

## **MTRC Conference Programme – 4<sup>th</sup> and 5<sup>th</sup> September 2024, Hughes Hall, Cambridge**

### **Day 1 – Wednesday 4<sup>th</sup> September**

Time	Name	Presentation Title
09:15-09:20	MTRC Director	Welcome
09:20-09:25	Prof Graham Ball	Opening
SESSION CHAIR: MTRC DIRECTOR		
09:25-10:05	1 – Keynote: Prof Yonghong Peng, ARU	AI in Medicine and Health: unlocking its potential to transform the future health
10:05-10:30	2 - Prof Luis Roseiro, Coimbra Institute of Engineering, Portugal	Functional Prototypes in Applied Biomechanics
10:30-10:55	3 – Dr Talip Çelîk, Kocaeli University, Turkey	Fatigue examination in biomedical implants and hip prosthesis
10:55-11:15	COFFEE BREAK	
SESSION CHAIR: PROF MOHAMMAD NAJLAH		
11:15-11:40	4 - Ibrahim Mutlu, Kocaeli University, Turkey	Potential of 3D Printed Electroactive Polymer Composite Layers for Hand Therapy and Prosthetic Applications
11:40-12:05	5 – Pradeep K Adapala and Dr Sudhakara Reddy Pondugula, DCS Pharma	Repurposed Drugs in Pharmaceutical Sciences: A Paradigm Shift in Product Development, Expanding Horizons and Enhancing Efficiency
12:05-12:30	6 - Dr Agilandiswari Arumuga Jothi, Mid and South Essex NHS Foundation Trust	Randomised controlled trial of remotely supervised exercise versus self-directed exercise for intermittent claudication (RESET 2 study)
12:30-12:55	7 – Dr Gouri Koduri, Mid and South Essex NHS Foundation Trust	Understanding the connection between Connective tissue disease and the Lungs
12:55-13:50	LUNCH BREAK	
SESSION CHAIR: DR SILVIA CIRSTEA		
13:50-14:15	8 – Dr Havovi Chichger, ARU	Activation of T1R3 anchors ACE2 at the pulmonary endothelial cell surface to attenuate vascular disruption induced by the SARS-CoV-2 spike protein
14:15-14:40	9 – Dr Rudolph Schutte, ARU	Alcohol and arterial stiffness in middle-aged and older adults: Cross-sectional evidence from the UK Biobank study
14:40-15:05	10 – Prof Abdelbary Elhissi, Qatar University, Qatar	Lipid and surfactant-based systems for pulmonary drug delivery
15:05-15:30	11 – Dr Grisha Pirianov, ARU	Preclinical development of the Toll like receptor 4 (TLR4) antagonist FP12 as a lead compound targeting the DAMP/TLR4 axis in lethal influenza infection
15:30-15:50	COFFEE BREAK	
SESSION CHAIR: PROF SELIM CELLEK		
15:50-16:15	12 – Prof Selim Cellek, ARU	Impact of a new combination anti-fibrotic therapy discovered in ARU
16:15-16:40	13 – Dr Alice Laphorn, ARU	Repurposing drugs to find new medicines to promote wound healing
16:40-17:05	14 – Kieran Feltham, ARU	Repurposing fully annotated compounds for the prevention of hypertrophic scarring
17:05-17:30	15 – Dr Sophie Harding, ARU	Development of a high-throughput phenotypic screening assay to identify novel therapeutics for the prevention of intra-abdominal adhesions
17:30-17:35	Prof Mohammad Nailah	Close

**Exhibitors:** DCS Pharma (Pradeep K Adapala and Dr Sudhakara Reddy Pondugula)  
 Wonderful Scientific (Dr Andrew Lonergan)  
 Medilink Midlands (Becky Sharpe and Raghul Senthilnathan)  
 Office of Translational Research at Cambridge (Anita Marguerie de Rotrou)  
 eg technology (Rouzet Agaiby)

**MTRC Conference Programme – 4<sup>th</sup> and 5<sup>th</sup> September 2024, Hughes Hall, Cambridge**

**Day 2 – Thursday 5<sup>th</sup> September**

Time	Name	Presentation Title
09:15-09:20	Prof Barbara Pierscionek	Welcome
SESSION CHAIR: PROF BARBARA PIERSCIONEK		
09:20-10:00	1 – Keynote: Prof Bhaskar Dasgupta, Mid and South Essex NHS Foundation Trust	The GCA-PMR spectrum: from diagnosis to management
10:00-10:25	2 - Dr Jodie Harrington, ARU (online)	Characterisation of Ocular Lens Model from Human Induced Pluripotent Stem Cells (hiPSCs)
10:25-10:50	3 - Dr Patrick Varga-Weisz, University of Essex	Microbiota shaping anatomy
10:50-11:10	COFFEE BREAK	
SESSION CHAIR: DR GRISHA PIRIANOV		
11:10-11:35	4 – Dr Joaquín de Navascués, University of Essex	A Drosophila model of radiotherapy toxicity to normal tissue
11:35-12:00	5 - Dr James Birrell, University of Essex	Mechanistic studies of [FeFe] hydrogenates: a tale of two sites
12:00-12:25	6 - Prof Mohammad Najlah, ARU	A Novel Approach to Fighting Cancer: Drug Repurposing Combined with Efficient Nanotechnology!
12:25-12:50	7 – Dr Ketan Patel, University of Reading	Improved health by combining dietary restriction and promoting muscle growth in DNA repair-deficient progeroid mice
12:50-13:50	LUNCH BREAK	
SESSION CHAIR: DR DAN ROBBINS		
13:50-14:15	8 – Dr Dan Robbins, ARU	Presenting features of Giant Cell Arteritis (GCA)
14:15-14:40	9 – Gareth Williams, Marks and Clerk	Artificial Intelligence in the MedTech Industries: Intellectual Property Considerations
14:40-15:05	10 – Dr Cagatay Tasdemirci, ARU	Enhancing Remote Robotic Surgery: Comparative Analysis of Control Systems and Haptic Feedback Techniques
15:05-15:30	11 – Dr Ashim Chakraborty, ARU	Predictive risk stratification of premature babies using machine learning: A clinical decision support system
15:30-15:50	COFFEE BREAK	
SESSION CHAIR: DR JASMINE SAMVELYAN		
15:50-16:25	12 – Dr Jasmine Samvelyan, ARU	Characterisation of growth plate dynamics in post-traumatic murine models of osteoarthritis

Parallel workshop with Cambridge Enterprise, Peter Richards Room – 14:00-17:00

16:25-16:40	13 – Kamakshi Jani, ARU	Developing non-invasive mechanically loaded models to identify mechanisms underpinning osteoarthritis predisposition	
16:40-16:55	14 – Mr Sunil Kumar, Cambridge University Hospitals	Core Outcome Measures in Hip Preservation Surgery	
16:55-17:10	15 – Mr Anuj Punnoose, Cambridge University Hospitals	Rehabilitation in FAI: The Cambridge Pilot	
17:10-17:25	16 - Mr Arman Memarzadeh, Cambridge University Hospitals	Muscle Strength and FAI: What do We Know?	
17:25-17:50	17 – Mr Vikas Khanduja, ARU	Role of Technology in Hip Preservation Surgery	
17:50-17:55	Prof Barbara Pierscionek and Prof Yonghong Peng, ARU	Closing Remarks	

**Exhibitors:** DCS Pharma (Pradeep K Adapala and Dr Sudhakar Reddy Pondugula)  
Wonderful Scientific (Dr Andrew Lonergan)  
Medilink Midlands (Costa Philippou and Rachael O'Brien)  
Office of Translational Research at Cambridge (Anita Marguerie de Rotrou)  
eg technology (Rouzet Agaiby)

### **Posters – Wednesday 4<sup>th</sup> and Thursday 5<sup>th</sup> September**

Shadi Amor	Analysis of Growth Plate Dynamics using Avizo Imaging Software on Mechanically Loaded Osteoarthritis Murine Model
Nathan Bytheway	The effect of exercise on gait biomechanics in people with knee osteoarthritis
Prof Selim Cellek	Development of a phenotypic screening assay to discover neoadjuvant treatments to prevent metastasis
Vincenzo De Franco	Harvest or not to harvest: a step-wise decision for radial artery graft selection in surgical coronary revascularisation
Neline Enslin, Pierre Canisius and Dr Ling Hwang	Development of a single-molecule microscope for bioimaging
Kieran Feltham	Adaptation of a phenotypic screening assay to incorporate 384-well plates: opening the door to high throughput screening
Dr Sophie Harding	<b>Investigating the role of phosphodiesterases in myofibroblast transformation in Peyronie's disease.</b>
Kamakshi Jani	Investigating growth plate dynamics using mechanically loaded models to identify mechanisms underpinning osteoarthritis predisposition
Dr Alice Lapthorn	A novel drug combination produces a synergistic effect when inhibiting myofibroblast transformation in an <i>in vitro</i> model of hypertrophic scarring
Dr Ankur Thapar, Gui Movio and Chloe Knight	Scoping review of topical negative pressure and integration of Biodegradable Temporising Matrix

To register for the conference, please visit: [MTRC Annual Research Conference Tickets, Multiple Dates | Eventbrite](#)