**Driving Innovation in Midlands Healthcare**

**A Charnwood Campus Life Sciences Cluster Event in Partnership with the University of Leicester’s Institute for Precision Health**

**25th April 09.00 – 15.30**

**Charnwood Campus**

**Loughborough, LE11 5RB**

**A Charnwood Campus, NHS and Academia Collaboration Platform event, part of a series of events and workshops to support the growth and success of the life science organisations clustered around Charnwood Campus Science, Innovation and Technology Park.**

Are you developing a new healthcare product, drug or biomarker?

Are you interested in these therapeutic areas?

* Respiratory
* Cancer
* Diabetes and Lifestyle
* Cardiovascular

Do you require expertise in genomics, proteomics, or structural biology?

Are you looking for a clinical or academic partner?

Are you looking for new research to commercialise?

Are you considering a Precision Medicine approach for your product?

Would you like to have 1-2-1 discussions with world leading clinical and academic experts?

Would you like to develop collaborative projects to de-risk new product development?

Our event aims to grow and develop research partnerships between Industry and the University of Leicester. To facilitate this, pump-prime funding of up to £5K per project will initially be available to help early-stage project development with potential partners following on from this event.

Register for this event [here](https://www.eventbrite.co.uk/e/driving-innovation-in-midlands-healthcare-tickets-541086693867)

For further information on the funding available and how to book slots with our speakers, please contact Dr Lynne Howells at lh28@le.ac.uk or iph@le.ac.uk

**Agenda**

**9.00 - 9.20 Registration Refreshments and Poster Exhibition.**

**9.20 - 10.10 Event Welcome and Introduction to the Institute of Precision Health/Clinical Translation of Respiratory Research.**

Professor Chris Brightling, Co-Director University of Leicester Institute for Precision Health, Honorary Consultant Respiratory Physician, Respiratory Theme Lead for Leicester NIHR Biomedical Research Centre (Respiratory).

**10.10 - 10.30 Developing the Liquid Biopsy for Cancer Diagnostics.**

Professor Jacqui Shaw, Co-Director University of Leicester Institute for Precision Health, Head of Department Genetics and Genome Biology (Genetics).

**10.30 - 10.50 Clinical evaluation and enhancing uptake of MedTech to improve outcomes in diabetes.**

Professor Pratik Choudhary, Honorary consultant in Diabetes, Leicester Diabetes Centre. Chair of Diabetes Technology Network UK.

**10.50 - 11.20 Refreshments and Networking Break.**

Pre-book your 10-minute slot with one of our speakers.

**11.20 - 11.40 Introduction to the PROTAC pipeline.**

Dr James Hodgkinson, Associate Professor of Chemistry and Chemical Biology, School of Chemistry.

**11.40 - 12.00 Developing Novel Biomarkers for Disease Detection.**

Professor Don Jones, Co-Director University of Leicester Institute for Precision Health, Director of van Geest MultiOMICS facility and Dr Jim Langridge, Waters (Biomarkers).

**12.00 - 1.40 Lunch and Networking Break.**

Pre-book your 10-minute slot with one of our speakers.

**1.40 - 2.00 Catalent - Industry Showcase Talk.**

**2.00 - 2.30 Industry collaborations advancing novel cardiac risk prediction tools to the clinic.**

Professor Andre Ng, Head of Department, Cardiovascular Sciences, Professor of Cardiac Electrophysiology, Consultant Cardiologist and Electrophysiologist.

**2.30 - 2.50 Making Industry:University collaborations work**

Dr Lucy Alexander, Head of Business Development, Charnwood Campus.

Dr Tim Hammonds, Royal Society Entrepreneur in residence, Honorary Visiting Fellow

**2.50 - 3.00 – Professor Don Jones. Session close and collaborative opportunities.**

**3.00 - 3.30 Networking and speaker booking slots.**

**Speaker Biographies**



**Professor Chris Brightling**

Professor Chris Brightling’s research focusses on improving the clinical management and understanding the mechanisms of airway diseases such as asthma, chronic coughs and COPD. He has published over 450 peer reviewed articles. Prof Brightling is a Fellow of the Academy of Medical Sciences, National Institute for Health Research Senior Investigator, Respiratory Theme Lead for Leicester NIHR Biomedical Research Centre, Director Institute for Lung Health, and Honorary Consultant Respiratory Physician. He is Coordinator of the MRC Molecular Pathology Node EMBER and Respiratory lead for the IMI 3TR and was founding Director of the European Respiratory Society Clinical Research Collaborations.

Prof Brightling is the national lead for the post-COVID consortium PHOSP-COVID and local research lead for the COVID-19 pandemic. His main research focus is on improving the clinical management and understanding the immunopathogenesis of the airway diseases asthma, chronic cough and COPD. He is a member of the American College of Chest Physicians’ Cough Guidelines, the British Thoracic Society, American Thoracic Society/European Respiratory Society Severe Asthma guidelines and is on the scientific committee for the Global INitiative for Asthma - GINA. Prof Brightling draws on his experience in research excellence and leadership to coordinate the research teams at the University of Leicester and three Leicestershire Partnership NHS Trust sites in their COVID-19 response.

**Professor Jacqui Shaw**

Professor Shaw is Head of the Department of Genetics and Genome Biology, Co-Director of the Institute for Precision Health and Professor of Translational Cancer Genetics at the University of Leicester. Her extensive expertise in innovative blood-based tests for monitoring breast and lung cancers, known as liquid biopsies, is highly sought after through national and international collaborations in clinical studies and trials. Professor Shaw’s research has found that breast cancer recurrence can be detected by a blood test up to two years ahead of when traditional screening techniques would be able to detect it. This highly impactful work enabled US-based genetic testing company Natera achieve the prestigious 'Breakthrough Device' designation from the U.S. Food and Drug Administration (FDA) in 2019 for their Signatera™ test, which offers patients personalised cancer testing.

Professor Shaw’s research group’s expertise is in molecular diagnostics. This expertise was deployed during the coronavirus pandemic to establish and lead on asymptomatic screening for COVID-19 at the University of Leicester, using a quick antigen test known as LAMP - Loop-mediated isothermal amplification. This screening programme has supported the University in the early detection of COVID-19 outbreaks on campus by detecting staff and students with asymptomatic cases who may have unknowingly spread the virus.

**Professor Pratik Choudhary.**

Professor Choudhary is an honorary consultant in Diabetes with a special interest in type 1 diabetes and technology. He has active clinical and research programs around education psychology and technology in type 1 diabetes. In particular, using neuroimaging to explore mechanisms of hypoglycaemia unawareness and use of different strategies such as technology and behavioural interventions to restore awareness.

Professor Choudhary is currently chair of the Diabetes Technology Network-UK working to improve access to technology for diabetes through training education and advocacy. He has experience in academic and industry-funded early-phase studies evaluating novel glucose sensors and closed loop- artificial pancreas systems to help progress technologies, and multinational randomised clinical trials (RCTs) and Real-World Evidence studies to support implementation and policy decisions that have enabled equitable access to developed technologies across the NHS.

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**Dr James Hodgkinson**

Research within the Hodgkinson Group is focused on the synthesis of novel chemical probes and compound libraries designed to study biological processes otherwise challenging by genetic approaches. He is specifically interested in developing chemical probes for Class I Histone Deacetylase (HDAC) enzymes and other protein partners that exist in Class I HDAC multiprotein complexes. Class I HDACs and their associated complexes have been implicated in diseases such as cancer and neurodegenerative disorders. Applications include using these chemical probes to investigate novel ligand-protein interactions and protein-protein interactions within HDAC complexes, and developing heterobifunctional molecules including proteolysis targeting chimeras (PROTACs) for the targeted degradation of Class I HDACs and their associated complex partners in cancer cells. His overall goal and vision is that these validated chemical probes will have direct applications for use by the members of chemical biology and biology communities in revealing new biology, studying disease and ultimately aiding the discovery of new therapeutics.

**Professor Andre Ng**

Professor Ng is an expert in the management of cardiac arrhythmias especially in catheter ablation and the use of mapping systems in such procedures. He has played a key role in the establishment of an active ablation programme for Atrial Fibrillation since 2002 at Glenfield Hospital and has pioneered the use of a novel robotic system in AF ablation. He has provided proctorship for new ablation technologies at many centres worldwide. He also specialises in advance device implantation including pacemakers, implantable cardioverter defibrillators and cardiac resynchronisation therapy (CRT) devices.

He has translated important preclinical findings into investigations in cardiac patients with the successful development of a novel technology for sudden death risk stratification, LifeMap, which won numerous prizes including Medical Futures Award 2011 – Best Innovation in Diagnostics and European Heart Rhythm Association Inventors Award 2016, resulting in several internationally granted patents.

**Professor Don Jones**

Professor Jones is co-director of the Leicester van Geest Multi-OMICs Facility, which is a world-leading centre for biomarker research. Professor Jones’ research involves discovering and implementing novel biomarkers of disease using mass spectrometry techniques, with particular interest in the discovery of biomarkers (proteins, metabolites and lipids) using state-of-the-art analytical techniques in combination with novel data interrogation techniques. From these projects the group are establishing targeted assays for biomarkers and working with pathology colleagues to validate and achieve clinical accreditation for assays.

As Co-director of Institute for Precision Health which helps coalesce precision medicine activity across the University and NHS. All this work helps to underpin the implementation of precision medicine by finding novel tools to personalise diagnosis and treatment in modern medicine.

Professor Jones plays an active role in the NIHR Biomedical Research Centre which allows this research to be translated into clinical use.



**Dr Lucy Alexander**

Head of Business Development and Senior Business Development Manager of Innovation Centre, Charnwood at Charnwood Campus. I am passionate about research translation to real world product and have been delivering research commercialisation for over 25 years. Before joining the Campus, I led the Leicester Life Sciences Accelerator, focused on developing commercialisation of novel medicines and technologies with start-ups

and SMEs.

**Dr Tim Hammonds **

Tim has recently joined the Department of Genetics and Genome Biology at the University as a Royal Society Entrepreneur in Residence and comes with over 25 years’ experience in collaborative translational research. This experience has been almost wholly gained in what is traditionally known as the ‘valley of death’, the translational space directly between academia and industry where the analysis, choice, funding and prosecution of ideas is seen as both difficult and high risk.