ENGINEERING BETTER HEALTH #6
MONDAY 21ST OCTOBER 2024
08:30 - 13:00

Session	Time
Registration and refreshments	08:30 - 09:00
Welcome and Introduction Professor Fran Game - Consultant Diabetologist and Director of R&D, Co-Director Derby Clinical Trials Support Unit	09:00 – 9:05
'The Hustings' - Clinician problems and Engineer Innovations Presentations from engineering and other academic colleagues describing their work/area of expertise and its applications and clinicians describe clinical/healthcare "problems" in their areas of expertise that they would like to address or visions for what they would like to achieve.	09.05 – 10:35
Speed Networking choices and Break An opportunity to book a Speed Networking conversation with any colleagues who delivered a pitch in 'The Hustings' session	10:35– 10:55
Presentation of Research Support Available Professor Fran Game - Consultant Diabetologist and Director of R&D, Co-Director Derby Clinical Trials Support Unit	10:55 – 11:00
Speed Networking Opportunities for discussions, exploring new ideas, starting to build partnerships and exchanging contact details.	11.00 – 12:30
Closing Remarks and Feedback Dr Teresa Grieve - Assistant Director, R&D and Co-Director-Derby Clinical Trials Support Unit	12:30 – 12:35
Networking and Lunch	12:35 - 13:00

'the Hustings'

Name	Institution/Title	Research Interests	Presentation Title
Professor Richard Bibb 09:05 – 09:15	Nottingham Trent University **Associate Dean Research - Nottingham School of Art & Design**	Professor Bibb's research explores the application of advanced product design and development technologies in healthcare. This focuses on digital technologies including 3D scanning, Computer Aided Design (CAD) and Additive Manufacturing / 3D Printing in modelling patient anatomy, design-manufacture of prostheses, surgical planning and the design-manufacture of surgical guides and instruments, 3D printed fluidics and 3D printed pharmaceuticals.	'Digital Design and Fabrication for medical applications'
Dr Sarah Bolton **Dr Janet Bouttell** 09:15 – 09:25	CHEATA **Business Manager** **Health Economist**	Dr Sarah Bolton is an experienced research scientist and Business Manager at CHEATA, a part of NUH NHS Trust, which supports med-tech developers to gather evidence for NHS adoption Prior to CHEATA, Sarah was responsible for Healthcare and Medical Devices at Pera Technology. She has a PhD in Biochemistry and carried out post-doctoral research at Oxford and Leicester Universities before spending over 10 years at AstraZeneca as an Experimental Pathologist in the Respiratory and Inflammation Therapy area. Dr Janet Boutell is a health economist focused on evaluating medtech during the early development stages. A qualified chartered accountant by background, Janet completed an MSc in Health Technology Assessment and a PhD in HTA at the University of Glasgow. This was followed by an Innovate UK KTP post doc with a molecular diagnostic technologies firm. Her expertise is methods of health technology assessment to facilitate the development of cost-effective medical devices which are likely to make a clinical difference for patients and clinicians. Janet has experience of developing value propositions and business models incorporating health economic modelling.	'What does the NHS want from MedTech Innovators?'
Professor Roger Bayston 09:25: 09:35	University of Nottingham **Professor Emeritus Surgical Infection, Co-Lead Investigator, NIHR CAP study**	Professor Bayston's research interests lie in Surgical Infections, Neurosurgery, Urology and Spine Surgery. Current research includes development of antimicrobial devices and biomaterials, including a neurotrauma device that is effective against multi drug resistant bacteria, refined diagnosis of infections in spine surgery, and strategies for avoidance of antimicrobial resistance.	'Wider applications of a novel technology against surgical infection with a sound scientific and clinical pedigree'
Professor Massimiliano Zecca 09:35 – 09:45	Loughborough University **Professor of Healthcare Technology**	Professor Zecca's research activities have always been centered on the understanding of the human being. His strong belief is that a good research on humanoid robotics (partner robots, assistive technologies, and so on) could not leave out of consideration a better and deeper understanding of the human being and its capabilities, in particular for what concerns motion control in high dexterous tasks in a wide range of applications, such as walking or surgery.	'Nearable sensors to improve health and function in older adults'
Dr Ifeanyichukwu Okike 09:45 - 09:55	University Hospitals of Derby & Burton NHS Foundation Trust **Consultant Paediatrician and Honorary Professor**	Dr Okike's current focus is on education materials for parents and healthcare workers aiming towards better outcome for bacterial meningitis in young infants.	'Tech solutions for health and education'
Professor Paul Stewart 09:55 - 10:05	University of Derby **Professor of Control and Systems Engineering**	Prof Paul Stewart is Research Chair in Control and Systems Engineering at the University of Derby, and brings experience and skills from a background in Aerospace and Energy systems. For the past 7 years he has jointly led the iTrend Intelligent Technologies for Renal Dialysis programs with clinicians from Royal Derby Hospital / University of Nottingham Medical School. The team has succeeded in developing a system for continuous non-invasive continuous blood pressure monitoring during dialysis and successfully demonstrated robust hypotension prediction. During that time, a lot has been learned by both academics and clinicians on the team regarding obstacles to collaboration and cooperation between the disciplines. Prof. Stewart will propose a framework to support agile cooperation and innovation in Health Engineering.	'Towards an 'Engineering Better Health' collaborative innovation ecosystem'

Mr Martin Kerr 10:05 - 10:15	University Hospitals of Derby & Burton NHS Foundation Trust **Clinical Scientist**	Martin Kerr is Lead Clinical Scientist in the Gait and Movement Laboratory. The CMAS accredited clinical service performs Gait Analysis on patients of all ages using technologies such as 3D Motion Capture and Foot Plantar Pressure measurement (Pedobarography).	The Challenge of Measurement Verification in Foot Plantar Pressure Studies (Pedobarography)
Professor Jinju (Vicky) Chen 10:15 - 10:25	Loughborough University **Chair in Advanced Materials & Biointerfaces**	Professor Chen's research interest covers antibiofilm surfaces, biosensors for cancer detection, brain health, and modelling aid design for bioengineering.	Novel Materials and Computational Modeling: A Synergistic Approach for Engineering Better Health
Dr. Theo Hughes-Riley 10:25 - 10:35	Nottingham Trent University **Associate Professor in Electronic Textiles**	Dr Hughes-Riley's research interests include electronic textiles, wearables, sensing, internet of things, and human centred design. Dr Hughes-Riley is a multidisciplinary researcher and his interests also cover areas such as medicine, environmental science and physics.	Electronic Textiles for Wellbeing and Healthcare Applications

Delegates

Patrick Agbala	*Healthcare Assistant - University Hospitals of Derby & Burton NHS Foundation Trust*
Dr Sarah Awan	*Consultant in Palliative Medicine - University Hospitals of Derby & Burton NHS Foundation Trust*
Sinead Barker	*Medical Physics & Clinical Engineering - Nottingham University Hospital*
Professor Roger Bayston	*Professor of Surgical Infection - University of Nottingham*
Prof Richard Bibb	*Associate Dean Research - Nottingham School of Art & Design - Nottingham Trent University*
Dr Sarah Bolton	*Business Manager - Centre for Healthcare Equipment and Technology Adoption (CHEATA), Nottingham University Hospitals NHS Trust*
Dr Janet Boutell	*Health Economist, Centre for Healthcare Equipment and Technology Adoption (CHEATA), Nottingham University Hospitals NHS Trust*
Professor Philip Breedon	*Professor of Smart Technologies - Nottingham Trent University*
Dr Sarah Bugby	*Lecturer in Physics - Loughborough University*
Ms Hayley Carter	*Clinical Specialist Physiotherapist - HEE/NIHR Clinical Doctoral Research Fellow - UHDB*
Professor Jinju (Vicky) Chen	*Chair in Advanced Materials & Biointerfaces - Loughborough University*
Dr Ben Cope	*Business Relationship Manager, Innovation & Research - University of Derby*
Dr Rania Edris	*Lecturer Biomedical Sciences, College of Science and Engineering - University of Derby*
Dr Mostafa Elnaggar	*Consultant Gynaecology and Obstetrics - University Hospitals of Derby & Burton NHS Foundation Trust*
Dr David Gomez	*Assistant Professor, Faculty of Engineering - University of Nottingham*
Jo Hamilton	*Renal Specialist Occupational Therapist - University Hospitals of Derby & Burton NHS Foundation Trust*
Dr. Theo Hughes-Riley	*Associate Professor in Electronic Textiles, Advanced Textiles Research Group - Nottingham Trent University*
Ms Emma Hyde	*Head of Diagnostic Imaging – University of Derby*
Mr Martin Kerr	*Clinical Scientist, Gait Laboratory and FES Service - University Hospitals of Derby & Burton NHS Foundation Trust*
Mr Ganesh Kuhan	*Consultant Vascular Surgeon - University Hospitals of Derby & Burton NHS Foundation Trust*
Manzar Maqsood	*Advanced Pharmacist - Acute Medicine - University Hospitals of Derby & Burton NHS Foundation Trust*
Dr Mohsin Mirza	*Consultant, A&E and Research & Quality Improvement Lead - University Hospitals of Derby & Burton NHS Foundation Trust*

Dr Ifeanyichukwu Okike	*Consultant Paediatrician and Honorary Professor - University Hospitals of Derby & Burton NHS Foundation Trust*
Professor Patrick Richardson	*Consultant Ophthalmologist - UHDB, Visiting Professor University of Derby*
Dr Benjamin Smith	*AHP/HCS Clinical Academic Lead, Clinical Research Physiotherapist - UHDB and Honorary Assistant Professor - School of Medicine, University of Nottingham*
Mr Paul Smith	*Maxillofacial Laboratory Manager / Healthcare Scientist - University Hospitals of Derby & Burton NHS Foundation Trust*
Professor Paul Stewart	*Research Chair in Energy and Environment in the Institute for Innovation in Sustainable Engineering (IISE) - University of Derby*
Professor Maarten Taal	*Professor of Medicine and Director of the Academic Unit for Translational Medical Science - University of Nottingham, Honorary Consultant Nephrologist at UHDB*
Mr Robin Thorpe	*Principal Maxillofacial Prosthetist / Reconstructive Scientist - University Hospitals of Derby & Burton NHS Foundation Trust*
Dr Yang Wei	*Senior Lecturer in Wearable Electronic Engineering and Lead of Smart Medical Textile at MTIF - Nottingham Trent University*
Dr Helen Willcock	*Macrogroup Vice-Chair, Senior Lecturer in Polymer Science and Programme Lead for Materials UG Programmes - Loughborough University*
Mr Gordon Wilson	*Lead Prosthetist - University Hospitals of Derby & Burton NHS Foundation Trust*
Professor Massimiliano Zecca	*Professor of Healthcare Technology – Loughborough University*