	Safir 1
13:00-15:00	Session 1: Foundation Knowledge	Safir 1
15:00-15:30	Refreshment Break & Exhibit Viewing	Exhibit Hall - Yakut
15:30-17:30	Session 2: Early Onset Deformity	Safir 1
17:35-18:35	Industry Hands-On Workshop*	Lapis 1 & 2
18:35-19:30	Welcome Reception*	Exhibit Hall - Yakut
<b>Thursday, May 9, 2019</b>		
06:30-16:00	Registration Open	Exhibit Hall - Yakut
07:00-08:00	Concurrent Case Based Discussions with Breakfast (Pediatric & Adult)	Safir 2 and Safir 3
08:05-10:05	Session 3: AIS	Safir 1
10:05-10:25	Refreshment Break & Exhibit Viewing	Exhibit Hall - Yakut
10:25-12:05	Session 4: AIS	Safir 1
12:05-13:15	Lunch Break	Exhibit Hall - Yakut
12:15-13:15	Industry Hands-On Workshop*	Lapis 1 & 2
13:20-15:15	Session 5: Neuromuscular and Cervical Deformity	Safir 1
15:15-15:35	Refreshment Break & Exhibit Viewing	Exhibit Hall - Yakut
15:35-17:30	Session 6: Adult and Degenerative Spinal Deformity	Safir 1
19:00-22:00	Faculty & Industry Dinner (by invitation only) / Participant free night out	Lacivert Restaurant
<b>Friday, May 10, 2019</b>		
06:30-11:00	Registration Open	Exhibit Hall - Yakut
07:00-08:00	Concurrent Case Based Discussions with Breakfast (Pediatric & Adult)	Safir 2 and Safir 3
08:05-10:20	Session 7: Kyphosis and Spondylolisthesis	Safir 1
10:20-10:40	Refreshment Break & Exhibit Viewing	Exhibit Hall - Yakut
10:40-11:40	Session 8: Acquired Deformity	Safir 1
11:40-11:50	Final Remarks & Post Course Quiz	Safir 1
11:50-12:00	Boxed Lunches Available for Those Attending the Hands-On Course	Exhibit Hall - Yakut
12:00-12:50	Transfer to CASE - Hands-On Course Attendees Only	Shuttle
13:00-13:30	Session 1: Video Demonstrations	Auditorium
13:30-13:45	Proceed to lab and change clothes	Locker Rooms
13:45-15:15	Lab 1, Rotation 1 – 6 Stations (3 Cadavers Prone, 3 Cadavers Lateral)	Lab
15:15-15:45	Refreshment Break	Lab Lobby
15:45-17:15	Lab 1, Rotation 2 – 6 Stations (3 Cadavers Prone, 3 Cadavers Lateral)	Lab
17:15-17:30	Change clothes (lab staff to turn cadavers to prone position)	Locker Rooms
17:30-18:30	Shuttle to Istanbul Marriot Hotel Asia	Shuttle
<b>Saturday, May 11, 2019</b>		
07:30-08:00	Shuttle to CASE	Shuttle
08:00-08:30	Session 2: Video Demonstrations	Auditorium
08:30-08:45	Proceed to lab and change clothes	Locker Rooms
08:45-10:30	Lab 2 – 6 Stations (All Cadavers Prone)	Lab
10:30-10:45	Refreshment Break (lab staff to turn cadavers to supine position)	Lab Lobby
10:45-11:00	Session 3: Video Demonstration	Auditorium
11:00-11:15	Proceed to lab	Lab Lobby
11:15-12:30	Lab 3 - 6 Stations (All Cadavers Supine)	Lab
12:30-12:45	Lunch Break (lab staff to turn cadavers to prone position)	Lab Lobby
12:45-13:30	Session 4: Video Demonstrations	Auditorium
13:30-13:45	Proceed to lab	Lab Lobby
13:45-15:15	Lab 4 - 6 Stations (All Cadavers Prone)	Lab
15:15-15:30	Change clothes	Locker Rooms
15:30-16:30	Adjourn and shuttle to Istanbul Marriot Hotel Asia	Shuttle
Meeting Outline Key: <span style="border: 1px solid black; display: inline-block; width: 1em; height: 1em; vertical-align: middle;"></span> = Current Concepts Course <span style="border: 1px solid black; display: inline-block; width: 1em; height: 1em; vertical-align: middle;"></span> = Hands-On Course *Denotes Non-CME Session		