Congress Programme

8th World Congress of Biomechanics

8 - 12 July 2018
Dublin, Ireland

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In conjunction with

The World Council for Biomechanics
European Society of Biomechanics
ASME BIOENGINEERING DIVISION
SB³C

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AMBER

Program Code	Title	Presenting	Decision	Final session	Session Time	Room
O0214	Changes in the collagen fibre architecture within stented arterial tissue may play a critical role in directing	C. Lally	Oral Presentation	Multiscale mechanobiology of vascularisation and atherosclerosis	Monday 9th July, 09:55 - 11:25	Liffey B
O0215	The Distal-to-Proximal Shift of Muscle Function during Walking in Old Age is Absent for Negative Work	Jeroen Waanders	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0216	Older adults reverse their distal-to-proximal redistribution with ankle power biofeedback	Michael Browne	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0217	Older Adults' Propulsive Reserve Is Larger Than Their Deficit to Young Adults	Katie Conway	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0218	The metabolic cost of transport is not elevated in healthy and aerobically fit elderly compared to young ir	Sauvik Das Gupta	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0219	Effect of walking surface and late-cueing on turn strategy preferences in older adults.	Tina Smith, Matthew Taylor	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0220	Do older adults select appropriate motor strategies in a stepping down paradigm?	Nick Kluft	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0221	Differences in stair descent biomechanics between older fallers, older non-fallers and younger individual:	Thijs Ackermans	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0222	Ability to discriminate Fallers from Non-Fallers with the Clinical Test of Sensory Interaction and Balance ir	Jeremy Angus	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0223	Biomechanical Research on Dual-Task Walking to Evaluate Risk Factors of Falls in the Elderly.	Ki-Kwang Lee	Oral Presentation	Locomotion and falling in the elderly 2	Monday 9th July, 09:55 - 11:25	Auditorium
O0224	Multiscale Biomechanics and Plaque Rupture: what should we be looking out for?	Frank Gijsen	Invited Speaker	Multiscale mechanobiology of vascularisation and atherosclerosis	Monday 9th July, 09:55 - 11:25	Liffey B
O0225	Discovering the relationship between NF-κB and shear stress in cardiovascular disease	Y Ventikos	Invited Speaker	Multiscale mechanobiology of vascularisation and atherosclerosis	Monday 9th July, 09:55 - 11:25	Liffey B
O0226	Temporal and spatial changes in wall shear stress during atherosclerotic plaque progression in mice	Kim van der Heiden	Oral Presentation	Multiscale mechanobiology of vascularisation and atherosclerosis	Monday 9th July, 09:55 - 11:25	Liffey B
O0227	Cyclic Strain affects Macrophage Polarization and Cytokine Secretion in a 3D Scaffold Microenvironment -	Anthal Smits	Oral Presentation	Multiscale mechanobiology of vascularisation and atherosclerosis	Monday 9th July, 09:55 - 11:25	Liffey B
O0228	Low shear stress identifies a large interacting gene networks between mechanosensitive genes and miRN	Kok Yean Chooi	Oral Presentation	Multiscale mechanobiology of vascularisation and atherosclerosis	Monday 9th July, 09:55 - 11:25	Liffey B
O0229	A role for cadherin-11 in macrophage-driven vascular inflammation	Camryn Johnson	Oral Presentation	Multiscale mechanobiology of vascularisation and atherosclerosis	Monday 9th July, 09:55 - 11:25	Liffey B
O0230	Rate- and gender-based properties of the human tissues with a focus on the spine	Narayan Yoganandan	Invited Speaker	High rate injury biomechanics 1	Monday 9th July, 09:55 - 11:25	Liffey Hall 1
O0231	Neurotrauma at the Crossroads	Cameron Bass	Invited Speaker	High rate injury biomechanics 1	Monday 9th July, 09:55 - 11:25	Liffey Hall 1
O0232	Posture determines the mechanism of injury in under-vehicle explosions	Grigorios Grigoriadis	Oral Presentation	High rate injury biomechanics 1	Monday 9th July, 09:55 - 11:25	Liffey Hall 1
O0233	Pelvis injury and injury risk curves from simulated underbody blast loading	Jason Moore	Oral Presentation	High rate injury biomechanics 1	Monday 9th July, 09:55 - 11:25	Liffey Hall 1
O0234	Injury Tolerance for Blast Mediated Bending of the Human Femur	E. Meade Spratley	Oral Presentation	High rate injury biomechanics 1	Monday 9th July, 09:55 - 11:25	Liffey Hall 1
O0235	Rate and Posture Effects on the Cervical Spine Stiffness during High Rate Vertical Loading	Maria Ortiz-Paparoni	Oral Presentation	High rate injury biomechanics 1	Monday 9th July, 09:55 - 11:25	Liffey Hall 1
O0236	Injury Risk Assessment for Behind Armor Blunt Trauma Impact Conditions using Thorax Finite Element M	Duane Cronin	Oral Presentation	High rate injury biomechanics 1	Monday 9th July, 09:55 - 11:25	Liffey Hall 1
O0237	Numerical modeling of rupture in human arterial walls	Osman Gültekin	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0238	Characterisation of mode 1 fracture in porcine aortic tissue	Paul Tierney	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0239	A constituent specific study of damage accumulation in arterial tissue	Milad Ghasemi	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0240	Fracture behaviour and microstructure-mechanics relationship of human aortic aneurysms	Aziz Tokgoz	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0241	A One Fiber Family Constitutive Model of the Right Pulmonary Artery	Erica Pursell	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0242	Static and dynamic analysis of human thoracic aortic segments	Ivan Breslavsky	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0243	Postnatal melatonin treatment improves compliance of conductance arteries in chronic hypoxic lambs	Eugenio Rivera	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0244	Changes in the material properties of aorta due to trauma	Kurosh Darvish	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0245	Impact of assumption of affine deformation on constitutive models of arterial tissue	Jiri Bursa	Oral Presentation	Biomechanics of cardiovascular tissues 3	Monday 9th July, 09:55 - 11:25	Liffey Hall 2
O0246	Mechanoregulation of Intraocular Pressure by Nitric Oxide	Darryl Overby	Invited Speaker	Biomechanics of ocular pathologies 1	Monday 9th July, 09:55 - 11:25	Liffey MR1
O0247	In Vivo Extraction of the Biomechanical Properties of Human Optic Nerve Head Tissues in Healthy, Ocular	Michael Girard	Invited Speaker	Biomechanics of ocular pathologies 1	Monday 9th July, 09:55 - 11:25	Liffey MR1
O0248	In-situ measurement of intraocular pressure-induced deformation of the capillaries and collagenous bear	Ian A. Sigal	Oral Presentation	Biomechanics of ocular pathologies 1	Monday 9th July, 09:55 - 11:25	Liffey MR1
O0249	In-Situ Stiffness Characterization of the Inner Wall of Schlemm's Canal	Mark Johnson	Oral Presentation	Biomechanics of ocular pathologies 1	Monday 9th July, 09:55 - 11:25	Liffey MR1
O0250	Trabecular Meshwork Mechanical Stiffness is Strongly Linked to Aqueous Outflow Resistance	C. Ross Ethier	Oral Presentation	Biomechanics of ocular pathologies 1	Monday 9th July, 09:55 - 11:25	Liffey MR1
O0251	Does aqueous humour drainage from the eye depend on cellular metabolism?	Ester Reina-Torres	Oral Presentation	Biomechanics of ocular pathologies 1	Monday 9th July, 09:55 - 11:25	Liffey MR1
O0252	Iris Stromal Cell Nuclear Aspect Ratio Alters During Pupil Dilation	Neda Rashidi, Rouzbeh Amini	Oral Presentation	Biomechanics of ocular pathologies 1	Monday 9th July, 09:55 - 11:25	Liffey MR1

O0253	How sensitive are predicted knee contact forces to the muscle recruitment criterion formulation?	Michael Skipper Andersen	Invited Speaker	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2B
O0254	Loading on the anterior cruciate ligament during a side-cut	Trent Guess	Invited Speaker	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2B
O0255	Tibio-femoral contact force distribution only partially governs pivoting in TKA	Adam Trepczynski	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2B
O0256	Comparison of Computational Methods for the Calculation of Femoral Strain during Normal Activity	Hamed Ziaei Poor	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2B
O0257	Using an inverse bone remodelling approach to predict joint loads: Sensitive enough to detect different h	Alexander Synek	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2B
O0258	Biomechanical stimulation of the fetal skeleton linked to risk factors for developmental dysplasia of the h	Stefaan W. Verbruggen	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2B
O0259	Comparison of closed-loop and optimization solutions in multi-scale finite element musculoskeletal simu	Alessandro Navacchia	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2B
O0260	Targeted Drug Delivery under Physiological Flow in Real Sized Artery Stenosis Models	Netanel Korin	Invited Speaker	Nanotherapeutics and nanoparticle transport	Monday 9th July, 09:55 - 11:25	Liffey MR3
O0261	Combinatorial nanoconstructs for imaging and treating cancer and inflammatory diseases	Paolo Decuzzi	Invited Speaker	Nanotherapeutics and nanoparticle transport	Monday 9th July, 09:55 - 11:25	Liffey MR3
O0262	Augmented brain-penetrating nanoparticle dispersion and non-viral transfection via brain tissue pre-trea	Colleen T. Curley	Oral Presentation	Nanotherapeutics and nanoparticle transport	Monday 9th July, 09:55 - 11:25	Liffey MR3
O0263	Shear-responsive DNA-origami nano-carriers for targeted drug delivery applications	Oren M. Rotman	Oral Presentation	Nanotherapeutics and nanoparticle transport	Monday 9th July, 09:55 - 11:25	Liffey MR3
O0264	Ultrafast pulsed laser induced nanocrystal transformation in colloidal plasmonic vesicles	Zhenpeng Qin	Oral Presentation	Nanotherapeutics and nanoparticle transport	Monday 9th July, 09:55 - 11:25	Liffey MR3
O0265	Vascularized Liver and Tumor Microenvironments for Determination of Transport and Delivery of Drugs	Alican Ozkan	Oral Presentation	Nanotherapeutics and nanoparticle transport	Monday 9th July, 09:55 - 11:25	Liffey MR3
O0266	Development of a Gene-Activated Nerve Guidance Conduit for Peripheral Nerve Repair	Rosanne Raftery	Oral Presentation	Nanotherapeutics and nanoparticle transport	Monday 9th July, 09:55 - 11:25	Liffey MR3
O0267	Multiscale bone mechanobiology in aging	Ralph Müller	Invited Speaker	Multiscale biomechanics of age-related bone fractures	Monday 9th July, 09:55 - 11:25	Ecocem
O0268	A 3D Rigid-Registration Approach for the Quantification of Bone Periosteal and Endosteal Changes over T	Bert van Rietbergen	Invited Speaker	Multiscale biomechanics of age-related bone fractures	Monday 9th July, 09:55 - 11:25	Ecocem
O0269	Collagen Network Connectivity May Predict Fracture Toughness of Human Cortical Bone in Aging and Disc	Thomas Willett	Oral Presentation	Multiscale biomechanics of age-related bone fractures	Monday 9th July, 09:55 - 11:25	Ecocem
O0270	FE Prediction of Critical Falling Configurations in High Risk Fracture Patients	Mohamad I Z Ridzwan	Oral Presentation	Multiscale biomechanics of age-related bone fractures	Monday 9th July, 09:55 - 11:25	Ecocem
O0271	Thermal Evaluation During PMMA Bone Augmentation of the Proximal Femur	Amirhossein Farvardin	Oral Presentation	Multiscale biomechanics of age-related bone fractures	Monday 9th July, 09:55 - 11:25	Ecocem
O0272	The Relationship Between Stiffness and Strength in the Proximal Femur is Sex- and Age-Dependent	Daniella Patton	Oral Presentation	Multiscale biomechanics of age-related bone fractures	Monday 9th July, 09:55 - 11:25	Ecocem
O0273	Reducing osteoporotic hip fractures, predictively	Pinaki Bhattacharya	Oral Presentation	Multiscale biomechanics of age-related bone fractures	Monday 9th July, 09:55 - 11:25	Ecocem
O0274	Design Optimization of a Biconcave Mobile-bearing Total Disc Arthroplasty	Ryan Willing	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0275	Importance of bone condition and subject weight in choice of the acetabular shell design: A study of bion	Sabine Kobylinski	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0276	Subchondral bone cysts in the equine medial femoral condyle increase stress in the bone and meniscus	Lance Frazer	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0277	Towards in silico analysis of hip joint stability.	Karen Fitzgerald	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0278	Biomechanical evaluation of a novel elastomer cervical total disc replacement:A finite element study	A Kiapour	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0279	Biomechanical analysis of knee joint contact forces with gait evaluation before and after total knee arthrc	Kuan Zhang	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0280	Development of a novel Matlab-based framework for implementing mechanical joint stability constraints	Mohammadhossein Akhavanfar	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0281	A Combined Computational and Experimental Approach for Pre-clinical Simulation of Total Knee Replacer	Abdellatif Abdelgaied	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0282	Evaluation of Joint Contact Pressure in Four Subject Specific Discrete Element Based Models of the Ankle	Ivan Benemerito	Oral Presentation	Computational joint mechanics 3	Monday 9th July, 09:55 - 11:25	Wicklow Hall 2A
O0283	Novel approaches to the production of hard/soft tissue interfaces	Liam Grover	Invited Speaker	Musculoskeletal interfaces	Monday 9th July, 09:55 - 11:25	Liffey MR2
O0284	Precision engineering of biomimetic bone-cartilage interfaces via stereolithography-based 3D printing	Virginia Ferguson	Invited Speaker	Musculoskeletal interfaces	Monday 9th July, 09:55 - 11:25	Liffey MR2
O0285	Fibroblast growth factor signaling regulates eminence size, bone shape, and remodeling during postnatal	Megan Killian	Oral Presentation	Musculoskeletal interfaces	Monday 9th July, 09:55 - 11:25	Liffey MR2
O0286	Using 3D cell spheroids to investigate musculoskeletal interface formation	Jennifer Paxton	Oral Presentation	Musculoskeletal interfaces	Monday 9th July, 09:55 - 11:25	Liffey MR2
O0287	Creating Gradient Materials Using Magnetically-Assisted Electrospinning for Interfacial Tissue Engineering	Julianne Holloway	Oral Presentation	Musculoskeletal interfaces	Monday 9th July, 09:55 - 11:25	Liffey MR2
O0288	Spatially Organized 3D-Printed Scaffolds to Mimic the Osteochondral Interface	Lesley Chow	Oral Presentation	Musculoskeletal interfaces	Monday 9th July, 09:55 - 11:25	Liffey MR2
O0289	A triphasic collagen-PEG biomaterial with enhanced toughness for repair of the osteotendinous insertion	Brendan Harley	Oral Presentation	Musculoskeletal interfaces	Monday 9th July, 09:55 - 11:25	Liffey MR2
O0290	The role of mechanics in individual and collective cell migration: a computer-based study	José Manuel García-Aznar	Invited Speaker	Computational methods in cell mechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 1
O0291	Phase-field model of obstacle-mediated chemotaxis	Hector Gomez	Invited Speaker	Computational methods in cell mechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 1
O0292	The Mechanobiology of Adipocytes Revealed Through Multiscale Experimental-Computational Models of	Amit Gefen	Oral Presentation	Computational methods in cell mechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 1
O0293	The role of contractility in modulating apparent cell stiffness and adhesion: a computational study on s18	Bart Smeets	Oral Presentation	Computational methods in cell mechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 1
O0294	Computational modelling of cell and tissue mechanics based on cytoskeletal dynamics	Marino Arroyo	Oral Presentation	Computational methods in cell mechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 1
O0295	Mechanosensitivity of crawling cells	John Molina	Oral Presentation	Computational methods in cell mechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 1

O0296	Role of contact inhibition of locomotion and junctional mechanics in epithelial collective responses to inj	Vladimir Lobaskin	Oral Presentation	Computational methods in cell mechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow Hall 1
O0297	Cell adhesion during bullet and rolling motion in capillaries	Naoki Takeishi	Oral Presentation	Asian-Pacific Association for Biomechanics: The Yamaguchi Medal for Young Investigators	Monday 9th July, 09:55 - 11:25	Wicklow MR1
O0298	Biomechanical effects of ankle arthrodesis and total ankle arthroplasty surgeries on foot	Yan Wang	Oral Presentation	Asian-Pacific Association for Biomechanics: The Yamaguchi Medal for Young Investigators	Monday 9th July, 09:55 - 11:25	Wicklow MR1
O0299	Fascicle behavior of human medical gastrocnemius during isometric contraction after stroke	Jongsang Son	Oral Presentation	Asian-Pacific Association for Biomechanics: The Yamaguchi Medal for Young Investigators	Monday 9th July, 09:55 - 11:25	Wicklow MR1
O0300	Static optimization underestimates co-activation during gait in patients with and without neuromuscular	Elyse Passmore	Oral Presentation	Asian-Pacific Association for Biomechanics: The Yamaguchi Medal for Young Investigators	Monday 9th July, 09:55 - 11:25	Wicklow MR1
O0301	Topological Defects in epithelia govern cell death and extrusion	Thuan Beng Saw	Oral Presentation	Asian-Pacific Association for Biomechanics: The Yamaguchi Medal for Young Investigators	Monday 9th July, 09:55 - 11:25	Wicklow MR1
O0302	Measuring the full-field deformation response of the optic nerve head to controlled pressurization	Thao (Vicky) Nguyen	Invited Speaker	Digital volume correlation strain measurements in biological tissues and biomaterials	Monday 9th July, 09:55 - 11:25	Wicklow MR2
O0303	Geometry, Material, and Function Guided Digital Volume Correlation for Biomaterials Applications	Brian Bay	Invited Speaker	Digital volume correlation strain measurements in biological tissues and biomaterials	Monday 9th July, 09:55 - 11:25	Wicklow MR2
O0304	Internal Strain in The Proximal Human Femur: A Digital Volume Correlation Analysis of Time-Lapsed Syncl	Saulo Martelli	Oral Presentation	Digital volume correlation strain measurements in biological tissues and biomaterials	Monday 9th July, 09:55 - 11:25	Wicklow MR2
O0305	MicroCT and Digital Volume Correlation Measurement of Strain in the Intervertebral Disc	Catherine Disney	Oral Presentation	Digital volume correlation strain measurements in biological tissues and biomaterials	Monday 9th July, 09:55 - 11:25	Wicklow MR2
O0306	Full-field strain analysis of newly formed bone induced by BMP-2 loaded hydrogels	Marta Peña Fernández	Oral Presentation	Digital volume correlation strain measurements in biological tissues and biomaterials	Monday 9th July, 09:55 - 11:25	Wicklow MR2
O0307	OCT-DVC tridimensional measurements of layer-specific strain fields around an ostium in a porcine aorta	V.A. Acosta Santamaría	Oral Presentation	Digital volume correlation strain measurements in biological tissues and biomaterials	Monday 9th July, 09:55 - 11:25	Wicklow MR2
O0308	Accurate and noise insensitive strain mapping enables ultrasound analysis of cardiac function in three dir	John Boyle	Oral Presentation	Digital volume correlation strain measurements in biological tissues and biomaterials	Monday 9th July, 09:55 - 11:25	Wicklow MR2
O0309	Engineering a highly elastic and adhesive surgical sealant	Nasim Annabi	Invited Speaker	TERMIS session: Biomaterials and biomechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow MR3
O0310	New approaches including high-throughput for the engineering of musculoskeletal tissues	Rui L. Reis	Invited Speaker	TERMIS session: Biomaterials and biomechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow MR3
O0311	The Activity for establishment of the national registry for biomechanical products and National Regenera	Kiyoshi Okada	Oral Presentation	TERMIS session: Biomaterials and biomechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow MR3
O0312	A quantitative study on magnesium alloy biodegradation process	Lizhen Wang	Oral Presentation	TERMIS session: Biomaterials and biomechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow MR3
O0313	Fibrous protein scaffolds as synthetic extracellular matrices	Dorothea Brüggemann	Oral Presentation	TERMIS session: Biomaterials and biomechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow MR3
O0314	Superhemophobic Titania Nanotube Array Surfaces for Blood Contacting Medical Devices	Ketul Popat	Oral Presentation	TERMIS session: Biomaterials and biomechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow MR3
O0315	Micropore-generated capillary forces to aid in bone regeneration	Amy Wagoner Johnson	Oral Presentation	TERMIS session: Biomaterials and biomechanics 1	Monday 9th July, 09:55 - 11:25	Wicklow MR3
O0316	Simulating cell migration mechanics	David Odde	Invited Speaker	Connecting molecular interactions and mechanosensing to cell behaviours	Monday 9th July, 09:55 - 11:25	Wicklow MR4
O0317	Mechanosensitive Behaviors of the Actin Cytoskeleton	Taeyoon Kim	Invited Speaker	Connecting molecular interactions and mechanosensing to cell behaviours	Monday 9th July, 09:55 - 11:25	Wicklow MR4
O0318	Morphologies of cross-linked actin filament networks in confinement	Dimitrios Vavylonis	Invited Speaker	Connecting molecular interactions and mechanosensing to cell behaviours	Monday 9th July, 09:55 - 11:25	Wicklow MR4
O0319	Structural-elastic determination of the lifetime of biomolecules under force	Jie Yan	Invited Speaker	Connecting molecular interactions and mechanosensing to cell behaviours	Monday 9th July, 09:55 - 11:25	Wicklow MR4
O0320	Computational Modeling of Dynamic, Mechanically Compliant DNA Hinges	Gaurav Arya	Oral Presentation	Connecting molecular interactions and mechanosensing to cell behaviours	Monday 9th July, 09:55 - 11:25	Wicklow MR4
O0321	Boundary integral simulations of a red blood cell squeezing through a submicron slit under prescribed inl	Zhangli Peng	Oral Presentation	Connecting molecular interactions and mechanosensing to cell behaviours	Monday 9th July, 09:55 - 11:25	Wicklow MR4
O0322	Modeling the Two-way Feedback Between Contractility and Matrix Realignment Reveals a Non-linear Mo	Vivek Shenoy	Oral Presentation	Connecting molecular interactions and mechanosensing to cell behaviours	Monday 9th July, 09:55 - 11:25	Wicklow MR4
O0325	The interplay between gait variability, falls and cognitive function: evidence from dual-tasking, imaging, a	Jeffrey M. Hausdorff	Invited Speaker	Falls – prediction and prevention 1	Monday 9th July, 12:00 - 13:30	Auditorium
O0326	Performance-based biomarkers for prediction and prevention of falls	Mark D Grabiner	Invited Speaker	Falls – prediction and prevention 1	Monday 9th July, 12:00 - 13:30	Auditorium
O0327	Posterior single-stepping thresholds are predictive of falls in older, ambulatory women	Jeremy Crenshaw	Oral Presentation	Falls – prediction and prevention 1	Monday 9th July, 12:00 - 13:30	Auditorium
O0328	Fall risk in Virtual Reality systems: Visual field dependence predicts prospective falls among older adults	Erika Pliner	Oral Presentation	Falls – prediction and prevention 1	Monday 9th July, 12:00 - 13:30	Auditorium
O0329	Frontal plane center of mass motion during Timed Up and Go Test predicts prospective falls in elderly adı	Tzurei Chen	Oral Presentation	Falls – prediction and prevention 1	Monday 9th July, 12:00 - 13:30	Auditorium

O0330	Difference scores between single- and dual-tasks for temporal and spatial gait measures outperform clini	Drew Commandeur	Oral Presentation	Falls – prediction and prevention 1	Monday 9th July, 12:00 - 13:30	Auditorium
O0331	Perturbative experiment validates quantitative method of stability estimation for Sit-To-Stand	Shannon Danforth	Oral Presentation	Falls – prediction and prevention 1	Monday 9th July, 12:00 - 13:30	Auditorium
O0332	Effect of Materials on Stent Deployment	Georgia Karanasiou	Invited Speaker	Multiscale modeling of vascular and neurovascular diseases	Monday 9th July, 12:00 - 13:30	Liffey B
O0333	Big whorls have little whorls: Implications of multiscale flow in monoscale vessels	David Steinman	Invited Speaker	Multiscale modeling of vascular and neurovascular diseases	Monday 9th July, 12:00 - 13:30	Liffey B
O0334	Real-time simulation of stent deployment and blood flow through a blood vessel with stent	Tijana Djukic	Oral Presentation	Multiscale modeling of vascular and neurovascular diseases	Monday 9th July, 12:00 - 13:30	Liffey B
O0335	A novel poroelastic model of the neuro-glio-vascular unit	Dean Chou	Oral Presentation	Multiscale modeling of vascular and neurovascular diseases	Monday 9th July, 12:00 - 13:30	Liffey B
O0336	Geometry Optimization of Nitinol Stent Design: Comparing Old vs. New Design - Finite Element Analysis	Dalibor Nikolic	Oral Presentation	Multiscale modeling of vascular and neurovascular diseases	Monday 9th July, 12:00 - 13:30	Liffey B
O0337	Experimental classification of Intracranial Aneurysm tissue: from strain/stress relationships to fluorescen	Alexander Chupakhin	Oral Presentation	Multiscale modeling of vascular and neurovascular diseases	Monday 9th July, 12:00 - 13:30	Liffey B
O0338	A computational multi-level patient-specific model for the simulation of the mechanisms of atherosclerot	Antonis Sakellarios	Oral Presentation	Multiscale modeling of vascular and neurovascular diseases	Monday 9th July, 12:00 - 13:30	Liffey B
O0339	A biofidelity evaluation of the WIAMan Gen1 prototype	Hollie Pietsch	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0340	An investigation of the human pelvic response to underbody blast scenarios	Robert Salzar	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0341	Scaling effects on injury risk curves for femoral mid-shaft bending fracture	Alexander Baker	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0342	Generating Human Injury Probability Curves for the Upper Cervical Spine under UBB Loading	Liming Voo	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0343	Developing Injury Assessment Reference Curve for WIAMan Foot Injury Prediction Capability	Liming Voo	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0344	Evaluating Thoracolumbar Spine Response during Simulated Underbody Blast Loading Using a Total Hum	Karthik Somasundaram	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0345	Evaluation of four strategies to decrease Normalized Confidence Interval Size of injury risk curves	Alexander Baker	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0346	Kinematic and biomechanical response of post-mortem human subjects in various pre-impact postures t	Lauren Wood Zaseck	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0347	Response of female and male PMHS lower extremity to blast-induced vertical accelerative loading	Danielle Cristino	Oral Presentation	High rate injury biomechanics 2	Monday 9th July, 12:00 - 13:30	Liffey Hall 1
O0348	Elasticity models for dispersion in fibrous soft biological tissues	Ray Ogden	Invited Speaker	Micromechanics of cardiovascular tissues	Monday 9th July, 12:00 - 13:30	Liffey Hall 2
O0349	A validated computational model for vascular growth and remodeling with maturation, low oscillatory sh	Rudolph Gleason	Invited Speaker	Micromechanics of cardiovascular tissues	Monday 9th July, 12:00 - 13:30	Liffey Hall 2
O0350	Microstructure-scale finite element model of the tunica adventitia under tensile loading	Venkat Siva Radha Krishna Ayyalasomayajula	Oral Presentation	Micromechanics of cardiovascular tissues	Monday 9th July, 12:00 - 13:30	Liffey Hall 2
O0351	A structural finite element model of the ascending thoracic aorta	James Thunes	Oral Presentation	Micromechanics of cardiovascular tissues	Monday 9th July, 12:00 - 13:30	Liffey Hall 2
O0352	Modeling Fiber Recruitment and Damage with a Discrete Fiber Dispersion Method	Kewei Li	Oral Presentation	Micromechanics of cardiovascular tissues	Monday 9th July, 12:00 - 13:30	Liffey Hall 2
O0353	Layer-specific mechanical responses and morphological structure of atrioventricular valve leaflets	Chung-Hao Lee	Oral Presentation	Micromechanics of cardiovascular tissues	Monday 9th July, 12:00 - 13:30	Liffey Hall 2
O0354	Effects of intermittent hypoxia and ageing on the passive stiffness of ventricular myocardium in a mouse	Jorge Otero	Oral Presentation	Micromechanics of cardiovascular tissues	Monday 9th July, 12:00 - 13:30	Liffey Hall 2
O0355	Characterising the oscillatory mechanical forces in the aqueous humour outflow pathway	Joseph Sherwood	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0356	Investigating the sensitivity of intraocular pressure-induced optic nerve head strains to variations in optic	Stephen Schwaner	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0357	Biomimetic modelling of the glaucomatous lamina cribrosa region of the optic nerve head using tissue en	Deirdre Clissmann, Deirdre Brennan	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0358	Lamina cribrosa deformations due to increased IOP are different, usually larger, when alive than after dea	Ian A. Sigal	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0359	Early Ovariectomy Affects Ocular Compliance and Aqueous Outflow Facility	Andrew Feola	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0360	Measurement of the elastic modulus of rat optic nerve with chronic high intraocular pressure using atom	Xiuqing Qian	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0361	Biomechanical characterization and interrupted mechanical testing of the porcine optic nerve	Katherine M. Copeland	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0362	Novel Intraocular Pressure Measurement Algorithm for Patients with Keratoconus	Ashkan Eliasy	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0363	Investigation of the effect of fibrous structure of the human lens on accommodation using finite element	Reza Kakavand	Oral Presentation	Biomechanics of ocular pathologies 2	Monday 9th July, 12:00 - 13:30	Liffey MR1
O0364	Potential effects of thorax and rib cage joint rigidity on thoracolumbar spinal loading	Hossein Mokhtarzadeh	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B
O0365	Hip articular contact forces in femoroacetabular impingement syndrome using EMG-informed neuromus	Trevor N. Savage	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B
O0366	Correlation between inter-limb differences (ILDs) in knee biomechanical and biochemical variables 3 and	Ashutosh Khandha	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B
O0367	Integrating subject-specific tibio-femoral contact point trajectories from 3D/2D registration techniques in	Raphael Dumas	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B

O0368	Dynamic, in-vitro analysis of tibial bone strains in a fixed versus mobile bearing design for unicompartme	Orcun Taylan	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B
O0369	Evaluation of dynamic knee adduction angle during medial-foot-landing gait strategy	Seobin Choi	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B
O0370	Tibial bony morphology and tibiofemoral laxity predict knee mechanics during compression	Robert Kent	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B
O0371	The effect of grade on lower extremity joint contact forces during running	Michael Baggaley	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B
O0372	Biomechanics During Quadriceps Resistance Exercise – Effects of the Direction of the Gravity Vector	Maria Jönsson	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2B
O0373	Cell-cell junction dynamics and their role in tumor cell transendothelial migration	Roger D. Kamm	Invited Speaker	Cancer microenvironments and tumour transport	Monday 9th July, 12:00 - 13:30	Liffey MR3
O0374	Bone mineral matrix: a potential regulator of breast cancer skeletal metastasis	Claudia Fischbach	Invited Speaker	Cancer microenvironments and tumour transport	Monday 9th July, 12:00 - 13:30	Liffey MR3
O0375	Disrupting Physical Interactions Between Multiple Myeloma and the Bone Marrow Niche In Vivo via Nanc	Michael Mitchell	Oral Presentation	Cancer microenvironments and tumour transport	Monday 9th July, 12:00 - 13:30	Liffey MR3
O0376	Overcoming cancer drug resistance by pyruvate-mediated targeted production of reactive oxygen species	Xiaoming "Shawn" He	Oral Presentation	Cancer microenvironments and tumour transport	Monday 9th July, 12:00 - 13:30	Liffey MR3
O0377	Tumor Microenvironment of Pontine Glioma Using DCE-MRI and DTI	Kulam Magdoom, Malisa Sarntinoranont	Oral Presentation	Cancer microenvironments and tumour transport	Monday 9th July, 12:00 - 13:30	Liffey MR3
O0378	Role of vascular decompression and functional normalization in benefit from metronomic chemotherapy	Fotios Mpekris	Oral Presentation	Cancer microenvironments and tumour transport	Monday 9th July, 12:00 - 13:30	Liffey MR3
O0379	Cytoskeletal and nuclear dynamics during sustained biaxial confined migration	Andrew Holle	Oral Presentation	Cancer microenvironments and tumour transport	Monday 9th July, 12:00 - 13:30	Liffey MR3
O0380	Are changes in Joint Contact Mechanics related to the Progression of Joint Degeneration?	Suzanne Maher	Invited Speaker	Orthopaedic Research Society: Injury and joint degeneration: Initiation, progression and intervention	Monday 9th July, 12:00 - 13:30	Ecocem
O0381	Bone microdamage and repair, old and new links with joint injury and disease	Mitchell Schaffler	Invited Speaker	Orthopaedic Research Society: Injury and joint degeneration: Initiation, progression and intervention	Monday 9th July, 12:00 - 13:30	Ecocem
O0382	SS-31 peptide protects mitochondria structure and reduces impact-induced chondrocyte dysfunction in a	Lawrence J. Bonassar	Oral Presentation	Orthopaedic Research Society: Injury and joint degeneration: Initiation, progression and intervention	Monday 9th July, 12:00 - 13:30	Ecocem
O0383	The effect of estrogen withdrawal on osteocyte calcium signaling in vivo	Karl J. Lewis	Oral Presentation	Orthopaedic Research Society: Injury and joint degeneration: Initiation, progression and intervention	Monday 9th July, 12:00 - 13:30	Ecocem
O0384	Preclinical models of post-traumatic osteoarthritis: biomechanical and pathological comparisons of two A	Carina Blaker	Oral Presentation	Orthopaedic Research Society: Injury and joint degeneration: Initiation, progression and intervention	Monday 9th July, 12:00 - 13:30	Ecocem
O0385	Chondrocyte Deformations for Dynamic Loading Conditions	Amin Komeili	Oral Presentation	Orthopaedic Research Society: Injury and joint degeneration: Initiation, progression and intervention	Monday 9th July, 12:00 - 13:30	Ecocem
O0386	Pre-strain Induced Reduction of Apparent Cell Surface Area Protects Articular Chondrocytes from Impact	Alexander Kotelsky	Oral Presentation	Orthopaedic Research Society: Injury and joint degeneration: Initiation, progression and intervention	Monday 9th July, 12:00 - 13:30	Ecocem
O0387	Non-linear dynamics of the intervertebral disc	Stephen Ferguson	Invited Speaker	Human spine, characterization and modelling 1	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2A
O0388	Barycentremetry and subject specific spine modeling from biplanar X-Rays	Wafa Skalli	Invited Speaker	Human spine, characterization and modelling 1	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2A
O0389	Modelling the Fatigue Properties of Fractured Bovine Vertebrae Treated with Vertebroplasty using Experi	Ruth Coe	Oral Presentation	Human spine, characterization and modelling 1	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2A
O0390	Functional determination of a cervical spine joint coordinate system via an optimization approach	Matthew Moran	Oral Presentation	Human spine, characterization and modelling 1	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2A
O0392	The Subject-Specific FE Modeling of the Inferior Cervical Spine	Maxim Van den Abbeele	Oral Presentation	Human spine, characterization and modelling 1	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2A
O0393	Combined musculoskeletal and structural finite element modelling of the lumbar spine	Clément Favier	Oral Presentation	Human spine, characterization and modelling 1	Monday 9th July, 12:00 - 13:30	Wicklow Hall 2A
O0394	Modelling articular cartilage as a dynamic tissue	Bruce Gardiner	Invited Speaker	Multiscale biomechanics of articular degenerative diseases	Monday 9th July, 12:00 - 13:30	Liffey MR2
O0395	Theoretical and Experimental Foundations for Investigating Damage Mechanics in Articular Cartilage	Brandon Zimmerman	Invited Speaker	Multiscale biomechanics of articular degenerative diseases	Monday 9th July, 12:00 - 13:30	Liffey MR2
O0396	The aggregate mechanics of cartilage due to nanoscale degradation	Yasin Dhaher	Oral Presentation	Multiscale biomechanics of articular degenerative diseases	Monday 9th July, 12:00 - 13:30	Liffey MR2
O0397	Subchondral bone mass negatively correlates to load-induced cartilage damage in mice	Sophia Ziemian	Oral Presentation	Multiscale biomechanics of articular degenerative diseases	Monday 9th July, 12:00 - 13:30	Liffey MR2
O0398	Experimental investigation of human cartilage multiscale mechanics.	Ashvin Thambyah	Oral Presentation	Multiscale biomechanics of articular degenerative diseases	Monday 9th July, 12:00 - 13:30	Liffey MR2
O0399	A mechanobiological model to predict proteoglycan loss in injured cartilage: numerical analysis integrate	Gustavo Orozco	Oral Presentation	Multiscale biomechanics of articular degenerative diseases	Monday 9th July, 12:00 - 13:30	Liffey MR2
O0400	Novel Laser Treatment Modality for Crosslinking and Strengthening Early-Stage Osteoarthritic Cartilage	Krista Durney-Antonelli	Oral Presentation	Multiscale biomechanics of articular degenerative diseases	Monday 9th July, 12:00 - 13:30	Liffey MR2

O0401	Synergistic force-application mechanisms of invasive cancer cells revealed by combined experiments and	Daphne Weihs	Oral Presentation	Computational methods in cell mechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 1
O0402	Quantitative hybrid modeling reveals predictable mechanical stress response of growing tumor spheroids	Paul Van Liedekerke	Oral Presentation	Computational methods in cell mechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 1
O0403	Hybrid cell-centred/vertex model for multicellular systems	Payman Mosaffa	Oral Presentation	Computational methods in cell mechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 1
O0404	Discrete element method models of deformable cells in 2D and 3D environments to explore traction gen	Diego A Vargas	Oral Presentation	Computational methods in cell mechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 1
O0405	Pulsatile signaling in active cytoskeletal networks for embryonic tissue folding	Michael Mak	Oral Presentation	Computational methods in cell mechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 1
O0406	Mathematical modeling of nonmuscle myosin dependent cortical stability during cytokinesis	Matthew R. Bersi	Oral Presentation	Computational methods in cell mechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 1
O0407	Why membrane oligomers reach a finite size? reticulons and dynamin as case studies	Tom Shemesh	Oral Presentation	Computational methods in cell mechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 1
O0408	A Virtual-Single Cell and Virtual-Multiple Cell Approach to Quantifying Force Transmission and Morpholo	David Long	Oral Presentation	Computational methods in cell mechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow Hall 1
O0410	From fluid and structure dynamical behaviors to vascular pathologies	Valérie DEPLANO	Invited Speaker	Société de Biomécanique session: Christian Oddou Award lecture and Young Investigator Awards	Monday 9th July, 12:00 - 13:30	Wicklow MR1
O0411	Enhancing fatigue resistance in team sports: From the understanding of repeated-sprinting neuromechan	Franck Brocherie	Oral Presentation	Société de Biomécanique session: Christian Oddou Award lecture and Young Investigator Awards	Monday 9th July, 12:00 - 13:30	Wicklow MR1
O0412	A continuum relaxed growth model for controlling growth-induced residual stresses in living tissues	Martin Genet	Oral Presentation	Société de Biomécanique session: Christian Oddou Award lecture and Young Investigator Awards	Monday 9th July, 12:00 - 13:30	Wicklow MR1
O0413	Three-dimensional kinematics of temporo-mandibular joints with moderate dysfunctions compared with	Emilie Sapin - de Brosses	Oral Presentation	Société de Biomécanique session: Christian Oddou Award lecture and Young Investigator Awards	Monday 9th July, 12:00 - 13:30	Wicklow MR1
O0414	Assessing and improving human movements using sensitivity analysis and digital human simulation	Pauline Maurice	Oral Presentation	Société de Biomécanique session: Christian Oddou Award lecture and Young Investigator Awards	Monday 9th July, 12:00 - 13:30	Wicklow MR1
O0415	Biomechanical study of the action of compression bandages on the lower leg	Fanette Chassagne	Oral Presentation	Société de Biomécanique session: Christian Oddou Award lecture and Young Investigator Awards	Monday 9th July, 12:00 - 13:30	Wicklow MR1
O0416	Advanced in vivo bio-imaging of hard tissue.	Steven Boyd	Invited Speaker	Advanced bioimaging 1	Monday 9th July, 12:00 - 13:30	Wicklow MR2
O0417	Multi-scale and multi-modal cardiac imaging to study the mechanics of heart failure	Martyn P. Nash	Invited Speaker	Advanced bioimaging 1	Monday 9th July, 12:00 - 13:30	Wicklow MR2
O0418	A novel histogram-based thresholding approach for accurate segmentation of osteocyte lacunae in micro	Elliott Goff	Oral Presentation	Advanced bioimaging 1	Monday 9th July, 12:00 - 13:30	Wicklow MR2
O0419	Cellular hallmarks of bone diseases in 3D: A correlative workflow for micro-computed tomography and se	Patricia Goggin	Oral Presentation	Advanced bioimaging 1	Monday 9th July, 12:00 - 13:30	Wicklow MR2
O0420	High resolution SPECT-CT statistical analysis platform enabling group comparisons: cemented vs uncemer	Félix Dandois	Oral Presentation	Advanced bioimaging 1	Monday 9th July, 12:00 - 13:30	Wicklow MR2
O0421	Contrast Enhanced Computed tomography (CECT): a potent tool for measuring GAG content in tissue eng	Behdad Pouran	Oral Presentation	Advanced bioimaging 1	Monday 9th July, 12:00 - 13:30	Wicklow MR2
O0422	Real-time 3D photoacoustic imaging for blood flow visualization in skin micro vessels	Yoshifumi Saijo	Oral Presentation	Advanced bioimaging 1	Monday 9th July, 12:00 - 13:30	Wicklow MR2
O0423	Leveraging elasticity to accelerate wound repair	Anthony Weiss	Invited Speaker	TERMIS session: Biomaterials and biomechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow MR3
O0424	Does measuring in the frequency or strain-rate domain affect mechanical results?	Giorgio Mattei	Oral Presentation	TERMIS session: Biomaterials and biomechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow MR3
O0425	Engineering viscoelasticity in biomaterials	Arti Ahluwalia	Oral Presentation	TERMIS session: Biomaterials and biomechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow MR3
O0426	New force-controlled testing method for real-time viscoelastic measurements in bioreactors	Ludovica Cacopardo	Oral Presentation	TERMIS session: Biomaterials and biomechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow MR3
O0427	Tissue-level control of cell orientation by geometry sensing on a micromesh	Kennedy Omondi Okeyo	Oral Presentation	TERMIS session: Biomaterials and biomechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow MR3
O0428	Wear in ceramic-on-ceramic hip replacement: ex-vivo and in-vitro expertise	Marwa Ben Braham	Oral Presentation	TERMIS session: Biomaterials and biomechanics 2	Monday 9th July, 12:00 - 13:30	Wicklow MR3
O0429	Coiled coils as molecular force sensors for the extracellular matrix	Kerstin G. Blank	Invited Speaker	Analytical tools for nanoscale force transduction	Monday 9th July, 12:00 - 13:30	Wicklow MR4
O0430	Piconewton-sensitive biosensors to investigate molecular forces in cells	Carsten Grashoff	Invited Speaker	Analytical tools for nanoscale force transduction	Monday 9th July, 12:00 - 13:30	Wicklow MR4
O0431	Munc18-1 and Vps33 catalyze directional SNARE assemblyby templating SNARE associationMunc18-1 an	Yongli Zhang	Invited Speaker	Analytical tools for nanoscale force transduction	Monday 9th July, 12:00 - 13:30	Wicklow MR4
O0432	Rationally designed synthetic protein hydrogels with predictable mechanical properties based on single n	Yi Cao	Invited Speaker	Analytical tools for nanoscale force transduction	Monday 9th July, 12:00 - 13:30	Wicklow MR4
O0433	Tunable Molecular Tension Sensors Reveal Extension-Based Control of Vinculin Loading	Brenton Hoffman	Oral Presentation	Analytical tools for nanoscale force transduction	Monday 9th July, 12:00 - 13:30	Wicklow MR4
O0434	Structural determinants of alpha catenin force transduction at intercellular adhesions	Deborah Leckband	Oral Presentation	Analytical tools for nanoscale force transduction	Monday 9th July, 12:00 - 13:30	Wicklow MR4
O0435	Single-molecule mechanical (un)folding of RNA: Unravelling mRNA structure's role in translational regula	Gang Chen	Oral Presentation	Analytical tools for nanoscale force transduction	Monday 9th July, 12:00 - 13:30	Wicklow MR4
O0440	Biomechanical Testing of Hip Protectors Following the Canadian Standards Association Express Documen	Bethany Keenan	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium
O0441	Temporal differences in hand placement response after a ladder climbing perturbation	Erika Pliner	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium
O0442	Fall risk assessment with gyro and accelerometer sensors: minimum foot clearance and its variability.	Zhe Sun	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium
O0443	Increasing walking speed decreases the lower-limb endpoint wrench space: implications for fall preventic	Aravind Sundararajan	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium
O0444	Analysing the synchronisation of COM motion with music in human standing	Victor Gonzalez	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium
O0445	The relationship between trunk and foot movement variability during walking is sensitive to separate fall	Jordan Craig	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium
O0446	A comparison of the Rosenstein and Wolf algorithms for the nonlinear analysis of normal and perturbed g	Tim Foran	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium
O0447	Evaluation of a more sensitive measure for prediction of changes in dynamic postural stability and fall risl	Rita Patterson	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium
O0448	Age effects on body's center of mass motion in relation to center of pressure during downhill walking	Shih-Wun Hong	Oral Presentation	Falls – prediction and prevention 2	Monday 9th July, 15:00 - 16:30	Auditorium

O0449	Multi-scale Mechanics of Extracellular Matrix in the Arterial Wall	Katherine Yanhang Zhang	Invited Speaker	Multiscale mechanics of cardiovascular materials and structures	Monday 9th July, 15:00 - 16:30	Liffey B
O0450	Multiscale mechanics of cardiovascular tissues: from artery tissues to myocardium to filament networks	Gerhard Holzapfel	Invited Speaker	Multiscale mechanics of cardiovascular materials and structures	Monday 9th July, 15:00 - 16:30	Liffey B
O0451	Subject-specific multiscale modeling of aortic valve biomechanics	Giovanni Rossini	Oral Presentation	Multiscale mechanics of cardiovascular materials and structures	Monday 9th July, 15:00 - 16:30	Liffey B
O0452	Multi-modality and multi-scale experimental characterization of aneurysmal aortic tissue under bulge infl	Cristina Cavinato	Oral Presentation	Multiscale mechanics of cardiovascular materials and structures	Monday 9th July, 15:00 - 16:30	Liffey B
O0453	State of the Art Simulation of Bioprosthetic Heart Valve Durability	Will Zhang	Oral Presentation	Multiscale mechanics of cardiovascular materials and structures	Monday 9th July, 15:00 - 16:30	Liffey B
O0454	Fibrous Architecture of the Aortic Valve Aids in Leaflet Mechanics and Hemodynamics	Dorma Carl Flemister	Oral Presentation	Multiscale mechanics of cardiovascular materials and structures	Monday 9th July, 15:00 - 16:30	Liffey B
O0455	Discrete-to-continuum modelling of myocardium	Roxanna Barry	Oral Presentation	Multiscale mechanics of cardiovascular materials and structures	Monday 9th July, 15:00 - 16:30	Liffey B
O0456	Evaluation of WIAMan biofidelity during explosive-driven vertical acceleration	David Barnes	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0457	The biomechanics of blast related torso injury: Development of a small animal model of under body blast	Phill Pearce	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0458	Influence of helmet pads in a ballistically-driven blunt impact	Karin Rafaels	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0459	Mechanical Properties of Human Skin under Dynamic Indentation Test	Kevin Kong	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0460	Occupant Response to Underbody Blast	Kyvory Henderson	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0461	Influence of Seating Environment on PMHS Response in Physically Simulated Underbody Blast Exposure	Constantine Demetropoulos	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0462	Male and Female Lumbar Spinal Column Human Injury Probability Curves under vertical Impact	Jason Moore	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0463	Do blast-induced skull flexures result in axonal deformation?	Reuben Kraft	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0464	Novel severity measures link fractures from cadaveric experiments to those in battlefield blast cases	Donald D. Anderson	Oral Presentation	High rate injury biomechanics 3	Monday 9th July, 15:00 - 16:30	Liffey Hall 1
O0465	Medical Device Development for Acute Ischemic Stroke: An Industry Perspective	John Daniel	Invited Speaker	Mechanical thrombectomy for emergent large vessel occlusion in acute ischemic stroke	Monday 9th July, 15:00 - 16:30	Liffey Hall 2
O0466	Evolution of Mechanical Thrombectomy in Stroke and Current Clinical Challenges	Ian Rennie	Invited Speaker	Mechanical thrombectomy for emergent large vessel occlusion in acute ischemic stroke	Monday 9th July, 15:00 - 16:30	Liffey Hall 2
O0467	Results of neurointerventional treatment in anterior Willis circle stroke cases with tandem occlusion	Zsolt Berentei	Oral Presentation	Mechanical thrombectomy for emergent large vessel occlusion in acute ischemic stroke	Monday 9th July, 15:00 - 16:30	Liffey Hall 2
O0468	IN Silico trials for treatment of acute Ischemic Stroke (INSIST)	Praneeta Konduri	Oral Presentation	Mechanical thrombectomy for emergent large vessel occlusion in acute ischemic stroke	Monday 9th July, 15:00 - 16:30	Liffey Hall 2
O0469	Experimental and computational analysis of the mechanical behaviour of thrombus material	Sarah Johnson	Oral Presentation	Mechanical thrombectomy for emergent large vessel occlusion in acute ischemic stroke	Monday 9th July, 15:00 - 16:30	Liffey Hall 2
O0470	Characterisation of Strut Indentation during Mechanical Thrombectomy in Acute Ischemic Stroke Clot An	Fiona Weafer	Oral Presentation	Mechanical thrombectomy for emergent large vessel occlusion in acute ischemic stroke	Monday 9th July, 15:00 - 16:30	Liffey Hall 2
O0471	Pump or Syringe? Evaluation of Aspiration Efficacy with Neurovascular Catheters	Rose Arslanian	Oral Presentation	Mechanical thrombectomy for emergent large vessel occlusion in acute ischemic stroke	Monday 9th July, 15:00 - 16:30	Liffey Hall 2
O0472	Biomechanical Simulations of Progressing Osteoarthritis: Experiments, Theory, Finite Elements, and Preli	David M. Pierce	Invited Speaker	Computer models of growth and remodelling 1	Monday 9th July, 15:00 - 16:30	Liffey MR1
O0473	Growth and remodeling of human aortic and pulmonary heart valves	Sandra Loerakker	Invited Speaker	Computer models of growth and remodelling 1	Monday 9th July, 15:00 - 16:30	Liffey MR1
O0474	A micromechanical model for growth and remodeling of collagen tissues based on fibril-level mechanism	Thao Nguyen	Oral Presentation	Computer models of growth and remodelling 1	Monday 9th July, 15:00 - 16:30	Liffey MR1
O0475	Predicting angiogenesis using bone fracture healing outcomes in an in vivo mouse femur defect model.	Angad Malhotra	Oral Presentation	Computer models of growth and remodelling 1	Monday 9th July, 15:00 - 16:30	Liffey MR1
O0476	How does a transcondylar screw enhance healing of subchondral bone cysts?	Lance Frazer	Oral Presentation	Computer models of growth and remodelling 1	Monday 9th July, 15:00 - 16:30	Liffey MR1
O0477	Quantitative computational model of sex hormone effects on tissue remodeling agents after knee injury	Bethany Powell	Oral Presentation	Computer models of growth and remodelling 1	Monday 9th July, 15:00 - 16:30	Liffey MR1
O0478	Improving bone ingrowth in additive manufactured porous implants using novel adaptive algorithms inco	Vee San Cheong, Gordon Blunn	Oral Presentation	Computer models of growth and remodelling 1	Monday 9th July, 15:00 - 16:30	Liffey MR1
O0479	Load carriage mass and walking speed alter medial compartment knee joint contact forces in soldiers	Gavin K Lenton	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B
O0480	Quantitative analysis of the stand to sit pelvis kinematics using 3D reconstructions from bi-planar x-rays	François Girinon	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B
O0481	Walking in shallow water can selectively load lower extremity muscles, but may not reduce hip contact fo	Maria Isabel Orselli	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B

O0482	Calibration of neuromuscular parameters affects estimation of hip joint contact forces in healthy adults	Hoang Hoa	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B
O0483	Validation of a multi-objective optimisation for the estimation of the musculo-tendon, ligament, and join	Laurence Cheze	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B
O0484	Preliminary comparison of EOS-derived and geometrically calibrated segment lengths: inter-hip and femu	Pierre Puchaud	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B
O0485	Knee contact loading differences during over ground and treadmill gait	Kate Jones	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B
O0486	Resultant peak tibial acceleration is a measure of impact loading in overground rearfoot running: a valida	Pieter Van den Berghe	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B
O0487	Plantarflexor strength deficits at 12 weeks post-surgery do not influence plantarflexor moments during g	Alison Agres	Oral Presentation	Joint loading during locomotion and human movement (effects on joint and tissue adaptation) 3	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2B
O0488	A microfluidic model of endothelial metabolism in flow	Alisa Clyne	Invited Speaker	Microfluidics	Monday 9th July, 15:00 - 16:30	Liffey MR3
O0489	Microfluidic technologies for modelling and monitoring biomechanical tissue and organ systems	Craig Simmons	Invited Speaker	Microfluidics	Monday 9th July, 15:00 - 16:30	Liffey MR3
O0490	3D model of Human Blood-Brain Barrier Microvascular Network including iPS-derived Endothelial Cells, b	Valeria Chiono	Oral Presentation	Microfluidics	Monday 9th July, 15:00 - 16:30	Liffey MR3
O0491	A loss of vascular endothelial barrier function by hypoxic exposure	Kenichi Funamoto	Oral Presentation	Microfluidics	Monday 9th July, 15:00 - 16:30	Liffey MR3
O0492	Quantitative dynamics of red blood cells passing through biomimetic submicron splenic slits	Anne Charrier	Oral Presentation	Microfluidics	Monday 9th July, 15:00 - 16:30	Liffey MR3
O0493	Development of 3D Lymphatic and Vascular Microfluidic Tumor Platform for Understanding Tumor Migra	Manasa Gadde	Oral Presentation	Microfluidics	Monday 9th July, 15:00 - 16:30	Liffey MR3
O0494	A microfluidic platform for high-throughput drug screening on 3D functional microtissues	Roberta Visone	Oral Presentation	Microfluidics	Monday 9th July, 15:00 - 16:30	Liffey MR3
O0495	Laboratory based quantitative outcome assessment in orthopaedic trials	Peter Augat	Invited Speaker	Quantitative outcome assessment in orthopaedic trials	Monday 9th July, 15:00 - 16:30	Ecocem
O0496	Free field based quantitative outcome assessment in orthopaedic trials.	Bernd Grimm	Invited Speaker	Quantitative outcome assessment in orthopaedic trials	Monday 9th July, 15:00 - 16:30	Ecocem
O0497	Early weight bearing capacity predicts healing outcome after tibia fracture	Inga Kröger	Oral Presentation	Quantitative outcome assessment in orthopaedic trials	Monday 9th July, 15:00 - 16:30	Ecocem
O0498	The AO Fracture monitor	Markus Windolf	Oral Presentation	Quantitative outcome assessment in orthopaedic trials	Monday 9th July, 15:00 - 16:30	Ecocem
O0499	Dynamic pedobarographic outcome assessment after geriatric, intertrochanteric femur fractures – Result	David Osche	Oral Presentation	Quantitative outcome assessment in orthopaedic trials	Monday 9th July, 15:00 - 16:30	Ecocem
O0500	The use of a wrist-worn accelerometer to objectively measure activity and sleep parameters in patients fc	Jasvir Bahl	Oral Presentation	Quantitative outcome assessment in orthopaedic trials	Monday 9th July, 15:00 - 16:30	Ecocem
O0501	Elongation of the Collateral Ligaments after Posterior Stabilized vs. Cruciate Retaining Total Knee Arthrop	Seyyed Hamed Hosseini Nasab	Oral Presentation	Quantitative outcome assessment in orthopaedic trials	Monday 9th July, 15:00 - 16:30	Ecocem
O0502	The effect of cement augmentation on pedicle screw fixation under various load cases: results from a con	Yan Chevalier	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0503	Experimental analysis of the lower cervical spine in hyperflexion	Christophe Muth-seng	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0504	Taguchi analysis of factors affecting finite element modelling of vertebral bodies.	Bruno Agostinho Hernandez	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0505	Estimation of compressive force acting on human sacrum during dynamic condition	Xiaohan Xiang	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0506	WHICH MATERIAL PROPERTIES AND WHICH MORPHOLOGY PARAMETERS ARE MOST IMPORTANT FOR NU	Benedikt Schlager	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0507	Biomechanical testing of a PCU-based dynamic instrumentation device under physiological conditions.	Agnes Beckmann	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0508	Postural modifications with lung volume variations	Louis Clavel	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0509	Influence of osteophytes and regional microstructural heterogeneity on BMD and TBS in human thoracic	Annika vom Scheidt	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0510	Vertebral fractures in the neoplastic spine: a finite element investigation	Fabio Galbusera	Oral Presentation	Human spine, characterization and modelling 2	Monday 9th July, 15:00 - 16:30	Wicklow Hall 2A
O0511	What Have In Vivo Knee Contact Force Measurements Taught Us about Neuromusculoskeletal Modeling?	B.J. Fregly	Invited Speaker	Incorporating in vivo load variability in modelling	Monday 9th July, 15:00 - 16:30	Liffey MR2
O0512	From human motion to bone strains: the effect of intra- and inter-subject load variability and how to take	Fulvia Taddei	Invited Speaker	Incorporating in vivo load variability in modelling	Monday 9th July, 15:00 - 16:30	Liffey MR2
O0513	Effect of physiological loading conditions on the primary stability provided by two different humeral stem	Philippe Favre	Oral Presentation	Incorporating in vivo load variability in modelling	Monday 9th July, 15:00 - 16:30	Liffey MR2
O0514	A population-based principal component analysis of patellofemoral morphology and quadriceps forces or	Justin Fernandez	Oral Presentation	Incorporating in vivo load variability in modelling	Monday 9th July, 15:00 - 16:30	Liffey MR2
O0515	In vivo tibia deformation regimes and strain distribution in humans during different locomotive activities	Peng-Fei Yang	Oral Presentation	Incorporating in vivo load variability in modelling	Monday 9th July, 15:00 - 16:30	Liffey MR2
O0516	Statistical parametric mapping of hip contact forces in total hip replacement patients stratified by BMI	Enrico De Pieri	Oral Presentation	Incorporating in vivo load variability in modelling	Monday 9th July, 15:00 - 16:30	Liffey MR2
O0517	An update on the CAMS-Knee Dataset: A Key Dataset for the Comprehensive Assessment of the Musculo	William R. Taylor	Oral Presentation	Incorporating in vivo load variability in modelling	Monday 9th July, 15:00 - 16:30	Liffey MR2
O0518	Differential roles of Nck1 and Nck2 in shear stress-induced proinflammatory signaling	Wayne Orr	Invited Speaker	Flow-mediated cellular biomechanics 1	Monday 9th July, 15:00 - 16:30	Wicklow Hall 1
O0519	Fluid shear flow with spatial gradient regulates vascular endothelial mechanoresponses	Daisuke Yoshino	Invited Speaker	Flow-mediated cellular biomechanics 1	Monday 9th July, 15:00 - 16:30	Wicklow Hall 1
O0520	Spatio-temporal analysis of megakaryocyte elongation during platelet production	Ilyesse Bihi	Oral Presentation	Flow-mediated cellular biomechanics 1	Monday 9th July, 15:00 - 16:30	Wicklow Hall 1
O0521	Shear stress mechanotransduction is regulated by Filamin A and FilGAP	Rosa Kaviani	Oral Presentation	Flow-mediated cellular biomechanics 1	Monday 9th July, 15:00 - 16:30	Wicklow Hall 1
O0522	The role of actomyosin contractility on giant vacuole biomechanics in cultured Schlemm's canal endothel	Alice Spenlehauer	Oral Presentation	Flow-mediated cellular biomechanics 1	Monday 9th July, 15:00 - 16:30	Wicklow Hall 1
O0523	Manipulation of primary cilia mechanotransduction	Liam Boyle	Oral Presentation	Flow-mediated cellular biomechanics 1	Monday 9th July, 15:00 - 16:30	Wicklow Hall 1
O0524	Microfluidic-integrated microclot array elastometry (clotMAT) to study blood clot micromechanics	Ruogang Zhao	Oral Presentation	Flow-mediated cellular biomechanics 1	Monday 9th July, 15:00 - 16:30	Wicklow Hall 1

O0525	25 years of physiome: the clinical translation and the Virtual Physiological Human	Marco Viceconti	Invited Speaker	VPH Institute session: 25 years of Physiome	Monday 9th July, 15:00 - 16:30	Wicklow MR1
O0526	Reflecting on 25 years of the Physiome Project	Peter Hunter	Invited Speaker	VPH Institute session: 25 years of Physiome	Monday 9th July, 15:00 - 16:30	Wicklow MR1
O0527	Using bond graphs to provide a framework for coupling cardiovascular system and tissue exchange mech	Soroush Safaei	Oral Presentation	VPH Institute session: 25 years of Physiome	Monday 9th July, 15:00 - 16:30	Wicklow MR1
O0528	Cloaking Virtual Physiological Human with the Human microbiome- summary of current progress and a fu	Jagir Hussan	Oral Presentation	VPH Institute session: 25 years of Physiome	Monday 9th July, 15:00 - 16:30	Wicklow MR1
O0529	Model semantics for discovery, composition, and personalisation	David Nickerson	Oral Presentation	VPH Institute session: 25 years of Physiome	Monday 9th July, 15:00 - 16:30	Wicklow MR1
O0530	In silico regenerative medicine: from living implants to virtual patients	Liesbet Geris	Oral Presentation	VPH Institute session: 25 years of Physiome	Monday 9th July, 15:00 - 16:30	Wicklow MR1
O0531	Quantitative T1rho measurement of gliomas	Toshiaki Akashi	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0532	Comparison of skin thickness measurement by magnetic resonance, histologic procedure and biopsy free	Melisa Cardona	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0533	T1ρ Relaxation Modeling via the Stretched Exponential in the Intervertebral Disc	Robert Wilson	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0534	Minimum inter-limb difference of tri-compartment knee cartilage T2 values in healthy subjects	Jack R. Williams	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0535	In vivo micro computed tomography (microCT) segmentation for biomechanics studies of mouse tibiofen	Kathryn Stok	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0536	Evaluation of bone collagen fibril three-dimensional orientation in nano-CT images using a refined autocc	Françoise Peyrin	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0537	Activity Microscopy: Extracting network mechanics from thermal noise	Ernst-Ludwig Florin	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0538	Application of co-occurrence texture statistics analysis of thermogram as a model of the muscle activity	Lukasz Zdrojkowski	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0539	A novel automated method for a real-time behavioral pattern analysis of primate using a depth image ser	Sang Kuy Han	Oral Presentation	Advanced bioimaging 2	Monday 9th July, 15:00 - 16:30	Wicklow MR2
O0540	Designing mechanically heterogeneous scaffolds for cardiovascular tissue engineering	Jane Grande-Allen	Invited Speaker	Biomechanics of vascular tissue engineering	Monday 9th July, 15:00 - 16:30	Wicklow MR3
O0541	Retention of seeded mesenchymal stem cells within an implanted elastomeric vascular scaffold	David Vorp	Invited Speaker	Biomechanics of vascular tissue engineering	Monday 9th July, 15:00 - 16:30	Wicklow MR3
O0542	Physiologic flow reduces pathologic indications of microvessels cultured in vitro	Kristina Haase	Oral Presentation	Biomechanics of vascular tissue engineering	Monday 9th July, 15:00 - 16:30	Wicklow MR3
O0543	Vascular Redundancy and Damage Tolerance in Microvascular Networks	Gabriel Gruionu	Oral Presentation	Biomechanics of vascular tissue engineering	Monday 9th July, 15:00 - 16:30	Wicklow MR3
O0544	Effect of age on biomechanics of in situ engineered small diameter vascular grafts	Piyusha Gade	Oral Presentation	Biomechanics of vascular tissue engineering	Monday 9th July, 15:00 - 16:30	Wicklow MR3
O0545	Computational modeling of the inflammatory response to implanted polymeric scaffolds to improve tissu	Jason Szafron	Oral Presentation	Biomechanics of vascular tissue engineering	Monday 9th July, 15:00 - 16:30	Wicklow MR3
O0546	Arteriole-Scale Human Tissue-Engineered Blood Vessel Models of Healthy and Disease States	George Truskey	Oral Presentation	Biomechanics of vascular tissue engineering	Monday 9th July, 15:00 - 16:30	Wicklow MR3
O0547	Nanoscale architecture of cadherin-based cell adhesions	Pakorn Kanchanawong	Invited Speaker	Intercellular and subcellular force transmission	Monday 9th July, 15:00 - 16:30	Wicklow MR4
O0548	Mechanics of cell contacts during tissue morphogenesis	Pierre-François Lenne	Invited Speaker	Intercellular and subcellular force transmission	Monday 9th July, 15:00 - 16:30	Wicklow MR4
O0549	Isometric contractile properties of individual stress fibers	Shinji Deguchi	Invited Speaker	Intercellular and subcellular force transmission	Monday 9th July, 15:00 - 16:30	Wicklow MR4
O0550	Mechanics of chromatin in situ	Kris Dahl	Invited Speaker	Intercellular and subcellular force transmission	Monday 9th July, 15:00 - 16:30	Wicklow MR4
O0551	Optimal number of SNARE proteins for fast neurotransmetter release	Matthieu Caruel	Oral Presentation	Intercellular and subcellular force transmission	Monday 9th July, 15:00 - 16:30	Wicklow MR4
O0552	Measuring mechanical forces across cell-cell junctions and the nuclear LINC complex in 3D acini: implicati	Daniel Conway	Oral Presentation	Intercellular and subcellular force transmission	Monday 9th July, 15:00 - 16:30	Wicklow MR4
O0553	In situ measurement of membrane mechanical moduli using fluorescence lifetime distribution of DiI	Peter Butler	Oral Presentation	Intercellular and subcellular force transmission	Monday 9th July, 15:00 - 16:30	Wicklow MR4
O0555	Evaluating and interpreting patient-specific neuromuscular control in cerebral palsy	Michael Schwartz	Invited Speaker	Gait in cerebral palsy: Neuromuscular control versus muscle mechanics 1	Monday 9th July, 17:00 - 18:30	Auditorium
O0556	Evaluating and interpreting patient specific mechanical muscle properties in cerebral palsy	Glen Lichtwark	Invited Speaker	Gait in cerebral palsy: Neuromuscular control versus muscle mechanics 1	Monday 9th July, 17:00 - 18:30	Auditorium
O0557	Changes in muscle synergy weights and activations after Botulinum toxin injections are not related to tar	Benjmain Shuman	Oral Presentation	Gait in cerebral palsy: Neuromuscular control versus muscle mechanics 1	Monday 9th July, 17:00 - 18:30	Auditorium
O0558	Neuromuscular Control Changes in Response to Biofeedback on Gait in Children with Cerebral Palsy	Adam Booth	Oral Presentation	Gait in cerebral palsy: Neuromuscular control versus muscle mechanics 1	Monday 9th July, 17:00 - 18:30	Auditorium
O0559	Quantifying the separate effects of Botulinum Toxin-A and lower leg casting on ankle joint hyper-resistan	Lynn Bar-On	Oral Presentation	Gait in cerebral palsy: Neuromuscular control versus muscle mechanics 1	Monday 9th July, 17:00 - 18:30	Auditorium
O0560	Investigating cerebral palsy using EMG-informed approaches: a twin case study	Giorgio Davico	Oral Presentation	Gait in cerebral palsy: Neuromuscular control versus muscle mechanics 1	Monday 9th July, 17:00 - 18:30	Auditorium
O0561	Computation of postural parameters during gait in children with cerebral palsy and typically developing c	Ayman Assi	Oral Presentation	Gait in cerebral palsy: Neuromuscular control versus muscle mechanics 1	Monday 9th July, 17:00 - 18:30	Auditorium
O0562	Cellular response to changes in interfacial energy at the alveolar level	Daniel ISABEY	Invited Speaker	Multiscale models of the cardiopulmonary system	Monday 9th July, 17:00 - 18:30	Liffey B
O0563	Mechanisms of damage and prevention of pulmonary atelectrauma at the cellular level.	Donald Gaver	Invited Speaker	Multiscale models of the cardiopulmonary system	Monday 9th July, 17:00 - 18:30	Liffey B
O0564	Interactions between organs via the autonomic nervous system	Peter Hunter	Invited Speaker	Multiscale models of the cardiopulmonary system	Monday 9th July, 17:00 - 18:30	Liffey B
O0565	Hierarchical modeling of the heart within the circulation and cardiopulmonary systems	Dominique Chapelle	Invited Speaker	Multiscale models of the cardiopulmonary system	Monday 9th July, 17:00 - 18:30	Liffey B
O0566	Finite element model of work of breathing in six year old children	David Wootton	Oral Presentation	Multiscale models of the cardiopulmonary system	Monday 9th July, 17:00 - 18:30	Liffey B
O0567	Examination of left ventricular inter-constituent mechanical interaction and its effect on residual stress	Marissa Grobbel	Oral Presentation	Multiscale models of the cardiopulmonary system	Monday 9th July, 17:00 - 18:30	Liffey B
O0568	Effect of loading history and deep inspirations on airway smooth muscle cell–matrix adhesions	Linda Irons	Oral Presentation	Multiscale models of the cardiopulmonary system	Monday 9th July, 17:00 - 18:30	Liffey B

O0569	Inflammation and Structural Changes in the Initiation and Healing of Painful Intervertebral Disc Degenera	James Iatridis	Invited Speaker	Mechanosensing in injury and pain	Monday 9th July, 17:00 - 18:30	Liffey Hall 1
O0570	Regulating Redundant Mechanical and Thermal Sensitization Pathways in Discogenic Pain	Robby Bowles	Invited Speaker	Mechanosensing in injury and pain	Monday 9th July, 17:00 - 18:30	Liffey Hall 1
O0571	Multiscale Deformation Behavior of Nucleus Pulposus Cells in Pro-inflammatory Conditions	Quynhhoa Nguyen	Oral Presentation	Mechanosensing in injury and pain	Monday 9th July, 17:00 - 18:30	Liffey Hall 1
O0572	Actomyosin Contractility Mediates Response of the Nucleus Pulpous Cells to Inflammatory Stimulation at	Timothy Jacobsen	Oral Presentation	Mechanosensing in injury and pain	Monday 9th July, 17:00 - 18:30	Liffey Hall 1
O0573	Development and Validation of a High-throughput Bioreactor System for Studying Mechano-sensing with	Benjamin Walter	Oral Presentation	Mechanosensing in injury and pain	Monday 9th July, 17:00 - 18:30	Liffey Hall 1
O0574	Mechanosensing of Tendon Fatigue Damage: Role of Altered Collagen Organization versus Altered Tissue	Spencer Szczesny	Oral Presentation	Mechanosensing in injury and pain	Monday 9th July, 17:00 - 18:30	Liffey Hall 1
O0575	Biomechanics of the human ulnar nerve: a comparison between in situ and in vitro strains	Carla Barberio	Oral Presentation	Mechanosensing in injury and pain	Monday 9th July, 17:00 - 18:30	Liffey Hall 1
O0576	Role of microcalcifications in atherosclerotic plaque rupture: evolution of a longstanding paradigm	Luis Cardoso	Invited Speaker	Atherosclerotic plaque: Mechanism and modelling	Monday 9th July, 17:00 - 18:30	Liffey Hall 2
O0577	A novel apparatus for the multifaceted evaluation of human brachial artery functions through transmural	Takeo Matsumoto	Invited Speaker	Atherosclerotic plaque: Mechanism and modelling	Monday 9th July, 17:00 - 18:30	Liffey Hall 2
O0578	Multi-Risk-Factor Decision-Making Strategy May Lead to Improved Coronary Plaque Burden Increase Prec	Liang Wang	Oral Presentation	Atherosclerotic plaque: Mechanism and modelling	Monday 9th July, 17:00 - 18:30	Liffey Hall 2
O0579	A framework for investigating the relationship between patient-specific coronary artery haemodynamics	Lachlan Kelsey	Oral Presentation	Atherosclerotic plaque: Mechanism and modelling	Monday 9th July, 17:00 - 18:30	Liffey Hall 2
O0580	Biomechanical Identification of Atherosclerotic Plaque Rupture Initiation and Propagation	Ali Akyildiz	Oral Presentation	Atherosclerotic plaque: Mechanism and modelling	Monday 9th July, 17:00 - 18:30	Liffey Hall 2
O0581	On modelling patient-specific carotid atherosclerotic plaque formation and development	Estefania Peña	Oral Presentation	Atherosclerotic plaque: Mechanism and modelling	Monday 9th July, 17:00 - 18:30	Liffey Hall 2
O0582	Plaque structural stress in the coronary atherosclerosis: a potential biomarker in predicting myocardial in	Zhongzhao Teng	Oral Presentation	Atherosclerotic plaque: Mechanism and modelling	Monday 9th July, 17:00 - 18:30	Liffey Hall 2
O0583	Voxel size-dependency of a load-adaptive bone remodelling algorithm	Nicholas Ohs	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0584	A biphasic model of trabecular bone to predict the eletric field stimulation	António Ramos	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0585	Multiscale quantification of biomechanical roles of soft tissues for orthodontics	Qing Li	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0586	Including the Implant Degradation Process in a Fracture Healing Model	Ulrich Simon	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0587	Post-operative bone remodeling and plastic damage in tibial bone	Dennis Janssen	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0588	A multiscale mechanobiology based finite element study on combined bone ingrowth and remodelling ar	Sanjay Gupta	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0589	An agent-based computer modeling approach to investigate the role of VEGFR1 in sprouting angiogenesis	Clemens Kühn	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0590	Mechanical Homeostasis in a Morphoelastic Mechanobiological Model of Airway Remodelling	Michael Hill	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0591	Investigating the role of minor chain collagen IV and remodeling in kidney dysfunction: A multiscale finite	Lauren Bersie	Oral Presentation	Computer models of growth and remodelling 2	Monday 9th July, 17:00 - 18:30	Liffey MR1
O0592	Generating Subject-specific Predictions of Human Movement	B.J. Fregly	Invited Speaker	Predictive human movement simulation 1	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2B
O0593	Computationally efficient simulations of human movement to study the interaction between motor contr	Friedl De Groote	Invited Speaker	Predictive human movement simulation 1	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2B
O0594	Towards a model of spinal control learning in human locomotion	Hartmut Geyer	Oral Presentation	Predictive human movement simulation 1	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2B
O0595	A fast motor control framework for predictive simulation of musculoskeletal systems	Reza Sharif Razavian	Oral Presentation	Predictive human movement simulation 1	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2B
O0596	Estimation of human-exoskeleton collaborative movement	Gil Serrancolí	Oral Presentation	Predictive human movement simulation 1	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2B
O0597	Contributions of the ankle passive moment increase to the compensatory adaptations in diabetic gait: a p	Aline A. Gomes	Oral Presentation	Predictive human movement simulation 1	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2B
O0598	Optimal control-based prediction of the influence of hip and lumbar flexibility on lifting motions	Jaap H. van Dieen	Oral Presentation	Predictive human movement simulation 1	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2B
O0599	The Futile Pursuit of Truth in the Lymphatic System	James Moore	Invited Speaker	Vascular, lymphatic, and ocular transport	Monday 9th July, 17:00 - 18:30	Liffey MR3
O0600	A New Ex Vivo Glaucoma Model Showing Reduced Trabecular Meshwork Cellularity and Impaired Fluid D	C. Ross Ethier	Invited Speaker	Vascular, lymphatic, and ocular transport	Monday 9th July, 17:00 - 18:30	Liffey MR3
O0601	Spatiotemporally varying wall shear stress modulates lymphatic endothelial cell alignment and transcripti	Alexander Dunn	Oral Presentation	Vascular, lymphatic, and ocular transport	Monday 9th July, 17:00 - 18:30	Liffey MR3
O0602	Methicillin-resistant Staphylococcus aureus causes sustained collecting lymphatic vessel dysfunction	Timothy Padera	Oral Presentation	Vascular, lymphatic, and ocular transport	Monday 9th July, 17:00 - 18:30	Liffey MR3
O0603	The relationship between lymphatic pump function and tissue swelling in lymphedema	J. Brandon Dixon	Oral Presentation	Vascular, lymphatic, and ocular transport	Monday 9th July, 17:00 - 18:30	Liffey MR3
O0604	In vitro and Computational Modelling of the Eye for Evaluating the Delivery of Therapeutics in the Treatm	Alys Davies, Serban Pop	Oral Presentation	Vascular, lymphatic, and ocular transport	Monday 9th July, 17:00 - 18:30	Liffey MR3
O0605	Calcium Release-Activated Calcium (CRAC) Channels are Responsible for the Shear Stress-Induced Intrace	Hongjiang Si	Oral Presentation	Vascular, lymphatic, and ocular transport	Monday 9th July, 17:00 - 18:30	Liffey MR3
O0606	Improvement of screw anchorage by augmentation, from macroscopic to nanoscopic level	Werner Schmoelz	Invited Speaker	ESB-ANC multiscale biomechanics for orthopedics - from molecules to patients	Monday 9th July, 17:00 - 18:30	Ecocem
O0607	Current Achievements in Hierarchical Bone Biomechanics - the Engineering Mechanics Perspective	Christian Hellmich	Invited Speaker	ESB-ANC multiscale biomechanics for orthopedics - from molecules to patients	Monday 9th July, 17:00 - 18:30	Ecocem
O0608	Multiscale modeling provides differentiated insights to fluid flow-driven stimulation of bone cellular activ	Sarah-Jane Estermann, Stefan Scheiner	Oral Presentation	ESB-ANC multiscale biomechanics for orthopedics - from molecules to patients	Monday 9th July, 17:00 - 18:30	Ecocem
O0609	Finite element analysis on the effect of articular fracture lines for complex tibial plateau fractures	Shabnam Samsami	Oral Presentation	ESB-ANC multiscale biomechanics for orthopedics - from molecules to patients	Monday 9th July, 17:00 - 18:30	Ecocem
O0610	Hierarchical Elastoplasticity of Bone: Theory, Algorithm, and experimental Validation	Valentina Wittner	Oral Presentation	ESB-ANC multiscale biomechanics for orthopedics - from molecules to patients	Monday 9th July, 17:00 - 18:30	Ecocem
O0611	Biomechanical Evaluation of Pedicle Screw Pullout Strength and Stiffness using Custom Made Synthetic B	Marianne Hollensteiner	Oral Presentation	ESB-ANC multiscale biomechanics for orthopedics - from molecules to patients	Monday 9th July, 17:00 - 18:30	Ecocem
O0612	Antiangiogenic treatment improves tendon repair in a rat model	Herbert Tempfer	Oral Presentation	ESB-ANC multiscale biomechanics for orthopedics - from molecules to patients	Monday 9th July, 17:00 - 18:30	Ecocem

O0613	Investigation of cognitive stress induced changes in spinal disc forces due to altered kinematics and musc	Franz Suess	Oral Presentation	Human spine, characterization and modelling 3	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2A
O0614	The effects of vertebroplasty on regional load transfer to adjacent levels in cyclic loading	Ines Santos	Oral Presentation	Human spine, characterization and modelling 3	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2A
O0615	Optimising Computational Methods of Modelling Vertebroplasty in Experimentally Augmented Human Lu	Gavin Day	Oral Presentation	Human spine, characterization and modelling 3	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2A
O0616	How do morphological variations influence cervical spine range of motion in physiological loading?	Jobin John	Oral Presentation	Human spine, characterization and modelling 3	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2A
O0617	Fixation of the sacroiliac joint with posterior thoracolumbar instrumentation: an in silico investigation on	Gloria Casaroli	Oral Presentation	Human spine, characterization and modelling 3	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2A
O0618	Characterising human intervertebral discs at a range of strain rates using an inverse finite element appro	Nicolas Newell	Oral Presentation	Human spine, characterization and modelling 3	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2A
O0619	An energy approach to explore the spine balance in adolescent idiopathic scoliosis (AIS).	Baptiste Brun-Cottan	Oral Presentation	Human spine, characterization and modelling 3	Monday 9th July, 17:00 - 18:30	Wicklow Hall 2A
O0622	Time-lapsed in vivo imaging of bone adaptation and regeneration	Ralph Müller	Invited Speaker	In vivo bone remodelling mechanics	Monday 9th July, 17:00 - 18:30	Liffey MR2
O0623	Osteocytes, Microdamage and Bone Remodeling - Messages from Within	Mitchell Schaffler	Invited Speaker	In vivo bone remodelling mechanics	Monday 9th July, 17:00 - 18:30	Liffey MR2
O0624	Cyclic but not static loading increases bone mass in mouse caudal vertebrae	Ariane Scheuren	Oral Presentation	In vivo bone remodelling mechanics	Monday 9th July, 17:00 - 18:30	Liffey MR2
O0625	Deterioration of trabecular microarchitecture occurs prior to alterations in mineral distribution in the tibi	Laura M. O'Sullivan	Oral Presentation	In vivo bone remodelling mechanics	Monday 9th July, 17:00 - 18:30	Liffey MR2
O0626	Osteoprogenitor YAP and TAZ combinatorially promote endochondral fracture repair	Christopher Kegelman	Oral Presentation	In vivo bone remodelling mechanics	Monday 9th July, 17:00 - 18:30	Liffey MR2
O0627	Influence of strain magnitude on radius bone microstructure: a 12-month prospective HRpQCT study in h	Megan Mancuso	Oral Presentation	In vivo bone remodelling mechanics	Monday 9th July, 17:00 - 18:30	Liffey MR2
O0628	Mechanotransductive Promotion of Bone Tissue Regeneration in Critical Bone Defect byIn VivoFunctional	Yi-Xian Qin	Oral Presentation	In vivo bone remodelling mechanics	Monday 9th July, 17:00 - 18:30	Liffey MR2
O0629	Endothelial Glycocalyx Layer Properties and Its Ability to Prevent Neutrophil Adhesion	Luis Delgadillo	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0630	Towards elucidating the role of the temporal gradient of wall shear stress in venous intimal hyperplasia d	Marco Franzoni	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0631	The role of integrin αvβ3 in osteocyte mechanotransduction during estrogen deficiency	Ivor Geoghegan	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0632	Characterization of the responsiveness of endothelial colony forming cells to flow	Thévy Lok	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0633	Disruption of the Endothelial Cell Glycocalyx in Regions of Spatial Wall Shear Stress Gradients	Marc-Antoine Campeau	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0634	Binding kinetics and dynamic force spectrum for LFA-1 and Mac-1 to their ligands in neutrophil recruitme	Ning Li	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0635	Heparan Sulfate Proteoglycans Modulates Shear-induced Angiogenesis	Ping Zhao	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0636	Computational study of the nodal flow with a small number of cilia: comparison of mechanosensing and	Toshihiro Omori	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0637	Role of glycocalyx of endothelial cells in LDL concentration polarization and trans-intimaltransport	Xuejiao Ma, Hongyan Kang	Oral Presentation	Flow-mediated cellular biomechanics 2	Monday 9th July, 17:00 - 18:30	Wicklow Hall 1
O0638	In-silico observation of bone metabolism and remodeling based on mechano-biochemical coupling mode	Taiji Adachi	Invited Speaker	JSME session: Commemorative Lectures on Emerging Technologies for Biomechanics: Beyond the 120th anniversary of the JSME	Monday 9th July, 17:00 - 18:30	Wicklow MR1
O0639	Emerging Functions of Electrically-induced Bubbles	Yoko Yamanishi	Invited Speaker	JSME session: Commemorative Lectures on Emerging Technologies for Biomechanics: Beyond the 120th anniversary of the JSME	Monday 9th July, 17:00 - 18:30	Wicklow MR1
O0640	Direct insertion fibers responds to anterior drawer force prior to indirect insertion fibers in the ACL	Satoshi Yamakawa	Oral Presentation	JSME session: Commemorative Lectures on Emerging Technologies for Biomechanics: Beyond the 120th anniversary of the JSME	Monday 9th July, 17:00 - 18:30	Wicklow MR1
O0641	Novel application of three-dimensional tissue engineered constructs fabricated by human endometrial st	Jeonghyun Kim	Oral Presentation	JSME session: Commemorative Lectures on Emerging Technologies for Biomechanics: Beyond the 120th anniversary of the JSME	Monday 9th July, 17:00 - 18:30	Wicklow MR1
O0642	Investigation of microvessel morphological change and corresponding vascular wall shear stress distribut	Masafumi Watanabe	Oral Presentation	JSME session: Commemorative Lectures on Emerging Technologies for Biomechanics: Beyond the 120th anniversary of the JSME	Monday 9th July, 17:00 - 18:30	Wicklow MR1
O0643	Numerical simulation of cytoadhesion of red blood cells infected by Plasmodium falciparum	Shunichi Ishida	Oral Presentation	JSME session: Commemorative Lectures on Emerging Technologies for Biomechanics: Beyond the 120th anniversary of the JSME	Monday 9th July, 17:00 - 18:30	Wicklow MR1
O0644	Rho-signaling plays crucial roles for cellular mechanotransduction and regulates actin and intermediate fi	Sachiko Fujiwara	Oral Presentation	JSME session: Commemorative Lectures on Emerging Technologies for Biomechanics: Beyond the 120th anniversary of the JSME	Monday 9th July, 17:00 - 18:30	Wicklow MR1
O0645	DNA breaks in chondrocyte progenitor cells under cyclic hydrostatic pressure	Koichiro Maki, Katsuko Furukawa, Takashi Ushida	Oral Presentation	JSME session: Commemorative Lectures on Emerging Technologies for Biomechanics: Beyond the 120th anniversary of the JSME	Monday 9th July, 17:00 - 18:30	Wicklow MR1
O0646	Biomechanics of soft tissue by MR elastography	Armando Manduca	Invited Speaker	Biomechanics of soft tissue by Elastography (MRI, US)	Monday 9th July, 17:00 - 18:30	Wicklow MR2
O0647	The Impact of Active and Passive Forces on Cancer Cell Proliferation and Metastatic Processes: What can	Ralph Sinkus	Invited Speaker	Biomechanics of soft tissue by Elastography (MRI, US)	Monday 9th July, 17:00 - 18:30	Wicklow MR2
O0648	Optical coherence elastography for characterizing a 3D in vitro tumor model structural and mechanical pr	David Kingsley	Oral Presentation	Biomechanics of soft tissue by Elastography (MRI, US)	Monday 9th July, 17:00 - 18:30	Wicklow MR2
O0649	Elastic properties of the zygomatic muscle using ultrasound elastography technique	Sabine F. Bensamoun	Oral Presentation	Biomechanics of soft tissue by Elastography (MRI, US)	Monday 9th July, 17:00 - 18:30	Wicklow MR2

O0650	Mechanical characterization of meningioma with multi-frequency magnetic resonance elastography	Efe Ozkaya, Gloria Fabris	Oral Presentation	Biomechanics of soft tissue by Elastography (MRI, US)	Monday 9th July, 17:00 - 18:30	Wicklow MR2
O0651	Modelling Within-Tissue Wave Propagation Generated by The Pressure Pulse in the Carotid Artery	Daniela Tommasin	Oral Presentation	Biomechanics of soft tissue by Elastography (MRI, US)	Monday 9th July, 17:00 - 18:30	Wicklow MR2
O0652	Inversion Recovery Magnetic Resonance Poro-Elastography for Encoding Solid and Fluid Motion in Biphas	Ledia Lilaj	Oral Presentation	Biomechanics of soft tissue by Elastography (MRI, US)	Monday 9th July, 17:00 - 18:30	Wicklow MR2
O0653	Tissue engineering strategies inspired by evolution	Celeste Nelson	Invited Speaker	Mechanobiology and tissue engineering of the respiratory tract	Monday 9th July, 17:00 - 18:30	Wicklow MR3
O0654	Cell-Matrix mechanotransduction in lung remodeling and fibrosis	Thomas Barker	Invited Speaker	Mechanobiology and tissue engineering of the respiratory tract	Monday 9th July, 17:00 - 18:30	Wicklow MR3
O0655	Distal Lung Epithelial Regeneration is Driven by Notch Pathway Inhibition and Enhanced by Ex Vivo Native	Sarah E. Gilpin	Oral Presentation	Mechanobiology and tissue engineering of the respiratory tract	Monday 9th July, 17:00 - 18:30	Wicklow MR3
O0656	Development of a hybrid alginate-ECM hydrogel as a potential bioink for 3D bioprinting	Martina M. De Santis	Oral Presentation	Mechanobiology and tissue engineering of the respiratory tract	Monday 9th July, 17:00 - 18:30	Wicklow MR3
O0657	MicroRNA Expression in Alveolar Macrophages Regulates the Mechanobiology of Ventilation Induced Lur	Samir Ghadiali	Oral Presentation	Mechanobiology and tissue engineering of the respiratory tract	Monday 9th July, 17:00 - 18:30	Wicklow MR3
O0658	The Impact of Aging and Mechanical Stretch on Monocyte Recruitment and Macrophage Polarization in E	Michael Valentine	Oral Presentation	Mechanobiology and tissue engineering of the respiratory tract	Monday 9th July, 17:00 - 18:30	Wicklow MR3
O0659	Dynamic imaging of airways during bronchoconstriction in rats	Christopher Waters	Oral Presentation	Mechanobiology and tissue engineering of the respiratory tract	Monday 9th July, 17:00 - 18:30	Wicklow MR3
O0660	Mechanical phase transitions and anomalous stress in extracellular matrices	Fred MacKintosh	Invited Speaker	Non-equilibrium biomechanics - from molecules to cells	Monday 9th July, 17:00 - 18:30	Wicklow MR4
O0661	Role of bond reversibility in biopolymer network elasticity, fracture and plasticity	Gijsje Koenderink	Invited Speaker	Non-equilibrium biomechanics - from molecules to cells	Monday 9th July, 17:00 - 18:30	Wicklow MR4
O0662	Vimentin intermediate filaments dominate cytoplasmic mechanics at large deformations as a hyperelasti	Ming Guo	Oral Presentation	Non-equilibrium biomechanics - from molecules to cells	Monday 9th July, 17:00 - 18:30	Wicklow MR4
O0663	Mechanical activity induces fragile to strong transition of glassy cytoplasm in living cells	Kenji Nishizawa	Oral Presentation	Non-equilibrium biomechanics - from molecules to cells	Monday 9th July, 17:00 - 18:30	Wicklow MR4
O0664	Nonequilibrium dissipation in living oocytes	Wylie Ahmed	Oral Presentation	Non-equilibrium biomechanics - from molecules to cells	Monday 9th July, 17:00 - 18:30	Wicklow MR4
O0665	The emergence of contractility in biopolymer networks	Pierre Ronceray	Oral Presentation	Non-equilibrium biomechanics - from molecules to cells	Monday 9th July, 17:00 - 18:30	Wicklow MR4
O0666	Equilibrium physics breakdown reveals the active nature of red blood cell flickering	Hervé Turlier	Oral Presentation	Non-equilibrium biomechanics - from molecules to cells	Monday 9th July, 17:00 - 18:30	Wicklow MR4