



**WEDNESDAY – 3 APRIL 2019**

<b>09.00-09.20</b>	<b>Introduction</b>
<b>09.20-10.55</b>	<b>BIOSPINE SESSION DISC REGENERATION</b>
09.20-09.35	Three prong attack for regeneration of the intervertebral disc: consideration of the degenerate niche Christine Le Maitre (Sheffield – United Kingdom)
09.35-09.50	MSC homing into degenerated IVD: A novel approach Mauro Alini (Davos – Switzerland)
09.50-10.05	Role of exosomes in cell biology Timothy Ganey (Atlanta – USA)
10.05-10.15	<i>Discussion</i>
10.15-10.25	Abstract
10.25-10.35	Abstract
10.35-10.45	Abstract
10.45-10.55	<i>Discussion</i>
<b>10.55-11.10</b>	<b>Coffee break, poster &amp; industrial exhibition</b>
<b>11.10-13.00</b>	<b>COMBINED ORS SPINE SECTION - BIOSPINE SESSION DISC DEGENERATION</b>
11.10-11.30	Mechanistic insights into spontaneous disc degeneration Makarand V. Risbud (Philadelphia – USA)
11.30-11.45	Organ culture models of disc degeneration Sybille Grad (Davos Switzerland)
11.45-12.00	Mechano-Immunosensing and disc degeneration Wuertz-Kozak Karin (Zurich – Switzerland)
12.00-12.15	Which factors contribute to anulus fibrosus weakening and failure? Insights from mechanobiology models Neidlinger-Wilke Cornelia (Ulm – Germany)
12.15-12.25	<i>Discussion</i>
12.25-12.35	Abstract
12.35-12.45	Abstract
12.45-12.55	Abstract
12.55-13.00	<i>Discussion</i>
<b>13.00-14.00</b>	<b>Lunch break, poster &amp; industrial exhibition</b>
<b>14.00-14.40</b>	<b>QUICK FIRE PRESENTATIONS</b>
14.00-14.05	Abstract
14.05-14.10	Abstract
14.10-14.15	Abstract
14.15-14.20	Abstract
14.20-14.25	Abstract
14.25-14.40	<i>Discussion</i>



- 14.40-16.20**      **BIOSPINE SESSION**  
**SPINAL FUSION**
- 14.40-14.55      Menagment of cervical spondylotic Myelopathy: laminectomy and instrumented fusion in lordosis  
Vincenzo Denaro (Rome – Italy)
- 14.55-15.10      Inadequate decompression in cervical spine surgery: how to avoid and manage  
James D. Kang (Boston – USA)
- 15.10-15.20      Novel cage design and method to boost spinal fusion  
Chris Arts (Maastricht – The Netherlands)
- 15.20-15.30      *Discussion*
- 15.30-15.40      BMP 2 in spinal fusion - clinical and experimental results  
Christian Hohaus (Dessau – Germany)
- 15.40-15.50      The mechanism of dural adhesion in the excessive fibrosis causing pain after spine surgery  
Joo Han Kim (Seoul – Korea)
- 15.50-16.00      Abstract  
16.00-16.10      Abstract
- 16.10-16.20      *Discussion*
- 16.20-16.35      **Coffee break, poster & industrial exhibition**
- 16.35-17.30**      **DEBATE SESSION**  
**MISS: ENDOSCOPIC VS OPEN VS TUBULAR SURGERY FOR MIGRATED LUMBAR DISC HERNIATION**  
Moderator: James D. Kang (Boston – USA) – Xifeng Zhang (Beijing – China)
- 16.35-16.50      Open solution – Why don't you do an easy, fast and cost-effective solution  
Zafer Orkun Toktas (Istanbul – Turkey)
- 16.50-17.05      Tubular solution – MIS tubular surgery is now a gold standard solution  
Roger Härtl (New York – USA)
- 17.05-17.15      Endoscopic solution – Let me talk about real MIS with the best value  
Jin-Sung Kim (Seoul – Korea)
- 17.15-17.30      *Discussion*
- 17.30-18.15**      **WORKING GROUP SESSION**  
**MEDS MEET THE VETS**
- 17.30-17.45      Veterinary spine diseases: relevant for humans?  
Björn Meij (Utrecht – Netherlands)
- 17.45-17.55      Abstract  
17.55-18.05      Abstract
- 18.05-18.15      *Discussion*
- 18.15              Closure
- 18.15**              **Welcome reception**



**THURSDAY – 4 APRIL 2019**

**09.00-09.40**

**QUICK FIRE PRESENTATIONS**

09.00-09.05 Abstract  
09.05-09.10 Abstract  
09.10-09.15 Abstract  
09.15-09.20 Abstract  
09.20-09.25 Abstract

09.25-09.40 *Discussion*

**09.40-11.05**

**COMBINED AOSPINE - BIOSPINE SESSION**  
**New MRI analysis for disc de/regeneration**

09.40-10.00 TBA  
Dino Samartzis (Chicago – USA)

10.00-10.20 In vivo spectroscopy to quantify biomarkers of painful disc degeneration  
Jeffrey Lotz (San Francisco – USA)

10.20-10.30 Abstract  
10.40-10.50 Abstract

10.50-11.05 *Discussion*

11.05-11.20 **Coffee break, poster & industrial exhibition**

**11.20-13.00**

**BIOSPINE SESSION**  
**CELL THERAPY**

11.20-11.35 Stem cells and biomaterials for the regenerative medicine of intervertebral disc: from clinical data to innovative concepts  
Jerome Guicheux (Nantes – France)

11.35-11.50 Exploring progenitor cell therapies for the intervertebral disc  
Benjamin Gantenbein (Bern – Switzerland)

11.50-12.00 Abstract

12.00-12.10 *Discussion*

12.10-12.20 Abstract  
12.20-12.30 Abstract  
12.30-12.40 Abstract  
12.40-12.50 Abstract

12.50-13.00 *Discussion*

13.00-14.00 **Lunch break, poster & industrial exhibition**

**14.00-15.30**

**COMBINED SICV&GIS - BIOSPINE SESSION**  
**MINIMALLY INVASIVE APPROACHES FOR ADULT SCOLIOSIS**

14.00-14.10 Certainties and indication of sagittal balance  
Cesare Faldini (Bologna - Italy)

14.10-14.20 Lateral approach: advantages and pearls  
Carlo Doria (Sassari - Italy)



14.20-14.30	Posterior approach: PLIF o TLIF?
14.30-14.40	<i>Discussion</i>
14.40-14.50	Minimally invasive management of complex patients with severe kyphosis and rotation Giuseppe Costanzo (Rome - Italy)
14.50-15.00	Use of bone marrow concentrated for posterolateral fusion Bernardo Misaggi (Milan - Italy)
15.00-15.10	Uncommon surgical cases
15.10-15.30	<i>Discussion</i>
15.30-15.45	Coffee break, poster & industrial exhibition
<b>15.45-17.00</b>	<b>BIOSPINE SESSION SPINAL CORD REPAIR/REGENERATION</b>
15.45-16.00	Injectable guiding materials for spinal cord repair Laura De Laporte (Aachen – Germany)
16.00-16.15	Role of TRPV4 channel in spinal cord injury Inbo Han (Seongnamsi – South Korea)
16.15-16.30	Clinical trial of spinal cord injury with neural lineage stem cells Keung Nyun Kim (Seoul – Korea)
16.30-16.40	<i>Discussion</i>
16.40-16.50	Abstract
16.50-17.00	Abstract
17.00-17.10	<i>Discussion</i>



**17.00-18.00**

**DEBATE SESSION**

**DISC REGENERATION: DO WE REALLY NEED CELLS FOR DISC REGENERATION?**

17.00-17.15 Presentation

17.15-17.30 Presentation

17.30-17.45 Presentation

17.45-18.00 *Discussion*

**18.00-18.40**

**WORKING GROUP SESSION**

18.00-18.10 Presentation

18.10-18.20 Presentation

18.20-18.30 Presentation

18.30-18.40 *Discussion*

18.40 Closure



**FRIDAY – 5 APRIL 2019**

09.00-09.50

**QUICK FIRE PRESENTATIONS**

09.00-09.05 Abstract  
09.05-09.10 Abstract  
09.10-09.15 Abstract  
09.15-09.20 Abstract  
09.20-09.25 Abstract  
09.25-09.30 Abstract  
09.30-09.35 Abstract

09.35-09.50 *Discussion*

**09.50-11.10**

**COMBINED NSPINE – BIOSPINE SESSION  
ROBOTICS AND NAVIGATION IN SPINE SURGERY**

09.50-10.05 TBA  
Broniek Boszczyk (Tutzing – Germany)

10.05-10.20 Presentation

10.20-10.35 Robot assisted spine surgery: pitfall and limitation  
Yong Eun Cho (Seoul – South Korea)

10.35-10.45 *Discussion*

10.45-10.55 Presentation

10.55-11.00 Abstract

11.00-11.10 *Discussion*

11.10-11.25 **Coffee break, poster & industrial exhibition**

**11.25-13.00**

**BIOSPINE SESSION  
BIOMATERIALS FOR SPINE SURGERY**

11.25-11.40 Bone graft substitutes in spine  
Norbert Passuti (Nantes – France)

11.40-11.55 Antibacterial effect of cobalt-chromium alloy: *in vitro* and *in vivo* evaluation  
Kota Watanabe (Tokyo – Japan)

11.55-12.10 The biomechanics of novel surface technologies at the bone interface  
Lisa Ferrara (Southport – USA)

12.10-12.20 *Discussion*

12.20-12.30 Designing biomaterials and scaffolds with osteoinductive properties  
Maria Chatzinikolaidou (Crete – Greece)

12.30-12.40 Abstract

12.40-12.50 Abstract

12.50-13.00 *Discussion*

**13.00-14.00 Lunch break, poster & industrial exhibition**



**14.00-17.00**

**SATELLITE SYMPOSIUM  
RESPINE PROJECT**

14.00-14.20 Introduction to ReSpine project  
Christian Jorgensen (Montpellier – France)

14.20-14.40 Presentation

14.40-15.00 Presentation

15.00-14.15 *Discussion*

14.55-15.10 Presentation

15.10-15.25 Presentation

15.25-15.35 Presentation

15.35-15.45 *Discussion*

14.45-16.00 Presentation

16.15-16.30 Presentation

16.30-16.45 Presentation

16.45-17.00 *Discussion*

**17.00 Summary and farewell**