

# Preliminary Program

## 2005 March 19

8:30-9:00 Opening ceremony

9:00-10:15 Injectable biomaterials

### **Invited lecture**

**9:00-9:15 Jacques Lemaitre** (Switzerland) Resorbable bone substitute based on calcium phosphates: state of the art

### **Presentation**

**9:15-9:23 Wang JS.** (Sweden) Bone integration of injectable calcium phosphate with calcium sulphate in bone defect

**9:23-9:31 Chai F.** (China) In vitro studies of the influence of pre-cultural conditioning method on osteoblast reactions of a new type of injectable calcium cement material

**9:31-9:39 Legrand A.P.** (France) Stability on storage of a dual-paste injectable brushite cements. A <sup>31</sup>P solid-state RMN study

**9:39-9:47 Boschini F.** (France) Guided Tissue Regeneration membranes with controlled delivery properties of chlorhexidine by their functionalization with cyclodextrins

**9:47-9:55 Dai Honglian** (China) Effect Factors on the Properties of Ca-P Composite Bone Cement

**9:55-10:03 Lin Wei** (China) Study of Self-hardening Bio-glass and Solidifying Mechanism

10:15-10:30 coffee break

10:30-12:00 Medical implants

### **Invited lecture**

**10:30-10:45 Dominique Poitout** (France) Allograft with cortical bone and cartilage tissue for repair of large bone defect

**10:45-11:00 Ross M. Wilkins** (USA) The use of calcium sulfate as a biodegradable carrier and bone replacement material

**11:00-11:15 Kaiming Chan:** Bone-tendon junction healing (Hong Kong)

### Presentation

**11:15-11:23 Chen Hong** (China) A Generic Route to Biocompatible Silicone Elastomer

**11:23-11:31 Leena Ylikontiola** (Finland) Clinical application of bioabsorbable PLDLA plates in treatment of mandibular fractures

**11:31-11:39 Jarmo Kangas** (Finland) Tissue reactions to PLDLA suture in rabbits Achilles tendon

**11:39-11:47 Marie-France Guidoin** (Canada) 3D scaffolds for orbital floor repair: physico-chemical characterization of Open Cell Polylactic Acid (OPLA<sup>®</sup>)

12:00-13:00 lunch break

13:00-15:15 Tissue engineering/ Medical implants

**Invited lecture**

**13:00-13:15** Chou Laisheng (USA) Human bone tissue engineering

**13:15-13:30** Mauro Alini (Switzerland) Effect of joint motion on chondrocytes seeded-polyurethane scaffold for cartilage tissue engineering

**Presentation**

**13:30-13:38** Stoop R. (Germany) Evaluation of PLDLA scaffolds for cartilage tissue engineering

**13:38-13:46** Oudina K. (France) Fibrous tissue engineering in the subcutis of rats using PLDLA scaffold immunohistochemical analysis

**13:46-13:54** Zhou Guangdong (China) Related researches of constructing tissue engineered cartilage using adult stem cells and biodegradable polymers

**13:54-14:02** Nureddin Ashammakhi (Finland) Fibrous tissue engineering in the subcutis of rats using PLDLA scaffold immunohistochemical analysis

**14:02-14:10** Stiegler P. (Austria) Microencapsulation of porcine pancreas cells with sodium cellulose sulfate (NaCS) to create a bioartificial pancreas

**14:10-14:18** Wu Chengtie (China) A Novel Bredigite Porous Scaffold for Bone Tissue Engineering: Preparation and In Vitro Characteristics

**14:18-14:26** Wang Zhen (China) A New Cust-made Artificial Hemi-Knee Joint By Computer Assisted Design

**14:26-14:34** François Kelberine (France) Novel biomaterials for fixation

**14:34-14:42** Chu Fengmin (Taiwan) The Study of Apoptosis of Rabbit Synoviocytes Induced by Particulate Joint Replacement Materials

**14:42-14:50** Jia Qingwei (China) Bate titanium alloys for total joint prosthesis: fabrication, X-ray diffraction analysis, biomechanics and biocompatibility

**14:50-14:58** Petrus Viitanen (Finland) PLGA rods with diclofenac releasing properties

**14:58-15:06** Guo Zheng (China) Reconstruction using the Modular Hemipelvic Prostheses Following Excision of Periacetabular Tumors

15:15-15:30 coffee break

15:30-17:35 Gene and cell therapy/Medical implants

**Invited lecture**

**15:30-15:45** James T. Triffitt (UK) Stem cell therapy in the musculoskeletal system

**15:45-16:00** Laurent Sedel (France) New ways for the treatment of large bone substance loss

**16:00-16:15** Chengkung Cheng (Taiwan) Issues of bone-prosthesis interface

**Presentation**

**16:15-16:23** Tang Tingting (China) Repair of experimental femoral head necrosis in goats with  $\beta$ -TCP / BMP-2 gene transfected stem cells

**16:23-16:31** Yixian Qin (USA) Dynamic mechanotransduction and its role in osteointegration and adaptation

**16:31-16:39** Yue Bing (China) BMP2 engineered MSCs/TCP repair bone defects in aged rats

**16:39-16:47 Gan Yaokai** (China) Clinical observation of enrichment technique of bone marrow stem cell (BMSC) in promoting osseous repair and regeneration: A primary report

**16:47-16:55 Penel G.** (France) Influence of radiotherapy on membranous bone vascularization as reveals by intra vital study on rabbit.

**16:55-17:03 Zhang Wei** (China) The experimental studies of cpc/rhBMP-2 compounds implanted in bone os rabbits

**17:03-17:11 Meng Sheng** (China) Biodegradable and Hemocompatible Phosphorylcholine end-capped Poly- $\epsilon$ -caprolactone

**17:11-17:19 Blanchemain N.** (France) Vascular prostheses with controlled release of antibiotics: Biocompatibility of PET prostheses grafted with CDs

**17:19-17:27 Zhu Sijun** (China) Effect of gelation conditions on morphology and performance of polyether sulfone membranes by a dual-bath coagulation method

**17:27-17:35 Guo Zheng** (China) Reconstruction using the Modular Hemipelvic Prostheses Following Excision of Periacetabular Tumors

**17:35-17:43 Xie Y.Z.** (Franch) Tissue reactions of bone substitutes: report of 36 cases in orthopaedics

6:00 banquet

## **2005 March 20**

8:30-10:30 Tissue engineering/Hybrid materials

### **Invited lecture**

**8:30-8:45 Cao Yilin** (China) Bone engineering: large animal studies and clinical application.

**8:45-9:00 Michael Andre Rauschman** (Germany) Therapeutic use of antibiotic-load calcium-sulfate pellets spinal surgery

### **Presentation**

**9:00-9:08 Ding Jiandong** (China) Polymeric Scaffolding in Tissue Engineering: Injectable and Preshaping

**9:08-9:16 Steffens G.C.M.** (Germany) The Development of Matrices with Enhanced Angiogenic Capabilities

**9:16-9:24 Yang Guanghui** (China) Biological Behaviors of Keratinocytes Cultured on Chitosan-Gelatin Membrane with Different Ratio

**9:24-9:32 Gaissmaier C.** (Germany) Increased proliferation and matrix synthesis but dedifferentiation of human articular chondrocytes in monolayer (2D) and three-dimensional (3D) alginate cultures in the presence of human platelet supernatant

**9:32-9:40 Yao Ch.** (Germany) Enhancing angiogenesis in collagen matrices: an evaluation with the chorioallantois membrane assay

**9:40-9:48 Damien E** (UK) In vivo characterisation of a novel composite hydrogel made with calcium phosphate particles on a hydrophilic matrix of poly-vinyl alcohol for vertebral arthroplasty

**9:48-9:56 Xie Y.Z.** (Franch) Using Perfusion Culture System for Stem Cell Proliferation inside Ceramic Scaffold

**9:56-10:04 Patrick Sharrock** (France) Artificial bone material

**10:04-10:12 Wu Chengtie** (China) A Novel Bredigite Porous Scaffold for Bone Tissue Engineering: Preparation and In Vitro Characteristics

10:30-10:45 coffee break

10:45-12:00 Hybrid materials

**Invited lecture**

**10:45-11:00 Martel B.** (France) Biomaterials with a tailored controlled drug-delivery functional based on the “host-guest” complex forming properties of cyclodextrins

**11:00-11:15 Dai Kerong** (China) Ti based materials and osseointegration

**Presentation**

**11:15-11:23 Li Xiaosheng** (China) The Artificial Eye-Eats of Hydroxyapatite and Bioactive MicroCrystalline Glass

**11:23-11:31 Dabernig W.** (Austria) Composite scaffold of bioactive glass and polymers for bone tissue engineering

**11:31-11:39 Poulhier C.** (France) Functionalisation of hydroxyapatite surfaces by organic molecules grafting

**11:39-11:47 Xu Sen** (China) Optimization of preparation of DHAQ- loaded PELGE -NP using CCD

12:00-13:00 lunch break

13:00-15:15 Nanotechnology in biomaterials/Hybrid materials

**Invited lecture**

**13:00-13:15 Li Panjian** (USA) Biomimetic hybrid coating composed of osteocalcin and nano-crystalline apatite.

**13:15-13:30 Lin Jiaping** (China) Drug Delivery System Based on Micelles Formed by Polypeptide Copolymers

**Presentation**

**13:30-13:38 Wang John** (Singapore) Bioactive Mesoporous Structures and Thin Films by Copolymer Templating

**13:38-13:46 Bohner M.** (France) Nanostructured apatitic bone substitutes and their protein adsorption

**13:46-13:54 Chen Xiaofeng** (China) The Synthesis of Nanosize Bioglass in The System CaO-P2O5-SiO2 and Preparation of Bone Tissue Engineering Scaffolds

**13:54-14:02 Wang Yi** (China) Repairing of Bone Defects in the Tibia of Rats in vivo with Novel Mesoporous Bioactive Glasses

**14:02-14:10 Zhang Yong** (Singapore) Bi-functional chitosan nanoparticles for bio-applications

**14:10-14:18 Mo Xiaomei** (China) Investigation of biodegradable nanofibers in tubular scaffolds for tissue regeneration

**14:18-14:26 Ren Jie** (China) Preparation and characterization of fenofibrate-loaded PLA-PEG microspheres

**14:26-14:34 Zhang Z.G.** (China) The Synthesis and Antibacterial activity of nano MgO

**14:34-14:42 Von Walter** (Germany) Porous TiO<sub>2</sub>/Glass/Collagen hybrids: use of heparinized collagen as a reservoir for the osteoinductive factor BMP-2

**14:42-14:50 Ren Jie** (China) In situ polymerization and properties of poly D,L-lactide/nano-hydroxyapatite composites

15:15-15:30 coffee break

15:30-17:30 Bioceramics/ Others

**Invited lecture**

**15:30-15:45 Chang Jiang** (China) Development of Ca-Si based bioactive ceramics for bone repair.

**15:45-16:00 Paul. R. Kim** (Canada) metal on metal technology for resurfacing hip arthroplasty

**Presentation**

**16:00-16:08 Patrick Frayssinet** (France) New biomedical applications for hydroxyapatite ceramics

**16:08-16:16 Hornez J.C.** (France) Synthesis and properties of porous phosphocalcic bioceramics

**16:16-16:24 Liu Xuanyong** (China) Improvement in bioactivity of single crystalline silicon wafer

**16:24-16:32 Oudadese H.** (France) PIXE, NAA and biological studies of the in vivo behaviour of a synthetic aragonite biomaterial

**16:32-16:40 Ni siyu** (China) Preparation and characterization of Forsterite (Mg<sub>2</sub>SiO<sub>4</sub>) bioceramics

**16:40-16:48 Lü Xiao-ying** (China) Study of metal ion cytotoxic mechanism based on gene expression microarray technology

**16:48-16:56 Amédée J.** (France) RGD-CONTAINING PEPTIDES MAY ACTIVATE OSTEOPROGENITOR CELLS AND BONE REGENERATION IN ADDITION TO PROMOTE COOPERATION WITH VASCULAR CELLS

**16:56-17:04 Gamal Baroud** (Canada) Laboratory measurements of vertebral hydrostatic pressure in a simulated vertebroplasty

**17:04-17:12 Yves DeBacker** (France) Caractérisation physico-chimique d'un nouveau biomateriau pour la fixation arthroscopique

**17:12-17:20 Yap Fung-Ling** (Singapore) Micropatterning of proteins via self-assembly of polystyrene microspheres

**17:20-17:28 Yohena S.** (Japan) Fluorinated diamond-like carbon films for blood-contacting medical devices

6:00 dinner