

15th October 2026

9am – 4pm

Michael Smith Lecture theatre

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Manchester Meets the Proteome

Following the success of the joint FBMH Technology Platforms and CRUK Manchester Institute 2025 Event, Spatial Biology: See cells in context, we are delighted to announce that this year's joint event will turn the spotlight on proteomics. Rapid advances in proteomic technologies are opening exciting new ways to understand biology — revealing not only which molecules are present, but how they interact, where they are located, and how they shape health and disease.

This one-day meeting will bring together researchers, technology experts and proteomics enthusiasts from across The University of Manchester for a showcase of cutting-edge approaches across the proteomics landscape. Through focused presentations and interactive panel discussions, the event will explore three interconnected themes:

- **Protein Function** – understanding protein interactions and post-translational modifications that underpin biological processes.
- **Spatial and Single-Cell Biology** – revealing how cellular organisation and heterogeneity shape function using emerging spatial and single-cell technologies.
- **Biomarkers and Bioinformatics** – translating molecular discoveries into biological insight through clinical proteomics, biomarker discovery and integrative data analysis.

Each session will combine short research talks with dedicated panel conversations, creating space to exchange ideas, tackle shared challenges and spark new collaborations across disciplines.

Whether your interests lie in technology development, biological discovery or clinical translation, this meeting is a chance to hear fresh perspectives, discover emerging approaches and connect with colleagues shaping the future of proteomics research in Manchester.

When: Thursday 15th October 2026

Where: Michael Smith Building Lecture Theatre and Lounge, Main Campus, University of Manchester

AGENDA:

9.00am – 9.30am	Coffee and Registration	
Session 1: Protein Function – protein-protein interactions, modifications **Chair: Stuart Pepper**		
9.30 -9.40am	Introduction (Stuart Pepper)	
9.40am - 9.55am	Stuart Cain	From the nuclear membrane to the extracellular matrix: a practical guide to proximity biotinylation and proteomics data analysis with Manchester Proteome Profiler
9.55am - 10.10am	Christine Schmidt	Capturing transient ubiquitin-like protein interactions by site-selective photo-crosslinking
10.10am – 10.25am	Duncan Smith	The Usual Conjugates: Investigating Ubiquitin-Like Modifiers
10.25am – 10.40am	Doug Dyer	Glycobiology in Manchester
10.40am - 10.55am	Jonathan Worboys	Photo-catalytic proximity labelling
10.55am – 11.15am	PANEL	
11.15am – 11.45am	coffee	

Session 2: Spatial proteomics / single cell – LDM, hyperion, flow **Chair: David Knight**		
11.45am – 12.00am	Joe Swift	What are we made of & how do we change? Tissue proteomics resolved in space & time
12.00am – 12.15pm	Andrew Gilmore	Practical insights into targeted spatial proteomics using imaging mass cytometry
12.15pm – 12.30pm	Matthias Trost	Low input and single cell proteomics
12.30pm – 12.50pm	PANEL	
12.50pm – 2.00pm	lunch	

Session 3: Biomarkers and Bioinformatics – longer session – affinity, clinical proteomics, integrative informatics **Chair: Joe Swift**		
2.00pm -2.15pm	Anna Li	Clinical kidney proteomics: plasma, urine and tissue
2.15pm – 2.30pm	Dominic Rothwell	Affinity-based plasma proteomics for biomarker discovery - the CR-UK National Biomarker Centre experience
2.30pm -2.45pm	Healson Ihuoma	Predicting acute graft-versus-host disease
2.45pm-3.00pm	Rebecca Lee	Using multi-modal data to understand the biology of liver metastases in melanoma
3.00pm -3.15pm	Alex Eckersley	Towards a unified proteomic framework for discovering ECM damage mechanisms
3.15pm – 3.30pm	Craig Lawless	Data to Biomarkers: Bioinformatics for Discovery and Translation
3.30pm – 3.50pm	PANEL	
3.50pm – 4.00pm	Closing remarks	

SPEAKERS:



Dr Stuart Cain: After completing his degree, PhD and early postdoctoral work at the University of Sheffield, Stuart moved to Manchester in 2002 to work in what is now the Manchester Cell-Matrix Centre. Since then, he has contributed to several proteomics projects focused on defining the extracellular matrix and applying biophysical approaches to understand matrix organisation and function. Over the past five years, he has worked in Martin Humphries' group developing proximity biotinylation (BioID) workflows and analysing the resulting mass spectrometry data. This work led to the development of Manchester Proteome Profiler, an online platform for analysing quantitative proteomics protein-intensity data.



Dr Christine Schmidt: Christine is a Senior Lecturer and Group Leader in the Division of Cancer Sciences at the University of Manchester. Her research focuses on ubiquitin-like signalling in genome stability, with a particular interest in developing chemical-biology approaches to uncover transient protein interactions and understand how they regulate DNA repair. Her group has developed photo-crosslinking strategies for identifying ubiquitin-like protein receptors and recently used these approaches to define SUMO- and UFM1-dependent signalling modules controlling DNA double-strand break repair by non-homologous end-joining.



Dr Duncan L Smith Head of Mass Spectrometry, Cancer Research UK Manchester Institute

Duncan completed his PhD in Simon Gaskell's laboratory at UMIST in 2000, using LC–MS proteomics to investigate the molecular action of imatinib, which subsequently became a frontline treatment for chronic myeloid leukaemia. He then established proteomics capabilities at Renovo, a University of Manchester spin-off, to investigate the role of TGF-β3 in wound healing. In 2004, he returned to academia to co-found the Proteomics Facility at the Paterson Institute, which he has led since 2006.



Dr Douglas Dyer: Doug did his PhD in Manchester working on an anti-inflammatory protein that regulates chemokines and leukocyte recruitment. This led him to a postdoc at the University of California, San Diego working directly on the interactions between chemokines and the extracellular matrix during leukocyte migration.

Doug then came back to the UK to do another postdoc at the University of Glasgow working on chemokine receptor function in vivo. He then moved back to Manchester on a UoM Presidential fellowship that facilitated getting a Wellcome Trust and Royal Society Sir Henry Dale fellowship to establish my lab in 2020, in 2025 he then secured an 8-year Wellcome Trust Career development award to continue the work in my lab. Doug is now also on the leadership team of the Manchester Cell-Matrix Centre and sit on the Wellcome Trust Discovery Research platform leadership team, that supports the matrix centre, leading the glycomatrix theme.



Dr Jonathan Worboys: Jonathan is a Wellcome Research Fellow based in the Lydia Becker Institute of Immunology and Inflammation and the Division of Immunology, Immunity to Infection & Respiratory Medicine.

Jonathan is originally from South Wales and moved to London in 2006 for his undergraduate studies at Imperial College London, where he read Biology with a year in Europe and spent a year at the Université Paul Sabatier in Toulouse. In 2010 he then moved to the Institute of Cancer Research in London to complete a PhD with Dr. Claus Jørgensen working on oncogenic kinase signalling using mass spectrometry. For his postdoctoral studies he switched fields to work in immunology firstly with Dr. Gloria Lopez-Castejon in 2015 working on the ubiquitination of the innate immune receptor NLRP3 and with Prof. Dan Davis in 2018 where he used super-resolution microscopy to study the organisation of immunoreceptors. In 2024 he received a prestigious 8-year Wellcome Career Development Award to establish his own research group at the University.



Dr Joe Swift: Joe is a senior lecturer at the University of Manchester whose research focuses on the mechanobiology of ageing within the Manchester Cell-Matrix Centre. His research programme investigates how the composition, structure, and physical properties of the extracellular matrix influence tissue health, ageing and disease, with particular emphasis on how cells sense and respond to mechanical cues and how these signals are transmitted through molecular pathways. His laboratory has made significant contributions to understanding fundamental mechanisms of mechanobiology, the effects of cellular senescence on signalling responses, and the role of the extracellular matrix in age-related diseases such as fibrosis. The group also develops advanced mass spectrometry-based proteomics approaches to study extracellular matrix composition and signalling with high spatial and temporal resolution, alongside technologies including atomic force microscopy and 3D bioprinting to characterise and model tissue microenvironments.



Dr Andrew Gilmore: Andrew is a Senior Lecturer in Cancer Sciences at The University of Manchester. His research explores how interactions between cells and the extracellular matrix regulate cell survival and how disruption of these processes contributes to cancer. His work has a particular focus on breast cancer, including understanding how the tissue microenvironment influences cancer development, risk and prevention.



Prof Matthias Trost: Matthias is a proteomics expert with over 30 years of experience in mass spectrometry. He studied Chemistry in Freiburg, Germany, and Manchester, UK, did his PhD in Cellular Microbiology and Proteomics at the Helmholtz-Centre for Infection Research in Braunschweig, Germany and his post-doctoral research at the Institute for Research in Immunology and Cancer in Montréal, Canada. In 2010, Matthias became Group Leader and Head of Proteomics at the MRC Protein Phosphorylation and Ubiquitylation Unit (MRC PPU) at the University of Dundee. In 2017, Matthias was appointed Professor of Proteomics at Newcastle University and in 2026 at the University of Manchester. His main biological interest is in phagosome and macrophage biology. In recent years, his lab has additionally focused on using high-throughput mass spectrometry for drug discovery.



Dr Anna Li: Dr Anna Li is a Clinical Lecturer in Adult Nephrology at the University of Manchester and Manchester Royal Infirmary. Her work applies proteomics to study living kidney donation, nephron loss and kidney disease mechanisms, and to develop translational diagnostics.



Dr Dominic G Rothwell. Deputy Director, Rare Cells Team Lead, CRUK National Biomarker Centre, University of Manchester, UK

After obtaining a BSc(Hon) in Applied Genetics from the University of Liverpool Dominic studied for his DPhil with Professor Ian Hickson at the Weatherall Institute, University of Oxford investigating the functional role of DNA repair genes. After this, he moved into translational research, initially looking for molecular markers in multiple myeloma then immunotherapy trials. In 2011 he joined the Nucleic Acid Biomarkers (NAB) team of Professor Caroline Dive at the CRUK Manchester Institute and began my current research interest in the molecular analysis of liquid biomarkers for the use in precision oncology. This work focusses on utilising multiple analytes, including plasma proteins, circulating free DNA and circulating tumour cells to enable the molecular characterisation of tumours at the genetic, epigenetic, and transcriptional level. Dominic took over as Team Leader of NAB in November 2019 and became Deputy Director of the CRUK National Biomarker Centre in November 2022 where he leads a wide range of biomarker focussed projects, ranging from early detection, diagnosis, MRD through to investigating mechanisms of resistance.



Dr Healson Ihuoma: Healson is a haematology registrar and clinical fellow studying for a PhD at the Cancer Research UK Manchester Institute, within the Leukaemia Immunology and Transplantation group



Dr Rebecca Lee: Rebecca is a senior lecturer in medical oncology at The University of Manchester, The Christie NHS Foundation Trust and a Wellcome early career fellow. Her PhD examined precision medicine approaches to melanoma treatment supervised by Professor Richard Marais and Professor Paul Lorigan. This was followed by work examining how local and systemic immune tolerance is induced through interaction between melanoma and cells within the liver microenvironment as a post-doc clinical fellow in the laboratories of Prof Erik Sahai and Prof Mala Maini. She also has developed a number of translational clinical trials aiming to improve outcomes for patients with melanoma. She has now opened her own laboratory at The University of Manchester focusing on tumour-host interactions with a particular interest in liver metastases.



Dr Alex Eckersley: Alex is a Senior Lecturer in the Centre for Dermatological Research, where he leads a research group investigating the mechanisms and consequences of extracellular matrix (ECM) damage in ageing and disease. His work focuses on basement membrane and the role of cell-signalling matrix fragments (matrikines) in tissue degeneration and repair. He collaborates with industry partners the Boots Group to identify biomarkers of ECM ageing and develop therapies to promote skin regeneration.

His laboratory pioneers advanced proteomic methodologies, including mass spectrometry and bespoke bioinformatics tools for spatial and structural proteomics. Notably, he developed “peptide location fingerprinting” to identify damaged and post-translationally modified proteins in complex samples. Dr Eckersley was awarded a BBSRC New Investigator Award in 2024

and has received multiple early-career funding awards, including direct recognition from the British Society for Proteome Research.



Dr Craig Lawless: Craig heads the Advanced Biological Computing (ABC) platform at the University of Manchester and has over 17 years of experience in bioinformatics. Much of his career has been focused on proteomics, spanning academic research, research technology platforms and industry, including work within a proteomics biomarker company. He has supported a wide range of biological and clinical research programmes through the development and application of computational approaches to analyse complex omics data. More recently, his interests have expanded into multi-omics integration and the translation of large-scale biological datasets into meaningful scientific insight.

Thank you everyone for attending and taking part.