

08:30 **Welcome address** *J Hilborn*

Drug delivery & bioactive components, *Chair: S Cool, Co-chair: A Hoess*

09:00 **Invited talk: The paracrine activity of implanted mesenchymal stem cells: a new regenerative medicine approach** *R Cancedda*

09:30 **Gallium-doped calcium phosphates as a new approach for the local delivery of antiresorptive species** *B Bujoli*

09:45 **Injectable hyaluronic acid hydrogel for bone tissue engineering** *O P Varghese*

10:00 Coffee

Drug delivery & bioactive components continued, *Chair: J Hilborn, Co-chair: O P Varghese*

10:30 **Invited talk: Lowering the Efficacious Dose of BMP-2 using Heparan Glycosaminoglycans** *S Cool*

11:00 **Antibiotic-loaded calcium phosphate cements and foams: Relationship between porosity and release behaviour** *D Pastorino*

11:15 **Injectable, Settable Polymer/ β -TCP Bone Grafts for Delivery of rhBMP-2** *S Guelcher*

11:30 GRIBOI General Assembly

12:00 Lunch with posters 1

Bone substitution, stabilization and regeneration, *Chair: J Chang, Co-chair: X Yang*

13:45 **Invited talk: Functionalized calcium phosphates: The role of crystal structure** *E Boanini*

14:15 **Degradation & characterisation of new biphasic calcium phosphate cements** *S Gallinetti*

14:30 **Study on silicate bioceramics** *J Chang*

14:45 **Invited talk: To be announced** *S McCullen*

15:15 **A New way of Forming Calcium Phosphate Cements Using Bioactive Glasses as Reactive Precursors, Part 1: Theory and Background Studies** *R Hill*

15:30 **Ultrasonication for the delivery of the hydraulic calcium-phosphate paste** *G Baroud*

15:45 Coffe

Clinical session 1, *Chair: S Larsson, Co-chair: M Montazerolghaem*

16:15 **Invited talk: Bioactivity and cytotoxic tests are antagonist** *M Bohner*

16:45 **Self hardening Macroporous Biphasic Calcium Phosphate bone void filler for bone reconstruction. Animal study and Human data** *G Daculsi*

17:00 **Invited talk: The use of hydrogel for craniofacial bone repair in humans** *T Engstrand*

17:30 **New Palliative Intervention in Painful Metastatic Bone Disease: The OsteoCool™ System** *J Woo*

17:45 **END of talks day 1**

19:00 Dinner

Clinical session 2, Chair: Z Werner, Co-chair: G Hulsart-Billström

- 08:30 **Invited talk: Pathogenesis and treatment of periprosthetic joint infection** Z Werner
- 09:00 **Combination Percutaneous Threaded Screw and Methyl Methacrylate Stabilization of Cancer and Post Radiation Induced Pelvic Fractures** S Tutton
- 09:15 **Vertebral Augmentation with targeted cement deposition technique after channels creation using a nitinol wire, the "Blazer" system** S Tutton
- 09:30 **Comparison Between Radiofrequency Targeted Vertebral Augmentation, Balloon Kyphoplasty and Vertebroplasty** M Lorio
- 09:45 **Early experience with a new intravertebral PEEK / biomaterial implant** S Tutton
- 10:00 Coffee

Sponsored Workshops, Chair: P Procter, Co-chair: D Ossipov

- 10:30 **CERAMENT workshop (organized by Bonesupport)**
The science behind it, clinical use and hands on.
- 11:30 **Vexim workshop**
11:30: **Height restoration and maintenance using the SpineJack procedure** A Krüger
11:40: **Measuring anatomical restoration of vertebral compression fractures** DC Noriega
- 11:50 **Medtronic workshop**
Biomechanics of a new Inflatable Bone Tamp and First Case series M Kotrba
- 12:10 Lunch with posters 2

Biomechanics, Chair: S Ferguson, Co-chair: A López

- 14:00 **Invited talk: Biomechanics and mechanobiology in biomaterials research and tissue regeneration** R Müller
- 14:30 **Screw Augmentation using CaP Injectable Bone Cement** C J Brown
- 14:45 **Injectable and flexible tricalcium phosphate/biopolymer composites for bone regeneration** Y Maazouz
- 15:00 **Vertebroplasty: Dependency of the Subsequent Fracture Risk Reduction on the Injection Location** R Widmer
- 15:15 Coffee

Biomechanics continued, Chair: R Müller, Co-chair: C Öhman

- 15:45 **Invited talk: In Silico or In Vitro for Augmentation Studies: How, Why and When?** S Ferguson
- 16:15 **Development of a new method for imaging the bone-cement interface under load for FE model validation** S Sikora
- 16:30 **A validated finite element study comparing the use of calcium phosphate and PMMA cements for the augmentation of traumatically fractured vertebrae** S Tarsuslugil
- 16:45 **Effect of Cement Augmentation technique on the Fatigue and Pullout Strength of Pedicle Screws** R Kueny
- 17:00 **END of talks day 2**

17:15-19:15 **Workshops with snacks**

Clinical, J Hirsch, T Engstrand, and S Larsson, Room: 4003

SpineFX - The role of cadaveric models in pre-clinical testing, S Ferguson, Room: 4004

Future trends, Chair: *H Engqvist*, Co-chair: *S Kootala*

- 08:30 **Invited talk: Self-Assembling Bioactive Matrices for Tissue Regeneration** *S Stupp*
- 09:00 **Vascular network formation in tissue engineered constructs using endothelial-like-cells derived from mesenchymal stromal cells** *K Janeczek Portalska*
- 09:15 **Intraosseous forming implants for bone metastases treatment through locally combined hyperthermia and chemotherapy** *M Mohamed*
- 09:30 **A New way of Forming Calcium Phosphate Cements Using Bioactive Glasses as Reactive Precursors: Part 2 Experimental Cements** *N W Kent*
- 09:45 Coffee

Future trends continued, Chair: *S Stupp*, Co-chair: *O Podiyan*

- 10:15 **Invited talk: Enhancing screw fixation in poor quality cancellous bone: Present and future options** *P Procter*
- 10:45 **CFD-Simulation of Percutaneous Vertebroplasty** *S Kolmeder*
- 11:15 **Radiopaque Magnesium Phosphate Cements** *G Mestres*
- 11:30 **Final remarks and awards** *H Engqvist*
- 12:30 Lunch (bag)

