

## POSTER PRESENTATIONS

## OSTEOPOROSIS

- P1 Kwok Sui Leung\***  
Enhancement on normal and osteoporotic fracture healing using Low Intensity Pulsed Ultrasound (LIPUS)
- P2 Win-Hoi Cheung**  
Stimulating effect of low-magnitude high-frequency vibration on angiogenesis during fracture healing in rat model
- P3 Kwok Sui Leung\***  
Low-magnitude high-frequency vibration accelerated callus remodelling in osteoporotic rat femoral fracture
- P4 Jörg Goldhahn**  
Does osteoporosis increase complication risk in surgical fracture treatment – a protocol combining new endpoints
- P5 Peter Smitham**  
Monobutyrin- an angiogenic growth factor and its effect on fracture healing in an ovariectomised rodent model
- P6 Tomoyuki Noda**  
Treatment of proximal humeral fractures with an intramedullary nail in elderly patients

## HIP FRACTURE

- P7 Yoshinobu Watanabe\***  
Predictors of recovery in mobility at one year following hip fracture in independent community and household ambulators: a one year prospective cohort study
- P8 Amy Hoang-Kim**  
Functional status and disability tools in hip fracture RCTS are not pragmatic enough
- P9 Amy Hoang-Kim**  
Quality reporting: trials lack citations of indices and scales to assess disability
- P10 Jacob Cartner**  
Clinical assessment of a novel trochanteric antegrade nail for proximal femoral fracture fixation
- P11 Martha Hoque**  
Surgical treatment and management of hip fracture patients: leading expert opinions
- P12 Amy Hoang Kim**  
Hip-specific composite scoring systems: a content comparison based on the international classification of functioning, disability and health (ICF)
- P13 Amy Hoang Kim**  
The impact of comorbidities in elderly patients with hip fracture: a survey of experts' opinions

## TIBIAL FRACTURE

- P14 Mohit Bhandari**  
The critical sized defect in the tibia: is it critical? Results from the sprint trial
- P15 Mohit Bhandari\***  
Prognostic factors for predicting reoperations after intramedullary nailing of the tibia
- P16 Mohit Bhandari**  
Sample size matters! The risk of stopping orthopaedic trials too early
- P17 Mohit Bhandari**  
The somatic pre-occupation and coping (SPOC) questionnaire predicts functional recovery in tibial fracture patients
- P18 Mohit Bhandari**  
Economic evaluation of reamed versus unreamed intramedullary nailing in patients with closed and open tibial fractures: results from the study to prospectively evaluate reamed intramedullary nails in patients with tibial fractures (SPRINT)
- P19 Mohit Bhandari**  
Do surgeon and centre volumes impact the outcomes of closed tibia fractures?
- P20 Mohit Bhandari**  
The impact of clinical data on the evaluation of tibial fracture healing
- P21 Florian Högel**  
Comparison of reamed intramedullary compression nails vs. reamed intramedullary nailing without compression in tibia shaft fractures

## ANKLE FRACTURE

- P22 Sean McKenna**  
Is there a role for locking plates in distal tibial fractures?
- P23 David Hak**  
Fixing the almost healed ankle fracture – is the surgery, reduction, and complication different from acute open reduction and internal fixation?
- P24 David Hak**  
Postoperative surgical site infection following acetabular fixation

## WRIST FRACTURE

- P25 Kohji Kuriyama**  
Comparison of palmar locking plating and bridging type external fixation for distal radius fracture
- P26 Tomoyuki Noda**  
Clinical outcomes and postoperative complications of locking plate fixation

\* oral presentation in session I

# POSTER PRESENTATIONS

## CLAVICLE FRACTURE

### **P27 Terumasa Boku**

Stability of internal fixation for distal clavicular fractures

### **P28 Yasunori Shimamura**

Minimally invasive plate osteosynthesis for clavicle shaft fractures

## FRACTURE BIOLOGY

### **P29 Takashi Iwakura (Sang Yang Lee )**

Circulating mesenchymal progenitor cells increase in arterial and venous blood after fracture

### **P30 Thomas Varecka\***

The influence of hemorrhagic anemia on fracture healing

### **P31 Britt Wildemann**

Bisphosphonate and bone regeneration

### **P32 Gerhard Schmidmaier**

The effect of the inhibition of angiogenesis on bone healing

### **P33 Terence Savaridas**

The effects of bisphosphonate therapy in fracture healing with rigid compression plating

### **P34 Peter Smitham**

The  $\beta$ -blocker propranolol improves mechanical strength in rat fracture repair

### **P35 Patric Garcia**

Erythropoietin stimulates fracture healing in small segmental defects in mice

## BIOMECHANICS

### **P36 María José Gómez-benito**

Influence of dynamical loads on fracture healing: a computational and experimental study

### **P37 Jacob Cartner**

Use of a single lag screw, helical blade, or two integrated interlocking screws to evaluate cyclic cut-out failure in intramedullary nails

### **P38 Sebastian Eberle\***

Evaluation of risk for secondary fracture after removal of a new femoral neck plate for intracapsular hip fractures

### **P39 Sebastian Eberle**

Additional fixed-angle plate improves rotational stability and healing in subtrochanteric fractures fixated by intramedullary nail

## ASSESSMENT

### **P40 Takahiro Niikura**

Diagnosis of venous thromboembolism in fractures of pelvis and lower extremities

### **P41 Harry van Lenthe\***

Peri-implant bone microarchitecture influences implant stability

### **P42 Caroline Grant**

Creation of a validated 3D finite element model of an ovine tibia

### **P43 Carolin Schwarz**

Histological analysis of the processes underlying non-healing of bone defects in a rat model

## META-ANALYSIS

### **P44 Mohit Bhandari**

Outcome assessment in orthopaedic trials: is it good enough?

### **P45 Mohit Bhandari**

Twenty years of meta-analyses in orthopaedic surgery: has quality kept up with quantity?

## VALIDATION STUDIES

### **P46 Jinn Lin\***

Applications of artificial neural networks and genetic algorithms in multiobjective design optimization of spinal pedicle screw

### **P47 Mohit Bhandari**

The dynamics of outcome assessment: an analysis of the SPRINT tibial fracture trial

### **P48 Mohit Bhandari\***

Estimating patient recruitment in orthopaedic randomized controlled trials

### **P49 Mohit Bhandari**

Increasing the response rate to surveys: how important is academic prestige to orthopaedic surgeons?

### **P50 Sabine Goldhahn\***

Cross-cultural adaptation and validation of two knee function scores for Japanese-speaking patients

### **P51 Henry Ahn**

Study design methodology in vertebral fracture studies: what should we consider?

### **P52 Ian McCarthy**

*In vivo* measurement of the stiffness of regenerate bone in distraction osteogenesis of the tibia using RSA, CT and load measurement

\* oral presentation in session I