BioMedEng18 Summary Schedule: Day 1

08:30	Conference Registration			
09:30	Welcome Ceremony - Professor Nick Jennings CB, FREng - (Great Hall)			
09:45	Plenary Session 1 (OATech+) - Professor Kyriacos Athanasiou - (Great Hall)			
10:35	Rapid Fire Presentations - (Great Hall)			
10:55	Poster Session + Tea & Coffee Break - (Queens Tower Rooms)			
11:15	OATech+ Network (Great Hall)	Medical Devices & Diagnostics (Clore)	Mechanics of Tissues & Organs (Read)	Motor Neuron Interfacing & Biomedical Applications Workshop (Pippard)
12:45	Lunch, Posters & Networking - (Queens Tower Rooms)			
13:45	Mechanobiology (Great Hall)	BioMedEng18 Phenomenal Women in Innovation Workshop (Clore)	Recent advances in Mechanical Circulatory Support Workshop (Read)	Synthetic Biology and Engineering Biology (Pippard)
15:00	Poster Session + Tea & Coffee Break - (Queens Tower Rooms)			
15:30	Cardiovascular I & Lymphatic Bioengineering (Great Hall)	Organ on a chip Network (Clore)	Personalised Medicine & Modelling Biological Systems (Read)	Biomedical Imaging (Pippard)
17.00 -18.00	Plenary Session 2 (Organ on a Chip) - Dr Geraldine Hamilton - (Great Hall)			
18.45	Dinner Arrival & Seating - (Queens Tower Rooms)			
19.00 -23.00	BioMedEng18 Dinner with After Dinner Speaker - Prof Sophie Scott			

Colour Bands	Keys
	Opening/ Closing Ceremony
	Poster, Networking Breaks & Lunch
	Plenary Session
	Conference Registration
	Workshop
	Rapid Fire Session
	Dinner / Drinks Reception

BioMedEng18 Summary Schedule: Day 2

08:30	Conference Registration				
09:00	Musculoskeletal Biomechanics, Gait Analysis & Human Movement (Great Hall)	Neurotechnology, Rehabilitation Engineering & Robotics (Clore)	Haemodynamics Workshop: "Reduced-order modelling and pulse wave analysis" (Read)	Cancer Engineering, Drug & Gene Delivery (Pippard)	**BioMedEng18** Careers Workshop (**RSM 3.01 C, D&E**)
10:30	Poster Session + Tea & Coffee Break - (Queens Tower Rooms)				
11:00	Plenary Session 3 - Professor Jonathan Cooper, FREng, FRSE - (Great Hall)				
12:00	Lunch, Posters & Networking - (Queens Tower Rooms)				
13:00	Biomaterials (Great Hall)	Biosensors, Biomedical Signal Processing & Bioelectronics (Clore)	IMPRESS:"Engineering for Continence Care – Innovation for the Stigmatised" (Read)	Cardiovascular Bioengineering II & Biofluids (Pippard)	BioMedEng18 Bioengineering Education Workshop (**Huxley 308**)
14:15	Poster Session + Tea & Coffee Break - (Queens Tower Rooms)				
14:35	Artificial Intelligence & Machine Learning (Great Hall)	Trauma, Surgery, Orthopaedics & Prosthetics (Clore)	Tissue Engineering & Regenerative Medicine (Read)	Biomimetics: "From Biology to Engineering & Back Again" (Pippard)	
15:50	Plenary Session 4 - Professor Hanjoong Jo - (Great Hall)				
16:35	BioMedEng18 Awards & Closing Ceremony - (Great Hall)				
17:00 -18:00	Drinks Reception & Networking - (RSM 3.01 C, D & E)				

Colour Bands	Keys
	Opening/ Closing Ceremony
	Poster, Networking Breaks & Lunch
	Plenary Session
	Conference Registration
	Workshop
	Rapid Fire Session
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BioMedEng18 Conference Schedule: Day 1

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09:30		Welcome Ceremony - Professor Nick Jennings CB, FREng
09:45		Plenary Session 1 (OATech+) - Professor Kyriacos Athanasiou - (Great Hall)
10:35		Rapid Fire Presentations - (Great Hall)
10:55		Poster Session + Tea & Coffee Break - (Queens Tower Rooms)
		OATech+ Network - (Great Hall) Chairs - Prof Cathy Holt & Dr Jonathan Jeffers
	11:15	Gwenllian Tawy, University of Manchester, - 'The Efficiency of a Clinical Motion Capture System for Quantifying Knee Function'
	11:28	Sheetal Inamdar, Queen Mary University of London, - 'Multi-scale in-situ Cartilage Mechanics using Small Angle X-ray Diffraction'
	11:40	Lindsay Millar, University of Strathclyde, - 'Robotic Assisted Unicompartmental Knee Arthroplasty Leads to Improvements in Knee Flexion at Five-Year follow-up in Comparison to Conventional Methods'
	11:52	Geoffrey Ng, Imperial College London, - 'Hip Joint Mechanics Before and After Cam FAI'
	12:05	Jessica Mansfield, University of Exeter - 'Tracking Collagen Fibre Reorganisation under Load in Articular Cartilage using Polarization Sensitive SHG Microscopy'
	12:17	Oliver Morgan, Anglia Ruskin University - 'Pre-Clinical Investigation of an Extra-Capsular Knee Joint Unloading Implant'
	12:30	Nimrah Munir, University of Edinburgh - 'Multizone Scaffolds as Cell Free Platforms for Cartilage Tissue Engineering'
		Medical Devices & Diagnostics - (Clore) Chairs - Dr Silvia Schievano
	11:15	Caleb Gambrah, University of Strathclyde - 'The Development and Hydrodynamic Assessment of a Tri-leaflet Polyurethane Heart Valve Prosthesis'
	11:28	Selim Bozkurt, UCL Great Ormond Street Institute of Child Health, -'Towards a Novel Device for Treatment of Unicoronal Craniosynostosis'
	11:40	Yuetao Li, University of Southampton, - 'Rapid Detection of β-lactam Resistant Bacteria via an Integrated Microfluidic System'
	11:52	Yousuf Makki, University College London, - 'Real-time Imaging of Radio-Frequency Ablation Using All-Optical Ultrasound'
	12:05	Syed Anas Imtiaz, Imperial College London, - 'A Low-power System for Automatic Sleep Monitoring and Diagnosis'
	12:17	Momen M. Osman, Imperial College London, - 'Behind-the-Ear Wireless Micro-instrument for Traumatic Brain Injury Neuroelectrochemical Monitoring'
	12:30	Adrian Nightingale, University of Southampton, - 'Wearable Droplet Microfluidics for Real-time Continuous Monitoring of Tissue Chemistry'
		Mechanics of Tissues & Organs - (Read) Chairs - Dr Nuria Gavara & Dr Joseph Sherwood
	11:15	Sherif Elsharkawy, Queen Mary University of London, - 'Highly-ordered Mineralised Structures for Dental applications'
	11:28	Joseph Sherwood, Imperial College London, - 'Characterising Mechanical Forces in the Outflow Pathway of the Eye'
	11:40	Darryl R. Overby, Imperial College London, - 'Mechanoregulation of Intraocular Pressure by Nitric Oxide'
	11:52	Colin Boyle, Imperial College London, - 'Hacking the Skin's ability to bear Load'
	12:05	Alastair Gregory, University of Cambridge - 'A Physical Mechanism for Wheezing in Lungs'
	12:17	Richard Pangonis, Imperial College London, -'A Novel Mechanical Testing Apparatus for Brain Tissue'
	12:30	Hari Arora, Swansea University - 'Synchrotron imaging of the lung: dynamic mechanical characterisation of the micro-architecture'
		Motor Neuron Interfacing & Biomedical Applications Workshop - (Pippard) Chairs - Dr Silvia Muceli & Dr Ivan Vujaklija
	11:15	Keynote Speaker: Professor Simon Gandevia, Neuroscience Research Australia, - 'Motor Neurons: some unexpected messages'
	11:40	Mario Bräcklein, Imperial College London - 'Decorrelation of Common Input to a Muscle's Motor Neuron Pool'
	11:52	Gonthicha Puttaraksa, Imperial College London - 'Common and independent synaptic input to motor neurons in essential tremor patients'
	12:05	Michael Rotherham, Keele University - 'Remote control of cell signalling with magnetic particles for neuronal cell differentiation- emerging therapies for Parkinsons disease'
	12:17	Nathan Steadman, John Radcliffe Hospital, Headington, Oxford - 'A Robotic System to Automate Parameter Tuning for Deep Brain Stimulators'
	12:30	Dr Alessandro Del Vecchio, Imperial College London - 'You are as fast as your motor neurons: Early recruitment and maximal discharge of motor neurons determine the maximal rate of force development in humans'
12:45		Lunch, Posters & Networking - (Queens Tower Rooms)
		BioMedEng18 Phenomenal Women in Innovation Workshop - (Clore) Chairs - Dr Gifty Tetteh & Prof Ipsita Roy
	13:45	Professor Alison Noble OBE FREng FRS, University of Oxford, - 'TBC '
	13:55	Dr Kath Mackay, Innovate UK - 'TBC '
	14:05	Professor Alison McGregor, Imperial College London, - 'The Accidental Innovator'
	14:15	Dr Katerina Spranger, OxfordHeartbeat, - 'From STEM Student to a MedTech Entrepreneur: a Personal Perspective?'
	14:25	Prof Ipsita Roy, University of Westminster, 'My Exciting Scientific Journey: from Chemistry to Biochemistry to Biomaterials'
	14:35	Dr Susannah Clarke MBE, Embody Orthopaedic, - 'The Long Road to 'First in Man''
	14:45	Panel Discussion
		Mechanobiology - (Great Hall) Chairs - Dr Christina Warboys & Dr Darryl Overby
	13:45	Christina Warboys, Imperial College London, - 'The role of Wnt/β-catenin signalling pathways in endothelial mechanotransduction under disturbed and undisturbed flow'
	13:58	Ryan Petrie, Drexel University, - 'Myosin II governs Intracellular Pressure and Traction by Distinct Mechanisms'
	14:10	Mean Ghim, Imperial College London, - 'Segmentation of Endothelial Cell Growth in a Swirling Well Plate allows Investigation of the Shear-Dependent Release of Soluble Mediators'
	14:22	David Barrett, Queen Mary University of London, - 'Mechanotransduction Mechanisms leading to Fetal Membrane Weakening and Tissue Damage'
	14:34	Josefin Jansson-Edqvist, Imperial College London, - 'Engineering in vitro Blood Vessels for Studying Endothelial Cell Function'
	14:46	Derek Warren, University of East Anglia, - 'Vascular Smooth Muscle Cell Contractile Response is altered by Matrix Stiffness'

		Recent advances in Mechanical Circulatory Support Workshop - (Read) **Chairs - Dr Katharine Fraser & Prof Ashraf Khir**
	13:45	Keynote Speaker: Dr Christopher Bowles, Harefield Hospital, - ' What do clinician's want from new MCS devices?'
	14:10	Keynote Speaker: Professor Cathy Thornton, Swansea University, - 'Measurement of Blood Damage due to Fluid Stresses and Biomaterials'
	14:34	S. McConchie , Calon Cardio-Technology Ltd. - 'A UK VAD: from Engineering to Clinical Trials'
	14:46	Dr K. H. Fraser, University of Bath - 'Pulsatile Flow in Ventricular Assist Devices: CFD Analysis of Velocity Fields around the Pressure-Flow Loop'
		Synthetic Biology and Engineering Biology - (Pippard) **Chairs - Dr Thomas Ouldridge & Dr Rodrigo Ledesma-Amaro**
	13:45	Ismael Mullor Ruiz, Imperial College London, - 'Design and Development of DNA-based Push-pull Networks'
	13:58	Rodrigo Ledesma-Amaro, Imperial College London, - 'Affordable microbial bio-manufacturing by Multilevel Strain Engineering'
	14:10	Govind Menon, Imperial College London, - 'Modelling and Systems Analysis for Elucidating and Engineering Compartmentalisation in Synthetic and Natural Biochemical Pathways'
	14:22	Alexander Ohmann, University of Cambridge, - 'A Synthetic DNA-built Enzyme flips 10^7 lipids per second in Biological Membranes'
	14:34	James Hindley, Imperial College London, - 'Engineering Molecular Machines that can Sense and Respond to their Environment'
	14:46	Yuval Elani, Imperial College London, - 'A Toolkit for the Construction of Vesicle-based Artificial Cells: Microfluidics, Optics, and Biomembrane Engineering'
15:00		**Poster Session + Tea & Coffee Break - (Queens Tower Rooms)**
		Cardiovascular I & Lymphatic Bioengineering - (Great Hall) **Chairs - Dr Chris Cantwell & Dr Sam Au**
	15:30	Ethan Rowland, Imperial College, London – 'A New Method for Non-Invasive Measurement of Arterial Wave Speed, Intensity and Reflection'
	15.43	Anastasia Nasopoulou, King's College, London, - 'Can we estimate myocardial material parameters from reduced 2D imaging data?'
	15:55	Konstantinos Tzortzis, Imperial College London, - 'Simultaneous optical mapping of transmembrane potential and electrogram recordings in human heart slices'
	16:08	Shuo Wang, University of Cambridge, - 'Bayesian Inference-based Estimation of Normal Aortic, Aneurysmal and Atherosclerotic Tissue Mechanical Properties: from Material Testing, Modelling to Histology'
	16:20	Daniel Watson, Swansea University, - 'Limb-Scale Modelling of the Lymphatic System'
	16:32	Maximilian Balmus, King's College London - 'An overlapping domain method for hemodynamics based on weighted sums'
	16:44	Max Falkenberg McGillivray, Imperial College London, - 'Unified Mechanism of Atrial Fibrillation in a Simple Model'
		Organ on a chip - (Clore) **Chairs - Prof Martin Knight & Dr Malcolm Haddrick**
	15:30	Liliang Ouyang, Imperial College London, - 'Development of Perfusable Vascular Platform by Using 3D Bioprinting'
	15.43	Arianna Rech, Imperial College London, - 'Engineering a Pulmonary Epithelium-on-a-Chip device to Investigate the Mechanobiology of Lung Disease'
	15:55	Elisabetta Bottaro, University of Southampton, - 'Vein-on-a-chip platforms for evaluating the performance of sclerosing agents'
	16:08	Samantha Peel, AstraZeneca, - 'High-Content Confocal Imaging of Organ-Chips: A Robust and High-Throughput Workflow Enables Evaluation of Drug Candidates in a Liver-Chip model'
	16:20	Lydia Baldwin, University of Hull, - 'Development of a gut-on-a-chip model for the study of inflammatory bowel diseases'
	16:32	Nikki-Maria Koudis, University of Manchester, - 'Cell sheet engineering for kidney-on-a-chip applications'
	16:44	Cyril Deroy, University of Oxford, - 'Microfluidics accessible to cell biology: a network of fluid-constrained channels and droplets'
		Personalised Medicine & Modelling Biological Systems - (Pippard) **Chairs - Prof Perumal Nithiarasu & Dr Nick Linton**
	15:30	Wan Mohd Radzi Rusli, Imperial College London, - 'Importance of dimension reduction in quantifying shape variability in a population'
	15.43	Massimo Capoccia, University of Strathclyde, - 'A Simulation Approach to Guide Therapeutic Intervention in Advanced Heart Failure'
	15:55	Jorge Aramburu, Universidad de Navarra, - 'Numerical modelling of the Fontan circulation'
	16:08	Julio Ortega, Tecnun - University of Navarra, 'Analysis of the influence of the hepatic artery geometry on microsphere and radiation distributions during radioembolization'
	16:20	Anastasia Giannari, Imperial College London, - 'Optimisation of Proactive Therapy for Atopic Eczema by Model Predictive Control'
	16:32	Paolo Gargiulo, University of Reykjavik, - 'Aging Health Behind an Image: Quantifying Sarcopenia and Associated Risk Factors from Advanced CT Analysis'
	16:44	Emilie Sauvage, University College London, - 'Aorta remodelling in babies born with hypoplastic left heart syndrome'
		Biomedical Imaging - (Read) **Chairs - Dr Amanda Foust & Prof. Adam Gibson**
	15:30	Hubin Zhao, University College London, - 'A wearable, modular, high-density diffuse optical tomography system'
	15.43	Hendrik Pauw, University College London, - 'A Scalable and Versatile Method for Fabricating Highly-Directional Optical Ultrasound Sources for Minimally Invasive Imaging'
	15:55	Istvan Huszar, University of Oxford, - 'Registration of Histological Images to Post-Mortem MRI'
	16:08	Matthieu Toulemonde, Imperial College London, - 'Locally activated nanodroplets and high frame rate imaging for real-time flow visualization – preliminary in-vivo demonstration'
	16:20	Bob-Dan Lechner, Exeter University, - 'Microdomain Structure and Mechanical Properties of Lipid Monolayers Mimicking Red Blood Cell Membranes'
	16:32	Antonio De Grazia, University of Southampton, - 'High-throughput microfluidic arraying and imaging of individual skeletal stem cells from human bone marrow isolates'
	16:44	Robert Robinson, Imperial College London, - 'Subject-level Prediction of Segmentation Failure using Real-Time Convolutional Neural Nets'
17:00		**Plenary Session 2 (Organ on a Chip) - Dr Geraldine Hamilton - (Great Hall)**
18:45		**Arrival & Seating - BioMedEng18 Dinner - (Queens Tower Rooms)**
19:00-22:00		**BioMedEng18 Dinner with After Dinner Speaker - Prof Sophie Scott**

BioMedEng18 Conference Schedule: Day 2

08:30	Conference Registration
	Musculoskeletal Biomechanics, Gait Analysis & Human Movement - (Great Hall) **Chairs - Dr Angela Kedgley & Dr Tom Shearer**
09:00	Muhammad Qasim, Anglia Ruskin University, -'The effect of including initial strain in the ligaments on the predictive accuracy of the finite element model of the knee joint'
09:13	Christian Klemt, Imperial College London, - 'Analysis of shoulder muscle forces during functional daily activities'
09:25	Marta Da Conceicao Godinho, Queen Mary University of London, - 'Regional Specific Effect of Elastin Depletion on the Mechanical Properties of Tendon'
09:38	Neil Evans, University of Warwick, - 'A Novel Methodology for Analysis of Lower-Limb Loading with Applications for Implant Testing'
09:50	Louise Jennings, University of Leeds, - 'Development of pre-clinical test methods for assessing functional performance of osteochondral grafts in the tibiofemoral and patellofemoral joints'
10:02	Gwenllian Tawy, University of Manchester - 'Functional outcome of the Medacta GMK-Sphere total knee arthroplasty as quantified by a clinical motion capture system'
10:15	Nicola Omo-Dare, Imperial College London, 'The Effect of Aging on Kinematic Strategy Following Forward Perturbation'
	Neurotechnology, Rehabilitation Engineering & Robotics - (Clore) **Chairs - Prof Ferdinando Rodriguez y Baena & Dr Rebecca Shipley**
09:00	Edward Chadwick, Keele University, - 'Control of a Robotic Hand with an EMG-driven, Real-time Biomechanical Computer Model'
09:13	Felix Russell, Imperial College London, - 'A compliant bicondylar knee for prosthetics, exoskeletons and walking robots:'
09:25	Yazi Aljoboori, University College London, 'Frequency Dependant Facilitation of Motor Evoked Potentials with Transcutaneous Spinal Stimulation'
09:38	Myriam Bontonou, Imperial College London, - 'Lossless compression and entropy estimation of neural spike trains'
09:50	Navjeevan Soor, Imperial College London, - 'All-optical crosstalk-free manipulation and readout of Chronos- expressing neurons'
10:02	Mikolaj Kegler, Imperial College London, - 'Navjeevan Soor, Imperial College London, - 'All-optical crosstalk-free manipulation and readout of Chronos- expressing neurons'
10:15	Georgios Zafeiropoulos, Imperial College London, - 'PANACEA 2.0: A Wireless, High-Performance Multi-instrument for (Bio)Signals Recording'
	Haemodynamics Workshop: "Reduced-order modelling and pulse wave analysis" - (Read) **Chairs - Prof Ashraf Khir & Dr Jordi Alastruey**
09:00	Keynote Speaker: Professor Kim Parker, Imperial College London, - 'Wave Speed on the Arteries'
09:20	Keynote Speaker: Professor Perumal Nithiarasu, Swansea University, - 'Active and Passive Human Digital Twins Based on Reduced Cardiovascular Flow Models'
09:40	Prof A. Hughes, University College London - 'Arterial waves in the pulmonary circulation'
09:52	Dr G. Biglino, University of Bristol - 'Wave intensity analysis from MRI data: linking wave dynamics with vessel morphology?'
10:04	Dr P. Charlton, King's College London - 'A Database for the Development of Pulse Wave Analysis Algorithms'
10:16	Dr M. Negoita, University of Brunel - 'Non-invasive Measurement of Local Wave Speed in Human Ascending Aorta'
	Cancer Engineering, Drug & Gene Delivery - (Pippard) **Chairs - Dr Umber Cheema & Dr Darryl Overby**
09:00	Ewelina Wajs, University of Cambridge, - 'Film bulk acoustic resonator (FBAR) based biosensor for early detection of aggressive prostate cancer'
09:13	Judith Pape, University College London, - 'Investigating Cancer Invasiveness and Vasculature with a Biomimetic 3D Model and Patient-Specific Cancer Associated Fibroblasts'
09:25	Maria Vias, University of Cambridge, - 'Human primary high grade serous ovarian carcinoma organoid cultures for disease modelling and drug screening'
09:38	Sophie Morse, Imperial College London, - 'Drug delivery to the Brain using a Rapid Short-Pulse Ultrasound Sequence and Microbubbles'
09:50	Gareth LuTheryn, University of Southampton, - 'Ultrasound responsive microbubbles enhance the activity of sub-inhibitory concentrations of gentamicin in the treatment of Pseudomonas aeruginosa biofilms'
10:02	Hemmel Amrania, Imperial College London, - "Digistain" mid-IR based Chemical Imaging for Breast Cancer Diagnosis'
10:15	Matthew Dibble, Queen Mary University of London, - 'Developing an Ovarian Cancer Model on-a-Chip'
	BioMedEng18 Careers Workshop - (RSM 3.01 C, D & E) **Chairs - Dr Gifty Tetteh & Ms Katie Dallison**
09:00 - 10:30	IBM - Imogen Hanson, IBM UK Early Professional Attraction & Engagement Events Coordinator Arthritis Research UK - Shereen Sabbah, Research Programme Manager Cambridge Bio-Augmentation - Oliver Armitage, Director Open Accelerator - Giovanni Rizzo, Chief of Innovation Division Teach First - Pip Saran, Experienced Hires Team Leader Entreprenuer First - Olivia Stamp, Associate AA Thornton - Christopher Burnett, Associate Patent Attorney
10:30	Poster Session + Tea & Coffee Break - (Queens Tower Rooms)
11:00	Plenary Session 3 - Professor Jonathan Cooper, FREng, FRSE - (Great Hall)
12:00	Lunch, Posters & Networking - (Queens Tower Rooms)
	Biomaterials - (Great Hall) **Chairs - Dr Helena Azevedo & Prof Michael Sutcliffe**
13:00	Gaston Primo, Queen Mary University of London - 'Creating functional and high complexity hydrogels with electric fields'
13:12	Julien Gautrot, Queen Mary University of London, - 'Protein self-assembly at oil-water interfaces controls nanoscale mechanics, cell adhesion and stem cell fate decision'
13:25	Cristina Martins, INEB /i3S, - 'Lipid-based nanoparticles that counteract gastric infection without affecting gut microbiota'

13:38	Ipsita Roy, University of Westminster, - 'Natural Polymers of Bacterial Origin for Cardiac Regeneration'
13:50	Lihui Peng, Queen Mary University of London, - 'Stem cell culture on nanosheets assembled at the surface of liquid microcarriers for applications in regenerative medicine'
14:03	Rami Mhanna, American University of Beirut, - 'The sulfation of biomimetic glycosaminoglycans controls growth factor binding and subsequent cell proliferation and differentiation'
	Biosensors, Biomedical Signal Processing & Bioelectronics - (Clore) **Chair - Prof. Andrew Flewitt**
13:00	Fabrizio Siracusa, University of Southampton, - 'High speed electro-mechanical single cell analysis'
13:12	Peter Charlton, King's College London, - 'A Signal Quality Index for the Impedance Respiratory Signal'
13:25	Carl Henning Lubba, Imperial College London, - 'Efficient peripheral nerve decoding through massive feature extraction'
13:38	Gareth Evans, University of Southampton, - 'Droplet microfluidics for continuous chemical sensing of cortisol'
13:50	Biswajoy Bagchi, University College London, - 'Flexible and Biocompatible Piezoelectric Nanocomposites for Physiological Pressure Sensing'
14:03	Manousos Klados, Aston University, - 'Personality Computing: Automatic Recognition of Personality Using EEG Functional Connectivity'
	IMPRESS Workshop: "Engineering for Continence Care – Innovation for the Stigmatised" - (Read) **Chairs - Dr Peter Culmer & Dr Thelma Lovick**
13:00	Keynote Speaker: Professor Jenny Southgate, University of York, - 'Tissue Engineering for Better Bladders'
13:25	Dr John Young, University of Portsmouth, - 'Developing a non-invasive biosensor to fingerprint Overactive Bladder'
13:38	Dr Nicola Irwin, Queen's University Belfast, - 'Anti-Blocking Catheter Coatings; from lab to commercial reality'
13:50	Dr Bhavik Patel, University of Brighton, - 'Faecal sensor to understand physiological signalling and muscle dynamics with incontinence'
14:03	Dr Thelma Lovick, University of Bristol, - 'Pelvic Nerve Stimulation for urinary urge incontinence (UUI)'
	BioMedEng18 - Biomedical Engineering Education - (Huxley 308) **Chairs - Prof Martyn Boutelle & Prof Julia Shelton**
13:00	Prof Jimmy Moore – Entrepreneurship in Bioengineering - The BioDesign approach
13:10	Panel Discussion with Danny Green, Entrepreneur-in-residence & Ben Lakey, MRes student
13:30	Prof Adam Gibson – Comparison of Students' Performance in Examinations compared to Group Coursework
13:40	Dr Ian Radcliffe - Group Design Projects / Sports Innovation Challenge
13:50	Dr Tina Chowdhury - Use of the Virtual Lab - Improving Outcomes in Tissue Engineering
14:00	General Panel Discussion - Biomedical Engineering Teaching - Future Directions
	Cardiovascular Bioengineering II & Biofluids - (Pippard) **Chair - Dr Zhongzhao Teng**
13:00	Wesleigh Dawsmith, Queen Mary University of London, - 'Monitoring Dehydration with Osmolality in Whole-Blood Specimens Collected from Cycling Athletes'
13:12	Cristian Soitu, University of Oxford, - 'Cell biology in mini-chambers with fluid walls'
13:25	Kim Parker, Imperial College London, - 'A Functional Model of the Small Arteries'
13:38	Marta Dazzi, Imperial College London, - '3D imaging of arterial permeability in the intact brachiocephalic artery using confocal microscopy'
13:50	Charles Houston, Imperial College London, - 'Electrical waves rotate around a stable core in monolayers of cardiac cells without functional or structural inhomogeneity'
14:03	David Pitcher, Imperial College London, - 'Human Langendorff: Building an ex vivo whole heart perfusion system for high fidelity controlled electrophysiological assessment'
14:15	**Poster Session + Tea & Coffee Break - (Queens Tower Rooms)**
	Artificial Intelligence & Machine Learning - (Great Hall) **Chair - Dr Anil Bharath**
14:35	Gareth Jones, Swansea University, - 'A proof of concept for machine learning application to stenosis detection'
14:47	Girmaw Abebe Tadesse, University of Oxford, - 'Personalised Diagnostic Tool for Infectious Disease'
15:00	David Narganes, University of Leeds, - 'Girmaw Abebe Tadesse, University of Oxford, - 'Personalised Diagnostic Tool for Infectious Disease'
15:12	Lance Rane, Imperial College London, - 'Extracting robust controllers from motion data using computed muscle control and imitation learning'
15:25	Guillem Hurault, Imperial College London, - 'Bayesian Machine Learning to Predict Short-term Course of Eczema Severity'
15:37	Ansab Fazili, Kings College London, - 'Automatic Shadow Detection in Fetal Ultrasound Images'
	Trauma, Surgery, Orthopaedics & Prosthetics - (Clore) **Chairs - 'TBC'**
14:35	Michael Ward, University of Liverpool, - 'Assessing the Mechanical Suitability of 3D Printable Polymers, for Use in Maxillofacial Prosthetics'
14:47	Ugur Tanriverdi, Imperial College London, - 'Development of a soft robotics liner for prosthetics'
15:00	Antonia Pontiki, Kings College London, - 'Chest Wall Reconstruction Using Patient Specific 3D Printing and its Motion Analysis'
15:12	Raelene Cowie, University of Leeds, - 'Pre-clinical Experimental Wear Simulation of an All-Polymer Total Knee Replacement'
15:25	Trang Nguyen, University of Leeds, - 'Biomechanically Controlled Simulation of Traumatic Spinal Cord Injury In Vitro Using a 3D Hydrogel Model'
15:37	Fady Abayazid, Imperial College London, - 'Computational Design of a Dummy Neck for Head-First Impacts'
	Tissue Engineering & Regenerative Medicine - (Read) **Chairs - Dr Tina Chowdhury & Prof Alicia El Haj**
14:35	Clara Hedegaard, Queen Mary University of London, - 'Hierarchical biofabrication: Integrating bioprinting with molecular self-assembly'
14:47	Xinqing Pang, Queen Mary University of London, - 'Engineering the endothelial glycocalyx through defined patterns of peptide self-assembled monolayers'
15:00	Ciro Chiappini, King's College London, - 'Modulating Neural Cell Differentiation with Electrically Active Nanoneedles'
15:12	Oluwadamilola Agbabiaka, Univerisity of Bradford, - 'Fabrication and Characterisation of PCL and PLGA for Vascular Tissue Engineering'
15:25	Iria Echevarria, ISTM (Keele University), - 'Magnetic nanoparticle mediated activation for chondrogenic differentiation of MSCs'
15:37	James S. Bell, Cardiff University, - 'A subfibrillar deformation mechanism in corneal collagen that affords flexibility'

		Biomimetics Workshop: "From Biology to Engineering & Back Again" - (Pippard) Chairs - Prof Holger G Krapp & Dr Huai-Ti Lin
	14:35	Keynote Speaker: Professor Richard Bomphrey, Royal Veterinary College, 'Aerodynamic imaging: implementing a mosquito-inspired sense-and-avoid device on a drone'
	15:05	Dr H. Lin, Imperial College London - 'The role of active vision in dragonfly visual guidance'
	15:20	Dr D. Labonte, Imperial College London - 'How to stick but not get stuck – climbing with adhesive pads'
	15:35	Prof H. G. Krapp, Imperial College London, - 'A Fly(brain)-Robot-Interface to study multisensory integration.'
15:50		Plenary Session 4 - Professor Hanjoong Jo - (Great Hall)
16:35		BioMedEng18 Awards & Closing Ceremony - (Great Hall)
17:00-18:00		Drinks Reception & Networking - (RSM 3.01 C, D & E)