

Scoliosis Research Society presents



IMAST 2019 amsterdam THE NETHERLANDS

26th International Meeting on
Advanced Spine Techniques

July 17-20, 2019 • Amsterdam, the Netherlands
RAI Amsterdam Convention Centre

www.srs.org



PRELIMINARY PROGRAM

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Michael Ruf, MD

*Sponsored by the Scoliosis
Research Society (SRS)*

WWW.SRS.ORG/IMAST2019

Join K2M at

IMAST 2019

for our educational workshops



SAVE THE DATES

THURSDAY, JULY 18 12:50–13:50

THURSDAY, JULY 18 18:00–19:00

FRIDAY, JULY 19 8:00–9:00

FRIDAY, JULY 19 12:15–13:15



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26TH IMAST VENUE

RAI Amsterdam Convention Centre
Europaplein 24, 101 GZ
Amsterdam, the Netherlands

DATES TO REMEMBER

| | |
|-------------------------------|--|
| Abstract Submission Deadline | February 1, 2019 |
| Registration Opens | February 15, 2019 |
| Housing Opens | February 15, 2019 |
| Abstract Notification | April 1, 2019 (<i>Annual Meeting</i> – April 15, 2019) |
| Advanced Housing Deadline | May 20, 2019 |
| Advance Registration Deadline | June 20, 2019 |
| Housing Deadline | June 18, 2018 |

FUTURE EDUCATIONAL EVENTS

SRS Current Concepts & Hands-On Course

May 8-11, 2019 – Istanbul Turkey

54th Annual Meeting

September 18-21, 2019 – Montréal, Canada

Spine Deformity Solutions: A Hands-On Course

November 1-3, 2019 – Bangkok, Thailand

27th IMAST

April 1-4, 2020 – Athens, Greece **NEW DATES**

WORLDWIDE COURSES

Querétaro, Mexico

In conjunction with Mexican College of Orthopedic Surgeons Annual Meeting

April 27-28, 2019

Barcelona, Spain

In conjunction with SILACO-GEER

May 29, 2019

CHAIR'S MESSAGE

Dear Attendee,

We would like to personally invite you to Amsterdam, the Netherlands for what promises to be an inspiring academic meeting. As a Society we continue to make incredible strides in the field of spinal deformities, and are excited to showcase these advancements at the 26th IMAST with our colleagues from around the world. We have made some changes to the content of IMAST to focus on innovation and emerging technologies. This has largely been due to great feedback we have received from our attendees.

To continue to provide a world-class meeting with the best educational value, we have streamlined the program, providing twin concurrent session tracks and general sessions to bring participants together each day. This year we will continue to incorporate opportunities for audience interaction within the sessions by allowing questions to be submitted electronically by the audience via the IMAST app.

We will also be introducing a new session format on Wednesday, July 17 from 19:00-20:30, called "Cases & Cocktails." Cases will be presented by faculty in four concurrent sessions. Each case presentation will be followed by small group discussions in which each table will debate the various treatment options and determine their action plan. It will be a great opportunity for attendees to discuss cases in small groups with an IMAST faculty member present at each table on innovative topics such as navigation, robotics and new approaches to common pathology. Libations will be served during this time so that all may enjoy a relaxed atmosphere during the discussions. Before the new session, we encourage delegates to take part in the Welcome Reception in the exhibit hall.

The program will also include the popular complication and debates series, instructional course lectures (ICLs), and roundtable case discussions; all led by an international and multidisciplinary faculty. We encourage all delegates to come and experience the interactive and innovative program we have planned. Be sure to plan to stay through Saturday, as we have a full morning of general sessions including a video session, the always popular, My Worst Complications and Lunch with the Experts.

We are both honored to serve as your IMAST Chair and Co-Chair this year. We want to thank those whose leadership and insights have created such a successful meeting, including Peter O. Newton, MD; Paul D. Sponseller, MD, MBA; Muharrem Yazici, MD; Todd J. Albert, MD; the IMAST Committee and SRS support staff.

With warmest personal regards,

A black and white handwritten signature of Henry F. Halm, MD. The signature is written in a cursive style.

Henry F. Halm, MD
IMAST Committee Chair

A black and white handwritten signature of Han Jo Kim, MD. The signature is written in a cursive style.

Han Jo Kim, MD
IMAST Committee Co-Chair

GENERAL MEETING INFORMATION

MEETING DESCRIPTION

IMAST gathers leading spine surgeons, innovative researchers and the most advanced spine technologies in an international forum. The IMAST program focuses on innovative and new methods/techniques for spinal pathology beyond deformity and is divided equally between adult deformity, pediatric deformity, degenerative lumbar and cervical pathology. Educational sessions include didactic presentations, panel discussions, papers and e-posters on current research, roundtable case discussions, debates, complication series and instructional course lectures, all lead by an international and multidisciplinary faculty.

IMAST is sponsored by the Scoliosis Research Society (SRS).

LEARNING OBJECTIVES

Upon completion of IMAST, participants should be able to:

- Analyze spinopelvic parameters and apply them to a specific pathology
- Choose the appropriate growth-friendly technique for the pathology present in growing spines
- Describe how and strategize when to employ emerging techniques such as guidance and robotics
- Demonstrate potential techniques to avoid proximal junctional kyphosis
- Identify extended indications for Cervical Disc Replacement
- Recognize and mitigate hazards of radiation to the patient and surgical team

TARGET AUDIENCE

Spine surgeons (orthopaedic and neurological surgeons), residents, fellows, nurses, nurse practitioners, physician assistants, engineers and company personnel.

ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the sponsorship of the Scoliosis Research Society (SRS). SRS is accredited by the ACCME to provide continuing medical education for physicians.

An application has been made to the EACCME® for CME accreditation of this event.

CREDIT DESIGNATION

The Scoliosis Research Society (SRS) designates this live activity for a maximum of 16.5 *AMA PRA Category 1 Credit(s)*™. Physicians

should claim only the credit commensurate with the extent of their participation in the activity.

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 Continuing Medical Education (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 or guests at IMAST including those participating in tours and social events. Participants and guests 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 IMAST proceedings arising from natural, political, social or economic events or other unforeseen incidents beyond its control. Registration of a participant or guest implies acceptance of this condition. The materials presented at this Continuing Medical Education (CME) 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 a scientific 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.

LANGUAGE

Presentations and course materials will be provided in English.

NO SMOKING POLICY

Smoking is not permitted during any IMAST activity or event.

ATTIRE

Business casual (polo or dress shirts, sport coats) are appropriate for IMAST sessions.

LOCATION INFORMATION

ABOUT AMSTERDAM

Amsterdam, the Netherlands' capital city, has been a center of creativity and culture for centuries. With its elaborate canal system, picturesque historic houses, and parked bikes everywhere, the city center looks like a modern day painting. Amsterdam is packed with cultural, historical and architectural delights. With a rich history in art, Amsterdam is home to many world renowned museums and cultural attractions. Amsterdam also has a global gastronomic scene worth exploring. From authentic Dutch fare to award-winning Japanese food, organic-focused fusion cuisine, and Michelin-star French dishes, there is truly something for everyone in Amsterdam.

The IMAST meeting venue and headquarter hotels are located 4 km/2.5 miles from the city center. With the newly opened North/South Metro line, getting to the city center takes just ten minutes, making it easy for meeting attendees to explore this vibrant and remarkable city.

AMSTERDAM AIRPORT SCHIPHOL (AMS)

Amsterdam Airport Schiphol is located 13 km/8 miles from the Amsterdam city center and is a quick eight minute train ride to the RAI Amsterdam Convention Centre and IMAST headquarter hotels. It is the fourth largest European airport in terms of passenger numbers with 99 scheduled airlines operating flights to 317 destinations in 98 countries worldwide making it one of the most conveniently accessible airports in Europe.

PASSPORTS & VISAS

Most visitors must have a passport to travel to the Netherlands; some visitors may also be required to have a visa. More information on visas and other travel requirements can be found online at <https://www.netherlandsandyou.nl/travel-and-residence/visiting-the-netherlands>.

The Netherlands is a party to the Schengen Agreement. Inhabitants of the Schengen countries can move freely within the Schengen area without having to go through border checkpoints. However, they still must have their passports or identification cards with them when travelling.

U.S. citizens may enter the Netherlands for up to 90 days for tourist or business purposes without a visa. Your passport should be valid for at least three months beyond the period of stay. You need sufficient funds and a return airline ticket. Additional information for U.S. travelers can be found online at <https://travel.state.gov/content/travel/en/international-travel/International-Travel-Country-Information-Pages/Netherlands.html>.

CLIMATE

The Netherlands has a moderate, maritime climate largely influenced by the North Sea and other surrounding waterways. The average temperatures in July range from 71° F (21°C) to 55°F (13°C).

TIME ZONE

Amsterdam observes Central European Time and will be in Central European Summer Time in July during IMAST.

Central European Summer Time is six (6) hours ahead of US Eastern Daylight Time and two (2) hours ahead of Greenwich Mean Time, GMT +2.

ELECTRICITY

The Netherlands operates on 230 volts, compared to the standard 120 volts in the United States, and uses a Type F Electrical Plug with two round pins, spaced about 20cm apart.

REGISTRATION INFORMATION

DATES TO REMEMBER

| | |
|-------------------------------|-------------------|
| Registration Opens | February 15, 2019 |
| Advance Registration Deadline | June 20, 2019 |
| Onsite Registration | July 17-20, 2019 |

| Base Registration Fees | Advance Registration on or before June 20, 2019 | One-Day July 17 or 20 | One-Day July 18 or 19 | Onsite Registration July 17-20 |
|--|--|--------------------------|--------------------------|-----------------------------------|
| SRS Fellows – Physician | \$900 USD | \$250 USD | \$500 USD | \$1,000 USD |
| SRS Fellows – Non-Physician | \$450 USD | \$250 USD | \$500 USD | \$550 USD |
| SRS Emeritus Fellows | \$450 USD | \$250 USD | \$500 USD | \$550 USD |
| Resident/Fellow/Medical Student | \$450 USD | \$250 USD | \$500 USD | \$550 USD |
| Non-Member Physician | \$1,100 USD | \$250 USD | \$500 USD | \$1,200 USD |
| Non-Member Non-Physician | \$550 USD | \$250 USD | \$500 USD | \$650 USD |
| Industry Representative | \$1,150 USD | \$250 USD | \$500 USD | \$1,250 USD |
| Delegates from Reduced Rate Counties** | \$400 USD | \$250 USD | \$500 USD | \$500 USD |
| Guest | \$0 | \$0 | \$0 | \$0 |

The delegate base registration fee includes entrance to all general and concurrent sessions, the IMAST exhibit hall, industry workshops, breaks, lunches, cases & cocktails sessions and the Welcome Reception on Wednesday, July 17.

** For information on countries that qualify for reduced rate registration, please visit the SRS website at www.srs.org/imast2019/registration.

REGISTRATION PROCEDURE

Online registration for the 26th IMAST is encouraged. However, delegates and guests may also register by completing and mailing or faxing the Registration Form at the back of this program. All registrations will be confirmed via email. If you do not receive a confirmation within two weeks of submission, please contact SRS at +1-414-289-9107 or meetings@srs.org.

The advance registration deadline is June 20, 2019. After this date, registrations will only be accepted onsite. No exceptions will be made.

WHAT'S INCLUDED?

The delegate base registration fee includes entrance to all general and concurrent sessions, the IMAST exhibit hall, industry workshops, breaks, lunches, cases & cocktails sessions and the Welcome Reception on Wednesday, July 17.

NEW THIS YEAR

CASES & COCKTAILS SESSIONS

IMAST will kick off on Wednesday, July 17 with the Welcome Reception in the exhibit hall from 17:30-19:00 featuring beverages and heavy appetizers. The reception will be immediately followed by the new and highly anticipated Cases & Cocktails Concurrent Sessions from 19:00-20:30. Cases will be presented by faculty in four concurrent sessions. Attendees will have the opportunity to discuss cases in small groups with an IMAST faculty member present at each table. Each case presentation will be followed by small group discussions in which each table will debate the various treatment options and determine their action plan. Libations will continue to be served during this time so that all may continue to enjoy a relaxed atmosphere while discussing cases. All registered delegates are welcome and encouraged to attend and participate.

Cases & Cocktails Session Topics:

- PJK After Adult Deformity Surgery: How Can We Lower the Incidence?
- Current Pros and Cons of Robotics and Navigation of Today
- Tethering for Scoliosis: Does it Really Work and What are the Indications?
- Complex Pediatric Cases: Looking for a Solution

GUEST ATTENDANCE (DOES NOT INCLUDE SESSION ADMITTANCE.)

Guests must complete and submit a separate Registration Form. Guest registration gives individuals the ability to register for the Welcome Reception on Wednesday, July 17 for \$20. **Entrance to the scientific sessions is not included in guest registration.** Only guests registered as Non-Member Non-Physicians will be allowed to participate in the scientific sessions and breaks. Sorry, no exceptions will be made.

GUEST ATTENDANCE (INCLUDES SESSION ADMITTANCE.)

Guests wishing to attend the Scientific Program should register as Non-Member Non-Physicians by filling out a delegate Registration Form. Guests that register as a Non-Member Non-Physician will receive entrance to all general and concurrent sessions, the IMAST exhibit hall, industry workshops, breaks, lunches, cases & cocktails sessions and the Welcome Reception on Wednesday, July 17.

EXHIBITORS

Exhibitor registration instructions will be mailed to exhibiting companies with the booth assignments in February 2019.

REGISTRATION INFORMATION

SUBSTITUTIONS

Name substitutions must be submitted to SRS in writing prior to June 20, 2019. Any name substitutions made after June 20, including onsite will result in a \$100 processing fee. If the original registrant shows up at the meeting, he/she will be responsible for a new onsite registration fee.

CANCELLATIONS & REFUNDS

All cancellations must be received in writing. Delegates may fax their cancellation to (414) 276-3349 or email it to meetings@srs.org. Delegates will receive a confirmation and refund within 14 days of receipt of their cancellation notice. SRS will grant a full refund, less a 10% processing fee, for cancellations received in writing on or before June 20, 2019. No refunds will be granted after June 20, 2019.

INVITATION LETTERS

Invitation letters for visa requests are available for registered delegates by contacting meetings@srs.org.

HOUSING INFORMATION

There are two headquarter hotel options in Amsterdam, both are located near the RAI Amsterdam Convention Centre. The nearby RAI train, subway and tram stations offer frequent connections to Schiphol Airport and the city center.

HOLIDAY INN AMSTERDAM (4 STAR)

Location: De Boelelaan 2, 1083 HJ Amsterdam, Netherlands

Distance to RAI Amsterdam: 0.9 km

Time to RAI Amsterdam: approx. 10 minute walk

Free Wi-Fi: yes

Rates include breakfast and city tax

Standard room: € 188.28 Single | € 203.28 Double

Executive room: € 219.98 Single | € 234.98 Double

NOVOTEL AMSTERDAM CITY (4 STAR)

Location: Europaboulevard 10, 1083 AD Amsterdam, Netherlands

Distance to RAI Amsterdam: 1 km

Time to RAI Amsterdam: approx. 10 minute walk

Free Wi-Fi: yes

Rates include Breakfast and city tax

Standard room: € 199.00 Single | € 219.00 Double

Executive room € 244.00 Single | € 264.00 Double

Please note, you are responsible for making your own hotel reservations. You can reserve your hotels directly using the online reservation system through RAI Hotel Services, our partners in Amsterdam; for full instructions, please visit www.srs.org/imast2019/housing. We advise you to book as soon as possible so we can guarantee the finest accommodation at affordable rates.

Book Online: <https://book.raihotelservices.com/EventPortal/Information/IMAST19/WELCOME.aspx>

If you choose to book a hotel in the city center, you will be responsible for your own transportation to the convention center.

Attendees are encouraged to book their reservations at the SRS headquarter hotels. Staying at the headquarter hotels not only allows attendees to take advantage of special discounted room rates, but also puts them in close proximity to all meeting events for maximum interaction with fellow attendees and faculty and a hassle-free experience. Additionally, booking in the block helps the Society avoid penalties for not filling its hotel block, which keeps meeting expenses and thus registration rates lower, and achieve a consistent hotel booking history that helps SRS continue to negotiate the lowest room rates possible for future meetings.

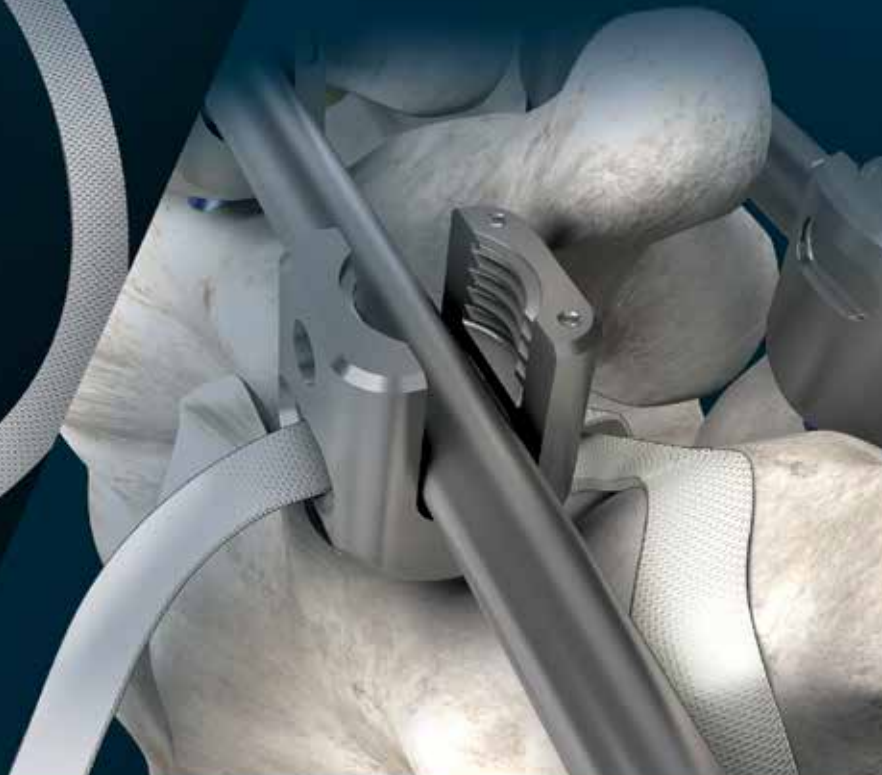
SRS will not make hotel reservations. All reservations, cancellations and changes to reservations should be made directly through the RAI Hotel Services reservation system.

Housing Opens: February 15, 2019

Housing Room Rate Deadline: May 20, 2019

May 20, 2019 is the deadline to make your IMAST housing reservation for the guaranteed room rates. Reservations may be made after this date, but will be subject to room and rate availability.

The RESPONSE Spine System Focused on Pediatric Patients

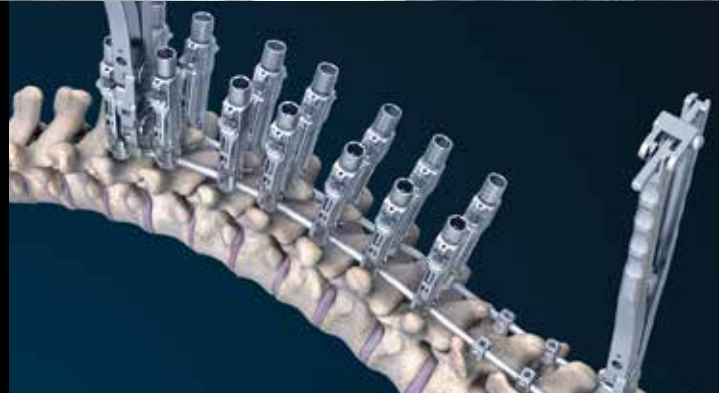


→ RESPONSE 5.5/6.0 dual-rod system

- Advanced instrument & implant technology
- Versatile reduction & de-rotation capabilities

→ Introducing BandLoc 5.5/6.0

- Sub-laminar banding technique featuring a unique tulip head assembly and 1 piece, pre-assembled construct
- Compatible with the OP RESPONSE Spine System and competitive 5.5mm and 6.0mm systems



Designed with a complete focus on children, our RESPONSE Spine system offers a simple, intuitive suite of instruments and implants to treat pediatric spinal deformity.

YOUR PATIENTS, YOUR TECHNIQUE, OUR RESPONSE.



MEETING OVERVIEW

Subject to change

| | Wednesday, July 17 | Thursday, July 18 | Friday, July 19 | Saturday, July 20 |
|-----------|---|---|--|--|
| Morning | 8:00-12:00 Exhibit Set-up Board of Directors Meeting | 7:30-17:30 Registration Open 8:00-9:00 Hands-on Workshops* <i>with Breakfast</i> 8:30-17:00 Exhibit Hall Open 9:00-10:35 General Session: Whitecloud Clinical Award Nominees & Presidential Address 10:35-11:15 Exhibit Viewing & Refreshment Break* 11:15-12:40 Concurrent Sessions | 7:30-16:30 Registration Open 8:00-9:00 Hands-on Workshops* <i>with Breakfast</i> 8:30-15:45 Exhibit Hall Open 9:00-10:10 Concurrent Sessions 10:10-10:40 Exhibit Viewing & Refreshment Break* 10:40-12:05 Concurrent Sessions | 8:30-11:00 Registration Open 9:00-10:00 General Session 10:15-11:15 General Session 11:15-11:30 Walking Break & Boxed Lunch Pick-up* |
| Afternoon | 12:00-16:00 Exhibit Set-up 12:00-14:00 Exhibitor Registration Open 14:00-19:00 Delegate Registration Open | 12:50-13:50 Hands-On Workshops* <i>with Lunch</i> Exhibit Viewing & Lunch* 14:00-15:00 Concurrent Sessions 15:10-16:10 Concurrent Sessions 16:10-16:50 Exhibit Viewing & Refreshment Break* 16:50-17:50 Concurrent Sessions | 12:15-13:15 Hands-On Workshops* <i>with Lunch</i> Exhibit Viewing & Lunch* 13:25-14:10 Concurrent Sessions 14:10-14:50 Exhibit Viewing & Refreshment Break* 14:50-15:50 Concurrent Sessions 16:00-17:00 General Session | 11:30-13:00 General Session 13:00 Adjourn |
| Evening | 17:30-19:00 Welcome Reception* <i>in the Exhibit Hall</i> 19:00-20:30 Cases & Cocktails Discussion Sessions- NEW SESSION | 18:00-19:00 Hands-On Workshops* <i>with snacks & refreshments</i> Free Evening | 17:30-19:00 Faculty Reception – Invitation Only Free Evening | |

**Denotes non-CME session*

**NEW
DATES!**

IMAST 2020

ATHENS, GREECE APRIL 1-4, 2020

Abstract Submission Open: August 1 - November 1, 2019

Registration Opens: December 16, 2019

www.srs.org



SCIENTIFIC PROGRAM

Topics and faculty are preliminary and subject to change.

Topics and faculty are preliminary and subject to change.

WEDNESDAY, JULY 17, 2019

14:00-19:00

Registration Open

17:30-19:00

Welcome Reception in the Exhibit Hall

19:00-20:30

Cases & Cocktails 1: PJK after Adult Deformity Surgery: How Can We Lower the Incidence?

Moderator: Pierre Roussouly, MD

Faculty Discussion Leaders: Munish C. Gupta, MD; Ian J. Harding, BA, FRCS (Orth); Han Jo Kim, MD; Ibrahim Obeid, MD; Ferran Pellisé, MD, PhD; Frank J. Schwab, MD; Christopher I. Shaffrey, MD

Cases & Cocktails 2: Current Pros and Cons of Robotics and Navigation of Today

Moderator: Bernhard Meyer, MD

Faculty Discussion Leaders: Kariman Abelin Genevois, MD, PhD; René Castelein, MD, PhD; John R. Dimar II, MD; Ronald A. Lehman Jr., MD; Markus Richter, MD; Rajiv K. Sethi, MD; Juan S. Uribe, MD

Cases & Cocktails 3: Tethering for Scoliosis: Does it Really Work and What are the Indications?

Moderator: Ahmet Alanay, MD

Faculty Discussion Leaders: Ilkka J. Helenius, MD, PhD; Moyo C. Krzyt, MD, PhD; Baron S. Lonner, MD; Peter O. Newton, MD; Stefan Parent, MD, PhD; Amer F. Samdani, MD; Muharrem Yazici, MD

Cases & Cocktails 4: Complex Pediatric Cases: Looking For a Solution

Moderator: Behrooz A. Akbarnia, MD

Faculty Discussion Leaders: Laurel C. Blakemore, MD; Marinus De Kleuver, MD, PhD; Ron El-Hawary, MD; Dezsoe J. Jeszenszky, MD, PhD; Heiko Koller, MD; Suken A. Shah, MD; Paul D. Sponseller, MD, MBA

THURSDAY, JULY 18, 2019

7:30-17:30

Registration Open

8:00-9:00

***Hands-On Workshops with Breakfast**

(See the "Exhibits and Hands-On Workshops (HOW)" section on page 17 for more information.)

8:30-17:00

Exhibits Open

9:00-10:35

Session 1: General Session

9:00-9:05

Welcome Address

Henry F.H. Halm, MD

IMAST Committee Chair

9:05-10:09

Whitecloud Clinical Award Nominees

More information on podium presentations will be posted to the SRS website prior to the meeting.

10:09-10:14

Introduction of the President

Paul D. Sponseller, MD, MBA

10:14-10:29

Keynote Address

Peter O. Newton MD

Scoliosis Research Society (SRS) President

10:29-10:35

Preview of the 54th Annual Meeting and the 27th IMAST

Annual Meeting – Montréal, Canada

IMAST – Athens, Greece

10:35-11:15

Refreshment Break & Exhibit Viewing

SCIENTIFIC PROGRAM

THURSDAY, JULY 18, 2019

Topics and faculty are preliminary and subject to change.

11:15-12:40

Concurrent Sessions 2A-B: Abstract Sessions

More information on podium presentations will be posted to the SRS website prior to the meeting.

12:40-14:00

Exhibit Viewing & Lunch

12:50-13:50

*Hands-On Workshops with Lunch

(See the "Exhibits and Hands-On Workshops (HOW)" section on page 17 for more information.)

14:00-15:00

Concurrent Sessions 3A-B: Instructional Course Lectures

3A: Early Onset Scoliosis: Staying Current in 2019

Moderators: Ilkka J. Helenius, MD, PhD & Paul D. Sponseller, MD, MBA

- | | |
|-------------|--|
| 14:00-14:02 | Introduction <i>Behrooz A. Akbarnia, MD</i> |
| 14:02-14:08 | Early Onset Scoliosis: Trends and Challenges <i>Paul D. Sponseller, MD, MBA</i> |
| 14:08-14:17 | Casting Indications and Contra-Indications, the Role of Bracing in EOS and Techniques for Both <i>Suken A. Shah, MD</i> |
| 14:17-14:27 | Refining What Works: Best Indications for Shilla, Growing Rods and VEPTR - Tips and Novel Constructs for Special Needs <i>Laurel C. Blakemore, MD</i> |
| 14:27-14:34 | Discussion |
| 14:34-14:43 | MCGR Best and Worst Indications: Timing, Tips and Tricks <i>Kenneth MC Cheung, MD</i> |
| 14:43-14:52 | When to Perform Final Fusion and Other Options after Growing Rod Lengthening <i>Muharrem Yazici, MD</i> |
| 14:52-15:00 | Discussion |

3B: Sagittal Balance: Angles Are Not Everything

Moderators: Han Jo Kim, MD & Pierre Roussouly, MD

- | | |
|-------------|---|
| 14:00-14:08 | Sagittal Balance and Spinopelvic Parameters: Important Basics <i>Clement Silvestre, MD</i> |
| 14:08-14:16 | Sagittal Balance in the Pediatric Population <i>Kariman Abelin Genevois, MD, PhD</i> |
| 14:16-14:24 | From Degenerative to Deformity, How Misunderstanding the Principles Can Get You in Trouble <i>Ronald A. Lehman Jr., MD</i> |
| 14:24-14:32 | Sagittal Balance: Do the Goals Always Justify the Means? <i>Ian J. Harding, BA, FRCS (Orth)</i> |
| 14:32-14:40 | Is PJK as Multifactorial as We Think or are We Just Not Getting the Balance Right? <i>Sébastien Charosky, MD</i> |
| 14:40-15:00 | Discussion |

15:00-15:10

Walking Break

15:10-16:10

Concurrent Sessions 4A-B: Debates

4A: Growth Modulation Techniques for Deformity: Here to Stay or Flash in the Pan?

Moderators: Kenneth MC Cheung, MD & Dezsoe J. Jeszenszky, MD, PhD

- | | |
|-------------|---|
| 15:10-15:15 | Introduction <i>Kenneth MC Cheung, MD</i> |
| 15:15-15:23 | Anterior Vertebral Body Tethering for Adolescent Scoliosis <i>Amer F. Samdani, MD</i> |
| 15:23-15:31 | Case Discussion <i>Ahmet Alanay, MD</i> |
| 15:31-15:39 | Posterior Motion Sparing Techniques for Adolescent Scoliosis <i>Ron El-Hawary, MD</i> |
| 15:39-15:47 | Voice of Reason: Posterior Fusion for Adolescent Scoliosis is the Gold Standard <i>Suken A. Shah, MD</i> |
| 15:47-15:55 | Wait...What?! Anterior Vertebral Body Tethering for Adult Scoliosis? <i>Baron S. Lonner, MD</i> |
| 15:55-16:10 | Discussion |

SCIENTIFIC PROGRAM

Topics and faculty are preliminary and subject to change.

THURSDAY, JULY 18, 2018

4B: Spinal Navigation: Increased Accuracy and Safety or Just Another Toy?

Moderators: Ulf R. Liljenqvist, MD & Rajiv K. Sethi, MD

- 15:10-15:18 Pro Navigation in Instrumented Spine Surgery: For the Safety of the Patient and Less Radiation to the Surgeon
Bernhard Meyer, MD
- 15:18-15:26 Counterpoint Navigation in Instrumented Spine Surgery: We Are Getting the Same Patient Outcomes with Less Radiation for the Patient with Less Cost and Faster OR Times
Henry F.H. Halm, MD
- 15:26-15:34 Increased Safety for Patients with Navigation in Cervical Spine Pathology, Especially Rheumatoid Arthritis
Markus Richter, MD
- 15:34-15:45 Discussion
- 15:45-15:53 Spinal Stenosis and Degenerative Spondylolisthesis: Pro-decompression and Stabilization
Ulf R. Liljenqvist, MD
- 15:53-16:01 Spinal Stenosis and Degenerative Spondylolisthesis: Pro-decompression without Stabilization
Markus Richter, MD
- 16:01-16:10 Discussion

16:10-16:50

Refreshment Break & Exhibit Viewing

16:50-17:50

Concurrent Sessions 5A-B: Instructional Course Lectures

5A: Innovations in Spinal Implant Technology: Opportunities and Risks

Moderators: René Castelein, MD, PhD & Marinus De Kleuver, MD, PhD

- 16:50-17:00 Bridging the Spine with Bipolar Fixation Instead of All Level Fixation and Fusion
Lotfi Miladi, MD
- 17:00-17:05 Discussion
- 17:05-17:10 Innovative Methods for Magnetic Controlled Growing Rods in EOS: Pearls and Pitfalls
Phillip Horsting, MD
- 17:10-17:15 Hybrid use of Magnetically Controlled Growing Rods
Sebastiaan Wijdicks, MD
- 17:15-17:25 Spring Distraction System and its Applications
Moyo C. Kruijt, MD, PhD
- 17:25-17:35 Discussion
- 17:35-17:45 Application of 3D Printed Spinal Implants
Maarten Spruit, MD
- 17:45-17:50 Discussion

5B: Disc Replacement in the Cervical Spine: Is it the New Gold Standard?

Moderators: Bernhard Meyer, MD & Fernando Techy, MD

- 16:50-17:00 ACDF is Better to Treat Radiculopathy
Luiz Roberto Vialle, MD
- 17:00-17:10 Disc Replacement is Better to Treat Radiculopathy
Fernando Techy, MD
- 17:10-17:20 It's Ok to Treat Myelopathy with Disc Replacement Surgery
Todd J. Albert, MD
- 17:20-17:30 I Prefer the Stability of Fusion to Treat Myelopathy
Michael G. Fehlings, MD, PhD, FRCSC, FACS
- 17:30-17:50 Discussion

17:50-18:00

Walking Break

18:00-19:00

*Afternoon Hands-On Workshops with Beverages and Snacks

(See the "Exhibits and Hands-On Workshops (HOW)" section on page 17 for more information.)

SCIENTIFIC PROGRAM

FRIDAY, JULY 19, 2019

Topics and faculty are preliminary and subject to change.

7:30-16:30

Registration Open

8:00-9:00

***Hands-On Workshops with Breakfast**

(See the "Exhibits and Hands-On Workshops (HOW)" section on page 17 for more information.)

8:30-15:45

Exhibits Open

9:00-10:10

Concurrent Sessions 6A-B: Abstract Sessions

More information on podium presentations will be posted to the SRS website prior to the meeting.

10:10-10:40

Refreshment Break & Exhibit Viewing

10:40-12:05

Concurrent Sessions 7A-B: Abstract Sessions

More information on podium presentations will be posted to the SRS website prior to the meeting.

12:05-13:25

Exhibit Viewing & Lunch

12:15-13:15

***Hands-On Workshops with Lunch**

(See the "Exhibits and Hands-On Workshops (HOW)" section on page 17 for more information.)

13:25-14:10

Concurrent Sessions 8A-B: Case Series

8A: Pediatric Deformity: Important Lessons and Challenges from the Masters

Moderators: Behrooz A. Akbarnia, MD & Moyo C. Kruyt, MD, PhD

13:25-13:30 Case 1
Marinus De Kleuver, MD, PhD

13:30-13:35 Case 2
Muharrem Yazici, MD

13:35-13:40 Case 3
Suken A. Shah, MD

13:40-13:45 Case 4
Dezsoe J. Jeszenszky, MD, PhD

13:45-14:10 Discussion

8B: Adult Deformity: Important Lessons and Challenges from the Masters

Moderators: John R. Dimar II, MD & Han Jo Kim, MD

13:25-13:30 Case 1
Yong Qiu, MD

13:30-13:35 Case 2
Pierre Roussouly, MD

13:35-13:40 Case 3
Ferran Pellisé, MD, PhD

13:40-13:45 Case 4
Ibrahim Obeid, MD

13:45-14:10 Discussion

14:10-14:50

Refreshment Break & Exhibit Viewing

14:50-15:50

Concurrent Sessions 9A-B: Instructional Course Lectures

9A: Complications and Management of Complex Pediatric Deformities

Moderators: Azmi Hamzaoglu, MD & Peter O. Newton, MD

14:50-14:58 Management of Intraoperative Neuromonitoring Alerts: Is it a False Positive?
Peter O. Newton, MD

14:58-15:06 Management of Distal Junctional Failures Including Adding On: What Does the Literature Say?
Ahmet Alanay, MD

15:06-15:14 Complications from Anterior Vertebral Body Tethering: Strategies for Management
Stefan Parent, MD, PhD

15:14-15:24 Pelvic Fixation Strategies in Early Onset Deformities: Which is Best? When and Why?
Baron S. Lonner, MD

15:24-15:34 Management of Crankshaft Phenomenon in Pediatric Deformities
Azmi Hamzaoglu, MD

15:34-15:50 Discussion

SCIENTIFIC PROGRAM

Topics and faculty are preliminary and subject to change.

FRIDAY, JULY 19, 2019

9B: Coronal Plane Balance in Adult Deformity Surgery: Planning and Execution is as Important as Sagittal Plane Balance

Moderators: John R. Dimar II, MD & Henry F.H. Halm, MD

- 14:50-14:59 Recognizing and Correcting the Stiff Fractional Lumbosacral Curve
Yong Qiu, MD
- 14:59-15:08 How Do We Analyze and Confirm Optimal Coronal Balance Intraoperatively and Can We use Minimally Invasive Techniques?
Juan S. Uribe, MD
- 15:08-15:17 Preoperative Coronal Balance: How to Analyze and Treat
Munish C. Gupta, MD
- 15:17-15:26 Techniques for Optimizing Intra-operative Coronal Balance
Rajiv K. Sethi, MD
- 15:26-15:35 Postoperative Coronal Imbalance: Analysis and Strategies for Correction
Sebastien Charosky, MD
- 15:35-15:50 Discussion

15:50-16:00

Walking Break

16:00-17:00

Session 10: General Session

10. Challenges in Cervical Deformities: From Cradle to Cane

Moderators: Ian J. Harding, BA, FRCS (Orth) & Frank J. Schwab, MD

- 16:00-16:08 Diagnosis, Planning and Techniques for Pediatric Cervical Scoliosis
Rune L. Hedlund, MD
- 16:08-16:16 Instrumentation and Reconstructive Techniques in the Pediatric Cervical Spine: Challenges, Pitfalls and Solutions
Heiko Koller, MD
- 16:16-16:24 Complications in the Pediatric Cervical Spine: Why They Happen and How to Avoid
Dezsoe J. Jeszszsky, MD, PhD
- 16:24-16:32 Discussion
- 16:32-16:40 Osteotomy Selection in Adult Cervical Deformities
Han Jo Kim, MD
- 16:40-16:48 Complications in Adult Cervical Deformity Surgery
Todd J. Albert, MD
- 16:48-17:00 Discussion

SATURDAY, JULY 20, 2019

8:30-11:00

Registration Open

9:00-10:00

Session 11: Surgical Video Session

11: The Five Most Important Tricks for Specific Procedures and Techniques (PVCR, Anterior Tethering, Robotics, MIS Anterior)

Moderators: Munish C. Gupta, MD & Ferran Pellisé, MD, PhD

- 9:00-9:10 Posterior Vertebral Column Resection in Severe Deformity
Lawrence G. Lenke, MD
- 9:10-9:20 Anterior Tethering
Stefan Parent, MD, PhD
- 9:20-9:30 Robotic Assisted Spine Surgery in Deformities
Ronald A. Lehman Jr., MD
- 9:30-9:40 Minimally Invasive Direct Lateral Approaches in Degenerative Deformity
Juan S. Uribe, MD
- 9:40-10:00 Discussion

10:00-10:10

Walking Break

10:10-10:12

Presentation of Whitecloud Awards

10:10-11:10

Session 12: Case Discussion

12. My Worst Complication: Lessons Learned from the Masters

Moderators: Kenneth MC Cheung, MD & Lotfi Miladi, MD

- 10:12-10:19 Case 1
Lawrence G. Lenke, MD
- 10:19-10:26 Case 2
Amer F. Samdani, MD
- 10:26-10:33 Case 3
Ibrahim Obeid, MD
- 10:33-10:40 Case 4
Dominique A. Rothenfluh, MD, PhD
- 10:40-11:10 Discussion

11:10-11:30

Walking Break & Boxed Lunch Pick-up

SCIENTIFIC PROGRAM

Topics and faculty are preliminary and subject to change.

SATURDAY, JULY 20, 2019

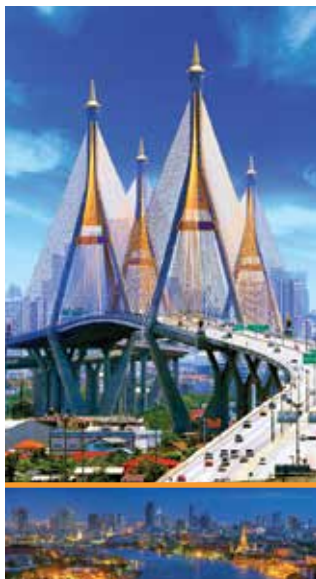
11:30-13:00

Session 13: Lunch with the Experts

13. PJK Prevention Strategies from the Experts: What is the Evidence?

Moderators: Han Jo Kim, MD & Peter O. Newton, MD

- 11:30-11:40 Vertebral Body Augmentation with Cement
Henry F.H. Halm, MD
- 11:40-11:50 Proximal Dynamic Stabilization
Christopher I. Shaffrey, MD
- 11:50-12:00 Age-Adjusted Alignment Correction
Han Jo Kim, MD
- 12:00-12:15 Discussion
- 12:15-12:25 Instrumentation at the UIV
Frank J. Schwab, MD
- 12:25-12:35 Adhering to the GAP Score for PJK Prevention
Ferran Pellisé, MD, PhD
- 12:35-12:45 PJK Prevention in Pediatric Neuromuscular Deformity
Paul D. Sponseller, MD, MBA
- 12:45-13:00 Discussion
- 13:00 Adjourn



THE SCOLIOSIS RESEARCH SOCIETY
& THE THAI SPINE SOCIETY PRESENTS

SPINE DEFORMITY SOLUTIONS: A HANDS-ON COURSE

NOVEMBER 1-3, 2019

Siriraj Training and Education Center for Clinical Skill (SiTEC)
Bangkok, Thailand

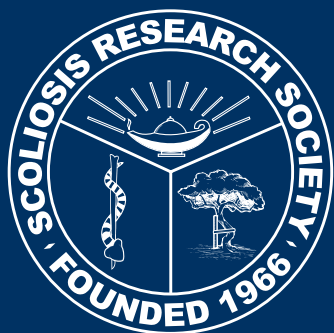
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REGISTRATION OPENS: JUNE 3, 2019

SCOLIOSIS RESEARCH SOCIETY

55th Annual Meeting

PHOENIX, ARIZONA • SEPTEMBER 9-12, 2020



Abstract Submission Open:
November 1, 2019 -
February 1, 2020

Registration Opens:
April 2020

www.srs.org



EXHIBITS AND HANDS-ON WORKSHOPS

Exhibiting and demonstrating companies are subject to change.

EXHIBITS

(as of February 2019)

SRS encourages IMAST delegates to visit the IMAST Exhibit Hall during exhibit viewing times and between sessions. The following companies will be represented in the IMAST 2019 Exhibit Hall.

Exhibit Hall Hours:

| | |
|--------------------|-------------|
| Wednesday, July 17 | 17:30-19:30 |
| Thursday, July 18 | 8:30-17:00 |
| Friday, July 19 | 8:30-15:45 |

Cerapedics

11025 Doer Street, Suite 1600
Westminster, CO 80021 USA
www.cerapedics.com

Cuattro Medical

150 Capital Drive
Golden, CO 80401 USA
med.cuattro.com

DePuy Synthes**

325 Paramount Drive
Raynham, MA 02767 USA
www.depuyssynthes.com

DIERS Medical Systems

1752 Capital Street, Suite 310
Elgin, IL 60124 USA
www.diersmedical.com

EOS Imaging

10 Rue Mercoeur
Paris 75011 France
www.eos-imaging.com

Globus Medical**

2560 General Armistead Avenue
Audubon, PA 19403 USA
www.globusmedical.com

K2M Inc.**

600 Hope Parkway
Leesburg, VA 20175 USA
www.k2m.com

Medtronic**

2600 Sofamor Danek Drive
Memphis, TN 38017
www.medtronic.com

Misonix

1938 New Hwy
Farmingdale, NY 11735 USA
www.misonix.com

NuVasive**

7475 Lusk Boulevard
San Diego, CA 92121 USA
www.nuvasive.com

OrthoPediatrics

2850 Frontier Drive
Warsaw, IN 46582 USA
www.orthopediatrics.com

Zimmer Biomet*

10225 Westminster Drive
Westminster, CO 80021 USA
www.zimmerbiomet.com

**** SRS Double Diamond Level Supporter**

*** SRS Diamond Level Supporter**

HANDS-ON WORKSHOPS

(as of February 2019)

IMAST delegates are encouraged to attend the Hands-On Workshops (HOW) on Thursday and Friday mornings with breakfast, at lunch on Thursday and Friday and on Thursday afternoon with snacks and beverages. Each workshop is programmed by a single- supporting company and will feature presentations on topics and technologies selected by the company. *Please note: CME credits are not available for Hands-On Workshops.

Thursday, July 18, 2019 – 8:00-9:00

- DePuy Synthes

Thursday, July 18, 2019 – 12:50-13:50

- Globus Medical
- K2M
- Medtronic
- NuVasive
- Zimmer Biomet

Thursday, July 18, 2019 – 18:00-19:00

- K2M

Friday, July 19, 2019 – 8:00-9:00

- DePuy Synthes
- K2M
- Medtronic
- Zimmer Biomet

Friday, July 19, 2019 – 12:15-13:15

- Globus Medical
- K2M

–NEW– Wellness Lounge

Located in the Exhibit Hall. The Wellness Lounge will be open during all exhibit hours to be used by the attendees to relax and recharge. The Wellness Lounge will include comfortable seating, healthy snacks and water and will serve as a place for attendees to “recharge” during the busy meeting.

SOCIAL EVENTS & OPTIONAL ACTIVITIES

WELCOME RECEPTION

All registered delegates and registered guests are invited to pick up their registration materials and to attend the IMAST Welcome Reception on Wednesday, July 17 from 17:30-19:00. The reception will be hosted in the Exhibit Hall in the Auditorium & Onyx Lounges at the RAI Amsterdam Convention Centre, where beverages and light hors d'oeuvres will be served. There is no charge for registered delegates, though a ticket must be requested at the time of registration. Registered guests may purchase a Welcome Reception ticket for \$20 USD at the time of registration. Dress for the Welcome Reception is business casual.

We encourage delegates to take part in the new cases & cocktails sessions immediately following the Welcome Reception on Wednesday, July 17. Please note, only guests registered as Non-Member Non-Physicians may participate in the educational sessions.

COURSE RECEPTION

There will be no Course Reception at the 26th IMAST; attendees are free to plan their evening as they like and enjoy Amsterdam.

STAY UP TO DATE WITH SRS DURING IMAST AND SHARE YOUR EXPERIENCES.
#SRSIMAST19



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Scoliosis Research Society



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Scoliosis Research Society

The Scoliosis Research Society presents

Current Concepts & Hands-On Course



MAY 8-11, 2019
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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, 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.

See website (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. 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 and printable membership applications, please visit the SRS website at www.srs.org.

SOCIETY OFFICE STAFF

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Lily Atonio – Education and Program Manager (latonio@srs.org)
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Ann D'Arienzo, CMP – Senior Meetings Manager (adarianzo@srs.org)
Jenifer Heller – Meetings Manager (jheller@srs.org)
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Shawn Storey – Website and Program Manager (sstorey@srs.org)

SCOLIOSIS RESEARCH SOCIETY

555 East Wells Street, Suite 1100
Milwaukee, WI 53202
Phone: 414-289-9107
Fax: 414-276-3349
www.srs.org

SOCIAL MEDIA

Stay up to date with SRS during IMAST and share your experiences.
#SRSIMAST19
Twitter: @srs_org
Facebook: Scoliosis Research Society
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LinkedIn: Scoliosis Research Society

2018 RESEARCH GRANT RECIPIENTS

The SRS Research Grant Committee would like to congratulate the following 2018 grant recipients:

OVERVIEW OF SRS RESEARCH PROGRAMS

The SRS Research funds are dedicated solely to research seeking improved treatments, the causes and possible prevention of spinal deformities. Since 1994, SRS has provided more than \$4.7 million for 151 spinal deformity research projects from the institutions all over the world, including the United States, Australia, Canada, China, France and Israel. These have included studies on improved spinal cord monitoring during surgery, brace treatment effectiveness, methods to improve fusion rates, and three large studies looking for the cause of idiopathic scoliosis.

In 2018, SRS received 39 grant applications, requesting a total of over \$1.2 million. The following 12 projects were selected for funding.

| Title of Project | Primary Investigator/ Location | Grant Duration | Type of Grant | Amt. Approved |
|--|--|-------------------|--|------------------|
| Minimize Implants Maximize Outcomes Clinical Trial | A. Noelle Larson, MD/ Rochester, MN, USA | 2 years | Standard | \$47,824.00 |
| Using Ultrasound and Health' Records to Non-Invasively Identify Cases with Curve Progression or not in Children with AIS | Edmond Lou, PhD, Peng/ Edmonton, AB, Canada | 2 years | SRS-NuVasive Standard | \$50,000.00 |
| Effect of Controlled Dynamic Spine Distraction on Intervertebral Disc, Growth Plates, Bone Quality and Spine Stiffness; An in Vivo Study on a Rodent Model | Michael Kelly, MD/ St. Louis, MO, USA | 1 year | New Investigator | \$25,000.00 |
| Prediction of curve progression in idiopathic scoliosis without treatment | Stefano Negrini, MD/ Brescia, Italy | 2 years | SRS-K2M Standard | \$50,000.00 |
| Developing a 3D Marker Based Method for Assessing Pulmonary Function in Idiopathic Scoliosis | Kristen Nicholson, PhD/ Philadelphia, PA, USA | 2 years | New Investigator | \$25,000.00 |
| Effects of vertebral body tethering on the discs, endplates and facet joints in AIS patients: A 2 year follow-up MRI study | Dr. Caglar Yilgor, MD/ Istanbul, Turkey | 1 year | SRS-Globus Medical New Investigator Grant | \$10,000.00 |
| The 22q11.2 Deletion Syndrome: The first human model for idiopathic scoliosis? | Rene Castelein, MD, PhD/ Utrecht, the Netherlands | 1 year | Small Exploratory | \$9,842.00 |
| Genetic analysis of familial congenital scoliosis | Dawei Li/ Burlington, VT, USA | 1 year | Small Exploratory | \$10,000.00 |
| Best Practice Guidelines for Non-Operative Care of AIS | Michael Vitale, MD, MPH/ New York, NY, USA | 1 year | Standard | \$25,000.00 |
| Magnetic Resonance Imaging (MRI) Evaluation of Adolescent Idiopathic Scoliosis (AIS) Patients Who Have Undergone Vertebral Body Tethering (VBT) | Daniel Hoernschemeyer, MD/ Columbia, MO, USA | 1 year | SRS-Globus Medical Small Exploratory Grant | \$9,661.00 |
| Understanding and managing intraoperative neuromonitoring changes during spinal deformity surgery: a prospective observational study based on two clinical sites | Stephen Lewis, MD, MSc, FRCSC/ Toronto, ON, Canada | 2 years | Standard | \$25,000.00 |
| Estimating Minimally Clinically Important Difference in EOSQ-24 using Anchor-Based Approach | David Royce, Jr., MD/ New York, NY, USA | 2 years | SRS-Globus Medical Standard Research Grant | \$25,000.00 |

2018 AWARD RECIPIENTS

SRS AWARDS

Lifetime Achievement Awards

Presented to a member who has exhibited long and distinguished service to SRS and to spinal deformity research and care:

John A. (Tony) Herring, MD

Se-II Suk, MD

Walter P. Blount Humanitarian Award

Presented for outstanding service to those with spinal deformity, and for generosity to the profession and Society:

Richard M. Schwend, MD

IMAST AWARDS

Whitecloud Award for Best Basic Science Paper

Paper #12: A New Method to Measure The Cobb Angle in Idiopathic Scoliosis by Ultrasonography: A Prospective and Blinded Study
Joan Ferras Tarrago, MD; Jorge M. Morales, MD; Pedro Rubio Belmar, MD; Silvia Pérez Vergara, MD; Pablo Jorda, MD; Jose Luís Bas Hermida, MD; Paloma Bas Hermida, MD; Teresa Bas, MD, PhD

Whitecloud Award for Best Clinical Paper

Paper #1: The Amount of Curve Correction is More Important than Upper Instrumented Vertebra Selection for Ensuring Postoperative Shoulder Balance in Lenke Type 1 Adolescent Idiopathic Scoliosis
J. Alex Sielatycki, MD; Eduardo C. Beauchamp, MD; Takayoshi Shimizu, MD, PhD; Chao Wei, MD; Suthipas Pongmanee, MD; Meghan Cerpa, BS, MPH; Lawrence G. Lenke, MD; Harms Study Group

ANNUAL MEETING AWARDS

Russell A. Hibbs Awards

The Russell A. Hibbs Award for the Best Basic Research Presentation was presented to:

Paper #51: POC5 and Cilia Anomalies in Adolescent Idiopathic Scoliosis

Amani Hassan, PhD; Stefan Parent, MD, PhD; Sirinart Molidpereee; Soraya Barchi, BS; Kessen Patten, PhD; Florina Moldovan, MD, PhD

The Russell A. Hibbs Award for the Best Clinical Research Presentation was awarded to:

Paper #57: 10-Year Natural History of the Uninstrumented Compensatory Curve in Selectively Fused AIS

Burt Yaszay, MD; Madeline Cross, MPH; Carrie E. Bartley, MA; Tracey P. Bastrom, MA; Suken A. Shah, MD; Baron S. Lonner, MD; Patrick J. Cahill, MD; Amer F. Samdani, MD; Vidyadhar V Upasani, MD; Peter O. Newton, MD

John H. Moe Award

The John H. Moe Award is given to the Best Basic Science E-Poster at the Annual Meeting & Course. This year the award was presented to:

Paravertebral Muscles Show Cross Activation in Double but also in Single AIS Curves, with a Correspondent Oxygen Consumption: An electromyography and Near Infrared Spectroscopic Study
Barbara Piovaneli, PT; Massimiliano Gobbo, MD; Jorge Villafane, PhD; Sabrina Donzelli, MD; Fabio Zaina, MD; Stefano Negrini, MD

Louis A. Goldstein Award

The Louis A. Goldstein Award is given to the Best Clinical E-Poster at the Annual Meeting & Course. This year the award was presented to:

The Role of Traditional Growing Rods in the Era of Magnetically-Controlled Growing Rods for the Treatment of Early-Onset Scoliosis
Eric Varley, MD; Burt Yaszay, MD; Jeff Pawelek, BS; Gregory Mundis, MD; Matthew Oetgen, MD; Peter Sturm, MD; Behrooz Akbarnia, MD; Growing Spine Study Group

CORPORATE SUPPORT

We are pleased to acknowledge and thank the companies that provided financial support to SRS in 2018.

Support levels are based on total contributions throughout the year and include the Annual Meeting, IMAST, Worldwide Courses, Global Outreach Scholarships, Edgar Dawson Memorial Scholarships, SRS Traveling Fellowships and the Research Education Outreach (REO) Fund.

DOUBLE DIAMOND LEVEL SUPPORT

DePuy Synthes

Globus Medical

K2M

Medtronic

NuVasive

DIAMOND LEVEL SUPPORT

Zimmer Biomet

GOLD LEVEL SUPPORT

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L&K BIOMED
Life Spine, Inc.
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Medyssey
Mighty Oak Medical
Misonix, Inc.

NASS
Paradigm Spine
Silony Medical
Spinal Balance
Spineart
Titan Spine



DELEGATE Registration Form

26th International Meeting On Advanced Spine Techniques

JULY 17-20, 2019 Amsterdam, the Netherlands | RAI Amsterdam Convention Centre

IMAST 2019
amsterdam
THE NETHERLANDS

Advance Registration Deadline: June 20, 2019 (Registrations will ONLY be accepted onsite after this date – no exceptions)

Completed registration forms should be emailed, faxed or mailed to the SRS Office. Online registration is available at www.srs.org/imast2019/registration.

Email: meetings@srs.org | Fax +1 414-276-3349 | Mailing Address: Scoliosis Research Society, 555 E. Wells Street, Suite 1100, Milwaukee, WI, 53202, United States

DELEGATE INFORMATION

| | | | | |
|---|--------------------|--------------------|------------------------------|-----------------------|
| SRS ID Number | First (Given) Name | Last (Family) Name | Suffix (Jr., III, etc) | Degree (MD, PhD, etc) |
| Email Address (All correspondence is done by email) | | | Institution | |
| Mailing Address | | | | |
| City | State | Zip/Postal Code | Country (To appear on badge) | |
| Specialty: <input type="checkbox"/> Orthopaedic Surgeon <input type="checkbox"/> Neurosurgeon <input type="checkbox"/> Other: _____ | | | | |
| Assistant/Company Personnel Email Address: _____ | | | | |
| Dietary Restrictions/Requirements: _____ | | | | |

| Base Registration Fees* | Advance Registration On or Before June 20, 2019 | One-Day Registration July 17 <input type="checkbox"/> or 20 <input type="checkbox"/> | One-Day Registration July 18 <input type="checkbox"/> or 19 <input type="checkbox"/> | Onsite Registration July 17-20 |
|---|--|---|---|-----------------------------------|
| SRS Fellow – Physician | <input type="checkbox"/> \$900 USD | <input type="checkbox"/> \$250 USD | <input type="checkbox"/> \$500 USD | \$1,000 USD |
| SRS Fellow – Non-Physician | <input type="checkbox"/> \$450 USD | <input type="checkbox"/> \$250 USD | <input type="checkbox"/> \$500 USD | \$550 USD |
| SRS Emeritus Fellow | <input type="checkbox"/> \$450 USD | <input type="checkbox"/> \$250 USD | <input type="checkbox"/> \$500 USD | \$550 USD |
| Resident/Fellow/Medical Student | <input type="checkbox"/> \$450 USD | <input type="checkbox"/> \$250 USD | <input type="checkbox"/> \$500 USD | \$550 USD |
| Non-Member Physician | <input type="checkbox"/> \$1,100 USD | <input type="checkbox"/> \$250 USD | <input type="checkbox"/> \$500 USD | \$1,200 USD |
| Non-Member Non-Physician | <input type="checkbox"/> \$550 USD | <input type="checkbox"/> \$250 USD | <input type="checkbox"/> \$500 USD | \$650 USD |
| Industry Representative | <input type="checkbox"/> \$1,150 USD | <input type="checkbox"/> \$250 USD | <input type="checkbox"/> \$500 USD | \$1,250 USD |
| Delegates from Reduced Rate Countries** | <input type="checkbox"/> \$400 USD | <input type="checkbox"/> \$250 USD | <input type="checkbox"/> \$500 USD | \$500 USD |

* The delegate base registration fee includes entrance to all general and concurrent sessions, the IMAST exhibit hall, industry workshops, breaks, lunches and cases & cocktail sessions and the Welcome Reception on Wednesday, July 17. To register a guest please see guest form at www.srs.org/imast2019/registration.

**For information on countries that qualify for reduced rate registration, please visit the SRS website at www.srs.org/imast2019/registration.

Session Selection – (selection may be changed onsite)*

Wednesday, July 17 (19:00-20:30, immediately after the Welcome Reception)

- Cases & Cocktails 1**: PJK After Adult Deformity Surgery: How Can We Lower the Incidence? ☐
- Cases & Cocktails 2**: Current Pros and Cons of Robotics and Navigation of Today ☐
- Cases & Cocktails 3**: Tethering for Scoliosis: Does it Really Work and What are the Indications? ☐
- Cases & Cocktails 4**: Complex Pediatric Cases: Looking for a Solution ☐

Thursday, July 18

- 3A: ICL: Early-Onset Scoliosis: Staying Current in 2019 ☐
- 3B: ICL: Sagittal Balance: Angles Are Not Everything ☐
- 4A: Debate: Growth Modulation Techniques for Deformity: Here to Stay or Flash in the Pan? ☐
- 4B: Debate: Spinal Navigation: Increased Accuracy and Safety or Just another Toy? ☐
- 5A: ICL: Innovations in Spinal Implant Technology: Opportunities and Risks ☐
- 5B: ICL: Disc Replacement in the Cervical Spine: Is it the New Gold Standard? ☐

Friday, July 19

- 8A: Case Discussion: Pediatric Deformity: Important Lessons and Challenges from the Masters ☐
- 8B: Case Discussion: Adult Deformity: Important Lessons and Challenges from the Masters ☐
- 9A: Complications and Management of Complex Pediatric Deformities ☐
- 9B: Coronal Plane Balance in Adult Deformity Surgery: Planning and Execution is as Important as Sagittal Plane Balance ☐

*These educational sessions are included in the base registration fee. Delegates are asked to indicate which concurrent sessions they plan to attend for planning purposes.

**The new and highly anticipated Cases & Cocktail Sessions will immediately follow the Welcome Reception on Wednesday, July 17. Cases will be presented by faculty in four concurrent sessions. Attendees will have the opportunity to discuss cases in small groups with an IMAST faculty member present at each table.

Total Fees \$ _____ USD

- ☐ Include me on the delegate list provided to exhibitors and workshop supporting companies so that they may send me information about their products, services and involvement at the meeting.
- ☐ Include me on any published delegate list including programs, mobile apps, etc.

For more information, please read our privacy policy (www.srs.org/about-srs/contact-us/privacy-policy)

Cancellation Policy:

All cancellations must be received in writing. Delegates may fax their cancellation to (414) 276-3349 or email it to meetings@srs.org. Delegates will receive a confirmation and refund within 14 days of receipt of their cancellation notice. SRS will grant a full refund, less a 10% processing fee, for cancellations received in writing on or before June 20, 2019. No refunds will be granted after June 20, 2019. SRS Tax ID #23-7181863

Waiver:

Submission of this registration form and payment of associated fee serves as agreement by the delegate to release the Scoliosis Research Society, the RAI Amsterdam Convention Centre and their respective agents, servants, employees, representatives, successors, and assigns, from any and against all claims, demands, causes of action, damages, costs, and expenses, including attorneys' fees, for injury to person or damage to property arising out of attendance at IMAST 2019. In addition, the delegate hereby grants permission to use his/her likeness in a photograph or other digital reproduction in any and all of its publications, including website entries, without payment or any other consideration, agreeing that these materials will become the property of SRS which has the right to edit, alter, copy, exhibit, publish or distribute this photo for purposes of publicizing its programs or for any other lawful purpose. Additionally, the delegate waives any right to royalties or other compensation arising or related to the use of the photograph.

PAYMENT INFORMATION

Checks (US funds drawn on a US bank only) may be made payable and mailed to:

Scoliosis Research Society • 555 E. Wells Street, Suite 1100 • Milwaukee, WI 53202

Or provide credit card information with complete billing address:

☐ Check Enclosed ☐ Visa ☐ MasterCard ☐ American Express

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| Expiration Date | |
| Name (As it appears on the card) | |
| Billing Address | |
| City | State |
| Zip/Postal Code | |
| Country | |
| Signature (I agree to pay according to the card issuer agreement) | |



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Life moves us



GUEST Registration Form

26th International Meeting On Advanced Spine Techniques

JULY 17-20, 2019 Amsterdam, the Netherlands | RAI Amsterdam Convention Centre

IMAST 2019 
amsterdam
THE NETHERLANDS

Advance Registration Deadline: June 20, 2019 (Registrations will ONLY be accepted onsite after this date – no exceptions)

Completed registration forms should be emailed, faxed or mailed to the SRS Office. Online registration is available at www.srs.org/imast2019/registration.

Email: meetings@srs.org | Fax +1 414-276-3349 | Mailing Address: Scoliosis Research Society, 555 E. Wells Street, Suite 1100, Milwaukee, WI, 53202, United States

GUEST INFORMATION

| | | | | |
|---|--------------------|--------------------|------------------------------|-----------------------|
| SRS ID Number | First (Given) Name | Last (Family) Name | Suffix (Jr., III, etc) | Degree (MD, PhD, etc) |
| Email Address (All correspondence is done by email) | | | Institution | |
| Mailing Address | | | | |
| City | State | Zip/Postal Code | Country (To appear on badge) | |
| Dietary Restrictions/Requirements | | | | |

I am a guest of the following REGISTERED delegate:

| | | | |
|---------------|--------------------|--------------------|------|
| SRS ID Number | First (Given) Name | Last (Family) Name | City |
|---------------|--------------------|--------------------|------|

Base Registration Fees*

*Guest registration does not include entrance to the scientific sessions.

Guest ☐ \$0 USD

*Guests registering using this form are able to register for the Welcome Reception on Wednesday, July 17 for \$20. Entrance to the scientific sessions is not included in the guest registration fee. Only guests registered as Non-Member Non-Physicians using the Delegate registration form will be allowed to participate in the scientific sessions and breaks. Sorry, no exceptions will be made.

Social Event Add-Ons

| Date | Additional Fee |
|-------------------|-----------------------------------|
| Welcome Reception | Wednesday, July 17 |
| | \$20 USD <input type="checkbox"/> |

Total Fees \$ _____ USD

PAYMENT INFORMATION

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Scoliosis Research Society • 555 E. Wells Street, Suite 1100 • Milwaukee, WI 53202

Or provide credit card information with complete billing address:

☐ Check Enclosed ☐ Visa ☐ MasterCard ☐ American Express

| | |
|---|---------------|
| Card Number | Security Code |
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| Billing Address | |
| City | State |
| Zip/Postal Code | |
| Country | |
| Signature (I agree to pay according to the card issuer agreement) | |

Cancellation Policy:

All cancellations must be received in writing. Delegates may fax their cancellation to (414) 276-3349 or email it to meetings@srs.org. Delegates will receive a confirmation and refund within 14 days of receipt of their cancellation notice. SRS will grant a full refund, less a 10% processing fee, for cancellations received in writing on or before June 20, 2019. No refunds will be granted after June 20, 2019.

Waiver:

Submission of this registration form and payment of associated fee serves as agreement by the delegate to release the Scoliosis Research Society, the RAI Amsterdam Convention Centre and their respective agents, servants, employees, representatives, successors, and assigns, from any and against all claims, demands, causes of action, damages, costs, and expenses, including attorneys' fees, for injury to person or damage to property arising out of attendance at IMAST 2019. In addition, the delegate hereby grants permission to use his/her likeness in a photograph or other digital reproduction in any and all of its publications, including website entries, without payment or any other consideration, agreeing that these materials will become the property of SRS which has the right to edit, alter, copy, exhibit, publish or distribute this photo for purposes of publicizing its programs or for any other lawful purpose. Additionally, the delegate waives any right to royalties or other compensation arising or related to the use of the photograph.

SRS Tax ID #23-7181863



GROUP Registration Form

26th International Meeting On Advanced Spine Techniques

JULY 17-20, 2019 Amsterdam, The Netherlands | RAI Amsterdam Convention Centre

IMAST 2019
amsterdam
THE NETHERLANDS

Advance Registration Deadline: June 20, 2019 (Registrations will ONLY be accepted onsite after this date – no exceptions)

Completed registration forms should be emailed, faxed or mailed to the SRS Office. Online registration is available at www.srs.org/imast2019/registration.
Email: meetings@srs.org | Fax +1 414-276-3349 | Mailing Address: Scoliosis Research Society, 555 E. Wells Street, Suite 1100, Milwaukee, WI, 53202, United States

COMPANY/BILL TO INFORMATION

| | | |
|---|---------|-----------------|
| Company Name | | |
| Company Representative | SRS ID# | |
| Email Address (Invoice and all correspondence will be sent to this email) | | |
| Mailing Address | | |
| City | State | Zip/Postal Code |
| Country | | |

| Base Registration Fees* | Advance Registration On or Before June 20, 2019 |
|---|--|
| SRS Fellow – Physician | \$900 USD |
| SRS Fellow – Non-Physician | \$450 USD |
| SRS Emeritus Fellow | \$450 USD |
| Resident/Fellow/Medical Student | \$450 USD |
| Non-Member Physician | \$1,100 USD |
| Non-Member Non-Physician | \$550 USD |
| Industry Representative | \$1,150 USD |
| Delegates from Reduced Rate Countries** | \$400 USD |

SRS will verify member types and apply discounts where delegates are eligible.

* The delegate base registration fee includes entrance to all general and concurrent sessions, the IMAST exhibit hall, industry workshops, breaks, lunches, and the cases & cocktail sessions and the Welcome Reception on Wednesday, July 17.

**For information on countries that qualify for reduced rate registration, please visit the SRS website at www.srs.org/imast2019/registration.

PAYMENT INFORMATION

Group Registration Policy:

All Group Registrants must be completed and submitted by June 20, 2019. Registration name changes can be made through June 20, 2019 at no charge. After June 20 each name change will be charged an administrative fee of \$100 per name change. Any delegate not included on the group registration form will be treated as an individual registration; delegates registered as individuals will not be added to group registration invoices.

All delegates must have their own email address listed under their name.

Corporate Supporters and/or Exhibitors with complimentary registration codes; please indicate who the code is being applied to by writing the code next to the delegate's name. If no codes are written in, complimentary registrations will be applied to delegate registrations in the order they are listed on the form.

Invoice:

An invoice will be provided to company/group representative. This invoice will contain all registration fees for all delegates listed; all invoices must be paid by June 20, 2019. Any registration changes made onsite will be invoiced after the meeting.

Cancellation Policy:

All cancellations must be received in writing. Delegates may fax their cancellation to (414) 276-3349 or email it to meetings@srs.org. Delegates will receive a confirmation and refund within 14 days of receipt of their cancellation notice. SRS will grant a full refund, less a 10% processing fee, for cancellations received in writing on or before June 20, 2019. No refunds will be granted after June 20, 2019.
SRS Tax ID #23-7181863

Waiver:

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- ☐ Include me on the delegate list provided to exhibitors and workshop supporting companies so that they may send me information about their products, services and involvement at the meeting.
- ☐ Include me on any published delegate list including programs, mobile apps, etc.

For more information, please read our privacy policy (www.srs.org/about-srs/contact-us/privacy-policy).

DELEGATE INFORMATION

| Delegate 1 | | Discount Code: _____ |
|---|-----------------------|------------------------------|
| First (Given) Name | | |
| Last (Family) Name | | |
| Suffix (Jr., III, etc) | Degree (MD, PhD, etc) | SRS ID# |
| Delegate Email address — must be delegate's individual email | | |
| Institution | | |
| City | | Country (to appear on badge) |
| Physician <input type="checkbox"/> Non-Physician <input type="checkbox"/> Industry <input type="checkbox"/> Reduced Rate Country <input type="checkbox"/> | | |

| Delegate 2 | | Discount Code: _____ |
|---|-----------------------|------------------------------|
| First (Given) Name | | |
| Last (Family) Name | | |
| Suffix (Jr., III, etc) | Degree (MD, PhD, etc) | SRS ID# |
| Delegate Email address — must be delegate's individual email | | |
| Institution | | |
| City | | Country (to appear on badge) |
| Physician <input type="checkbox"/> Non-Physician <input type="checkbox"/> Industry <input type="checkbox"/> Reduced Rate Country <input type="checkbox"/> | | |

| Delegate 3 | | Discount Code: _____ |
|---|-----------------------|------------------------------|
| First (Given) Name | | |
| Last (Family) Name | | |
| Suffix (Jr., III, etc) | Degree (MD, PhD, etc) | SRS ID# |
| Delegate Email address — must be delegate's individual email | | |
| Institution | | |
| City | | Country (to appear on badge) |
| Physician <input type="checkbox"/> Non-Physician <input type="checkbox"/> Industry <input type="checkbox"/> Reduced Rate Country <input type="checkbox"/> | | |

| Delegate 4 | | Discount Code: _____ |
|---|-----------------------|------------------------------|
| First (Given) Name | | |
| Last (Family) Name | | |
| Suffix (Jr., III, etc) | Degree (MD, PhD, etc) | SRS ID# |
| Delegate Email address — must be delegate's individual email | | |
| Institution | | |
| City | | Country (to appear on badge) |
| Physician <input type="checkbox"/> Non-Physician <input type="checkbox"/> Industry <input type="checkbox"/> Reduced Rate Country <input type="checkbox"/> | | |

| Delegate 5 | | Discount Code: _____ |
|---|-----------------------|------------------------------|
| First (Given) Name | | |
| Last (Family) Name | | |
| Suffix (Jr., III, etc) | Degree (MD, PhD, etc) | SRS ID# |
| Delegate Email address — must be delegate's individual email | | |
| Institution | | |
| City | | Country (to appear on badge) |
| Physician <input type="checkbox"/> Non-Physician <input type="checkbox"/> Industry <input type="checkbox"/> Reduced Rate Country <input type="checkbox"/> | | |

*Please use additional forms to register more than 5 delegates.

**Delegate's personal email addresses are required. The company representative will be copied on all correspondence.

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