



ANZORS 26th Annual Scientific Meeting

06-08 October 2021

Online Conference

Short Program



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Day 1 (Wednesday October 06)

10:30-10:45 (Melbourne time)	ANZORS President's welcome: A/Prof Egon Perilli		
10:45-11:15 Session chair: A/Prof Egon Perilli	Keynote: Dr Sheanna Maine, Griffith University, Brisbane, Queensland, Australia "Challenges in Paediatric Orthopaedics"		
11:15-11:30 Morning tea & poster viewing			
11:30-12:30	First name	Surname	Abstract title
Podium 1 Session chair: Dr David Musson	Scott	Bolam	Obesity impairs enthesis healing after rotator cuff repair in a rat model
	Jun	Yuan	PINK1-mediated mitophagy in osteocytes contributes to glucocorticoid-induced osteocytic osteolysis
	Daniel	Wills	Healing of iliac crest cancellous autograft donor site in an adult ovine model
	Samantha	Hefferan	Histological characteristics of different human tendons
	Samuel	Bennett	Gene mining the dental and skeletal fields of the collaborative cross population
12:30-12:45 Break & poster viewing			
12:45-13:45	First name	Surname	Abstract title
Podium 2 Session chair: Prof Ashvin Thambyah	Sanaa	Zaki	Investigating the predictive utility of a mouse model of post-traumatic osteoarthritis for testing the symptom and disease modifying effect of therapeutic agents
	Maged	Awadalla	Knockout cystic fibrosis rat trabecular bone in the proximal tibia has a deficit through adolescence
	Iman	Roohani	Synthetic bone-like structures through omnidirectional ceramic bioprinting in cell suspensions
	Peilin	Chen	Fabrication of bioactive braided collagen rope with exceptional mechanical strength for anterior cruciate ligament reconstruction
13:45-14:15 Lunch break & poster viewing			
14:15-15:15	First name	Surname	Abstract title
Podium 3 Session chair: Dr Jiao Jiao Li	William	du Moulin	Shape differences in the semitendinosus following tendon harvesting for anterior cruciate ligament reconstruction
	Sophie	Rapagna	Relationships between cartilage thickness and subchondral bone in knee osteoarthritis and controls: a systematic mapping
	Pholpat	Durongbhan	A novel micro-computed tomography imaging protocol for reproducible quantitative morphometric analysis (QMA) of the mouse knee
	Aaron	Fox	Subscapularis muscle function following the Latarjet procedure
	Luca	Modenese	Personalised lower limb models generated using an automatic workflow: comparison with manually created models
15:15-15:30 Afternoon break & poster viewing			
15:30-16:30	First name	Surname	Abstract title
Podium 4 Session chair: A/Prof Tania Crotti	Mitchell	Almond	Double intramedullary and single extramedullary cortical button constructs for distal biceps tendon surgical repair
	Harshi	Rupasinghe	Tension band wiring versus a novel tension band suture fixation for the treatment of olecranon fractures: a comparative biomechanics study
	Dale	Robinson	The influence of graft positioning on glenohumeral joint contact in the Latarjet procedure for recurrent shoulder instability
	Adam	Kositsky	Knee flexor weakness after anterior cruciate ligament reconstruction with a semitendinosus tendon graft: is it just due to muscle size?
	Darcy	Thompson-Bagshaw	Characterising the response of human heads during a simulated head-first impact
16:30-17:00 Session chair: A/Prof Tania Crotti	Keynote: A/Prof Claire Clarkin, University of Southampton, Southampton, UK "Resolving Sexual Dimorphism of the Bone Vasculature"		
17:00-17:05 Close & thank you			

Day 2 (Thursday October 07)

10:00-10:05	Day 2 Welcome: A/Prof Nathan Pavlos		
10:05-11:05	First name	Surname	Abstract title
David Findlay ECR Award Final, Session chairs: A/Prof Nathan Pavlos	Kai	Chen	Osteoblast-derived EGFL6 couples angiogenesis to osteogenesis during bone repair
	Damith	Senanayake	Wearable sensors for tele-medicine in orthopaedics: overcoming the challenge of converting raw IMU data into high accuracy joint angles
	Dzenita	Muratovic	Elevated levels of active transforming growth factor B1 in the subchondral bone relate spatially to cartilage loss and impaired bone quality in human knee osteoarthritis
	Carina	Blaker	Repeated mild knee injury events are associated with early osteoarthritic change
	Martina	Barzan	Accuracy and functional outcomes of juvenile proximal femoral osteotomies using virtual surgical planning and patient-matched surgical guides
11:05-11:45	<p>Session chair: A/Prof Nathan Pavlos</p> <p style="text-align: center;">Keynote: Prof Farshid Guilak, Washington University, St. Louis, USA</p> <p style="text-align: center;">“Gene Therapy for Obesity and Aging in Osteoarthritis”</p>		
11:45-12:05 Morning tea and poster viewing			
12:05-13:05	First name	Surname	Abstract title
PhD Award Final, Session chair: Sophie Rapagna	Jacob	Trend	Examining a role for VEGF in the regulation of osteocyte lacunae orientation
	Lauren	Wearne	Micro-CT imaging a press-fit tray implanted in human tibia: a zero-strain digital volume correlation analysis at organ level
	Amy	Ribet	Proteomics of the osteoclast secretory lysosome unmasks new regulators of bone resorption and skeletal bone mass
	Alexis	Brierty	The variability of foot motion in children with congenital talipes equinovarus (CTEV) being considered for tendon transfer surgery
	Kieran	Bennett	The mechanical response of trabecular bone within the tibial plateau due to external joint loading
13:05-13:45 Lunch break and poster viewing			
13:45-14:35	First name	Surname	Abstract title
Minhao Zheng Orthopaedic Innovation Award Final, Session chair: Dr Martina Barzan	Ben	Ferguson	CT-based FEA and multiobjective optimisation methods for determining optimal placement of fixation plate for scaffold-based mandibular reconstruction
	Faseeh	Zaidi	Remote patient monitoring with wearable sensors following knee arthroplasty
	Scott	Bolam	Enhancement of tendon-bone healing with a combined growth factor hydrogel in a rat chronic rotator cuff injury model
14:35-14:50	First name	Surname	Abstract title
Posters – Set 1, Session Chair: Dr Joe Lynch	Bailey	Deverell	Irinotecan's effect on trabecular long bone in a rat model of breast cancer
	Jonghoo	Sung	Delayed fracture healing in Zucker diabetic fatty (ZDF) rats is associated with persistent up-regulated pro-inflammatory marker expression
	James	Crowley	Lateral fenestration of lumbar intervertebral discs in rabbits: development and characterisation of a preclinical model
	Melanie	Amarasooriya	In vivo kinematics of the scaphoid in scapholunate instability using 4D CT-preliminary results
	Buddhi	Herath	Design workflow for 3D printable patient-specific Voronoi bone scaffolds
14:50-15:20 Break and poster viewing			
15:20-15:35	First name	Surname	Abstract title
Posters – Set 2, Session Chair: Dr Joe Lynch	Lachlan	Huntington	Double screw fixation in an unstable scaphoid fracture model: a biomechanical comparison of two screw configurations
	Hugo	Wiggins	High tibial osteotomy and distal femoral osteotomy using patient -specific instruments: pilot data from a biomechanical study of the lower limbs, pelvis and lumbar spine
	Sara Sadat	Farshidfar	Biomechanical improvements in gait following medial pivot knee implant surgery
	Yihang	Yu	The effect of spine cage position on the mechanical response of the superior lumbar endplate after lumbar interbody fusion
	Joseph	Cadman	Failure of tendon grafts fixed with 3mm tenodesis screws: does screw placement make a difference?
	Sara Sadat	Farshidfar	The effect of modelling parameters in the development and validation of knee joint models on ligament mechanics: a systematic review
15:35-15:45 Afternoon break & poster viewing			
15:55-16:55	<p>ANZORS AGM</p> <p>All delegates welcome (and encouraged) to attend</p>		
16:55-17:55	<p>New Investigator Breakout New Investigator Breakout: register if you haven't vet (free)!</p> <p>Dr Ju Zhang, founder of FormusLab: “Entrepreneurial post-PhD journey in the field of orthopaedic research”</p>		

Day 3 (Friday October 08)

10:25-10:30	Day 3 Welcome: A/Prof David Ackland		
10:30-11:00 Session chair: A/Prof David Ackland	Keynote: Prof Saman Halgamuge, The University of Melbourne, Victoria, Australia “21st Century Artificial Intelligence and its Potential in Biomedical Research”		
11:00-11:15 Morning tea and poster viewing			
11:15-12:15	First name	Surname	Abstract title
Podium 5 Session chair: Dr Dale Robinson	Azadeh	Kian	EMG-driven model predictions of glenohumeral joint force show high agreement with instrumented implant data after targeted model calibration
	Ian	Al'Khafaji	The role of the ligamentum teres in normal function of the hip joint
	Dominic	Thewlis	Patient-reported and functional outcomes in patients following primary and revision total hip arthroplasty
	Ryan	Quarrington	Estimating facet joint apposition with specimen-specific computer models of subaxial cervical spine kinematics: the effect of axial compression and distraction during shear and bending motions
	Marco	Branni	Quantifying orthotropic mechanical properties in entire human femurs
12:15-12:45 Lunch and poster viewing			
12:45-13:20	First name	Surname	Abstract title
Posters – Set 3 Session chair: Dr Dane Turner	Emma	Brown	Multi length scale structural investigation of articular cartilage: how structure influences the swelling response of mildly degenerate bovine articular cartilage
	Josh	Workman	Reference point indentation for the detection of early osteoarthritis
	Daniel	Wills	The thermal profile of self-tapping screws: the effect of insertion speed, power insertion, and screw geometry on heat production at the bone-screw interface
	Lianzhi	Chen	A population-based study on total knee replacement attributable to obesity in Australia
	Ross	Hamilton	Scoping review of imaging techniques to assess muscle damage post-total hip arthroplasty
	Joe	Lynch	In-vivo kinematics during step-up and down in three total knee replacement designs: a randomised clinical trial
Posters – Set 4 Session chair: Dr Dane Turner	Peggy	Miller	Dangers of being an outlier; mortality risk in hip fracture patients based off the orthopaedic ward. A cohort study
	Megan	Roser	Preliminary outcomes for patients undergoing vertebral body tethering for idiopathic scoliosis
	Reinier W.A.	Spek	3D printed handheld models do not improve recognition of specific characteristics and patterns of three-part and four-part proximal humerus fractures
	Thomas	Robertson	CT measured acetabular bone density following total hip arthroplasty: a scoping review and meta-analysis
	Yuan	Chai	Two novel designs of improving patella resection tools
	Stuart	Callary	Establishing an evidence-based approach to improve the stability of acetabular components used at revision surgery
13:20-13:30 Lunch and poster viewing			
13:30-14:30	First name	Surname	Abstract title
Podium 6 Session chair: Dr Stuart Callary	Francesca	Bucci	Does sex influence knee passive kinematics?
	Arjun	Sivakumar	Changes in post-operative lower limb biomechanics after femoral nailing of proximal femur fractures
	Azadeh	Nasseri	Effects of pubertal maturation on anterior cruciate ligament forces during a landing task in females
	David	Shen	Prosthetic impingement risk factors and impact on patient outcomes in hip resurfacing arthroplasty
	Kerry	Costi	Comparison of AOANJRR hip arthroplasty data with a hospital based registry
14:30-14:40 Afternoon break and poster viewing			
14:40-15:40	First name	Surname	Abstract title
Podium 7 Session chair: Dr Claire Jones	Stuart	Callary	Factors influencing femoral periprosthetic fracture around cemented stems
	Sam	Mischewski	Venous thromboembolism following surgical intervention for below knee fractures: a systematic review of the risk and benefits of preventative strategies
	Fraser	Francis-Pester	Patients with anterior shoulder instability adopt compensatory scapula motion during upper limb function
	Kiran	Rajesh	Hip fracture and dementia: prevalence, clinical profile, in-hospital outcomes and readmissions
	Pouya	Saeedian	Preoperative kinematics influences postoperative kinematics of the knee. A prospective randomised clinical trial of total knee arthroplasty
15:40-15:45	Announcement of Awards		
15:45-16:00	President's closing address Discussion of ANZORS 2022		

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