SICOT/SIROT 2008
XXIV Triennial World Congress
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ABSTRACTS

Produced by ELSEVIER
08:00-09:00  CTL – Foot & Ankle: Postural Deformities

**Moderators:** Margaret WONG (Hong Kong) & Henry Siu Fai YIP (Hong Kong)

**BIOMECHANICS OF PLANOVALGUS AND CAVOVARUS**
Michael STEPHENS (Ireland)

**ADULT ACQUIRED FLATFOOT**
Margaret WONG (Hong Kong)

**CAVOVARUS CORRECTION**
Michael STEPHENS (Ireland)

**PERONEAL SPASTIC FLATFOOT (TARSAL COALITION)**
Tsukasa KUMAI (Japan)

09:00-10:30  Free Papers – Basic Science: Antibiotic Release / Articular Cartilage, Imaging & Reconstruction

**Moderators:** Erdal CILA (Turkey) & William LU (Hong Kong)

17891  **OPTIMAL LOCAL DOSAGE OF HOUSEKEEPING ANTIBIOTICS TO INHIBIT S. AUREUS WITHOUT INDUCING OSTEOBLAST NECROSIS: IN VITRO STUDY**
Kit Ying LEUNG, Kelvin Wai Kwok YEUNG, Richard KAO, Paul CHU, Kenneth CHEUNG (Hong Kong)

17914  **AN ANTI-BACTERIAL COATING IN DENTAL IMPLANT USED IN ORTHOPAEDICS/ FEASIBILITY STUDY OF ANTI-BACTERIAL COATING IN DENTAL IMPLANT FOR ORTHOPAEDIC USE**
Kit Ying LEUNG, Kelvin Wai Kwok YEUNG, Richard KAO, Paul CHU, Kenneth CHEUNG (Hong Kong)

17953  **AN IN VITRO GENTAMYCIN RELEASE STUDY ON STRONTIUM CONTAINING HYDROXYAPATITE (SR-HA) BIOACTIVE BONE CEMENT COMPARED WITH POLYMETHYL METHACRYLATE (PMMA)**
Wai Ching LIU, Chi Tak WONG, William Weijia LU, Richard KAO (Hong Kong)

16757  **HISTOLOGICAL ASSESSMENT OF DEGENERATION OF CRUCIATE LIGAMENTS IN OSTEOARTHRITIC KNEES AND THEIR ASSOCIATION WITH CLINICAL AND FUNCTIONAL STATUS OF THE KNEE JOINT**
Akshay GOEL, Aditya AGGARWAL, Bishan Das RADOTRA, S.S. GILL (India)

17757  **REGIONAL CHANGES OF T1ρ AND T2 RELAXATION OF ENZYMATICALLY DEGRADED PORCINE PATELLAR CARTILAGES IN VITRO**
Zhiyang ZHOU, Xuenong ZOU, Steffen RINGGAARD, Haisheng LI, Lijin ZOU, Michael BENDTSEN, Casper FOLDGARD, Hans STØDKILDE-JØRGENSEN, Cody BÜNGER (Denmark)

18071  **3D-T1ρ IMAGING AND QUANTITATION OF ARTICULAR CARTILAGE AT 7.0T**
Xuenong ZOU, Zhiyang ZHOU, Steffen RINGGAARD, Haisheng LI, Lijin ZOU, Hans STØDKILDE-JØRGENSEN, Cody BÜNGER (Denmark)

18100  **COMPARISON OF THERAPEUTIC EFFECT OF ENZYMATIC HYDROLYZED COLLAGEN AND GLYCOSAMIN**
Tomas TRČ (Czech Republic)

18262  **3.0T MRI IN FOLLOW-UP AFTER MICROFRACTURING - DO RELATIVE T2 VALUES IN REPAIR TISSUES CORRELATE WITH THE KOOS SCORE?**
Florian KUTSCHA-LISSBERG, Lukas NEGRIN, Stephan DOMAYER, Christian GÄBLER, Vilmos VÉCSEI (Austria)

18471  **ISOLATED UNICOMPARTMENTAL OSTEOARTHRITIS OF THE KNEE: DIFFERENCE IN DISTRIBUTION OF ARTHRITIC LESIONS**

10:30-11:00  Break / Poster Discussion
Bacterial adhesion becomes an important event in the pathogenesis of bacterial infection. Plasma surface modification, with nitrogen layer, to resist bacterial activity has successfully been implemented to dental implants [1]. We hypothesize that same surface modification can be applied to orthopedic and suppress bacterial attachment. This study aims to investigate the feasibility of antibacterial ability of medical grade titanium alloy treated with nitrogen plasma immersion ion implantation (PIII). Surface roughness and depth profile of N-PIII samples are determined by atomic force microscopy and X-ray photoelectron spectroscopy. Since S. aureus is found in orthopedic post-op infection, an overnight culture of this bacterium in 1X10^8/ml CFU is prepared for colony forming unit counting. In surface roughness measurement, N-PIII modified sample seems to be rougher than the control. The surface morphology is changed after PIII. XPS results reveal the thickness of nitrogen-rich layer ranges from 19.88nm to 99.4nm. Therefore, nitrogen plasma is successfully implanted into the substrate. In CFU counting, the numbers of attached bacteria of N-PIII samples are about 3 folds higher than the control. It therefore suggests N-PIII Ti surface does not have an ability to reduce S. aureus adhesion. It should understand the bacteria in oral are different from S. aureus. Nitrogen plasma treated sample can suppress the adhesion of oral bacteria and salivary protein, but not to that bacterium. Therefore, a concern must be taken if this surface coating is used as antibacterial layer in orthopedic implants. [1] J. Oral Implant Vol.XXIX No.2.2003.