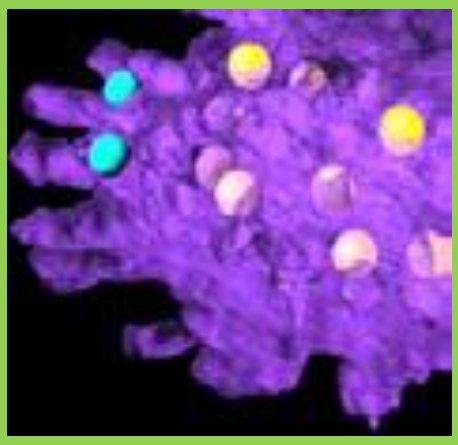
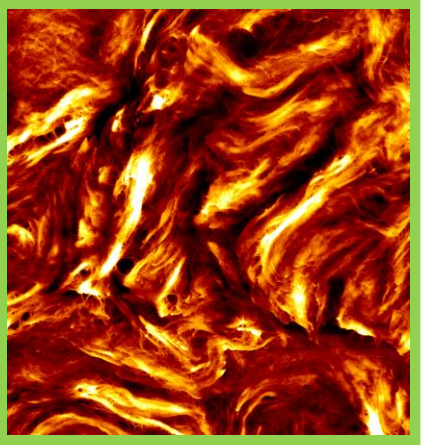
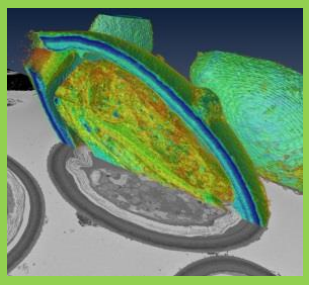
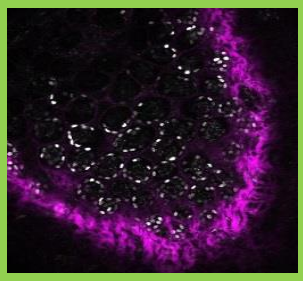
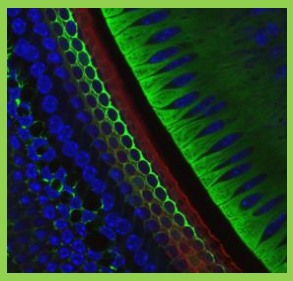
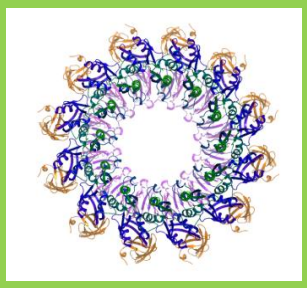
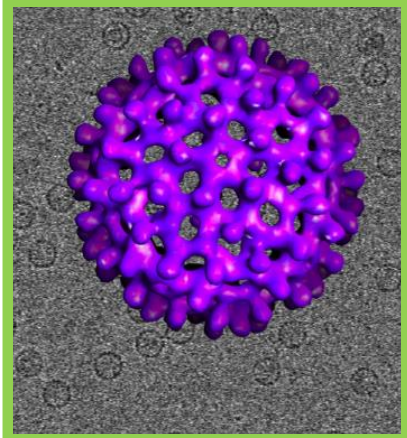




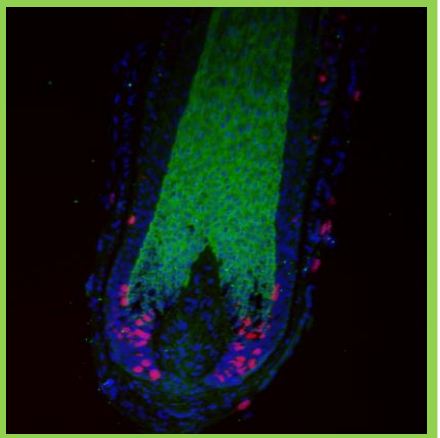
School of Biological Sciences Annual Event

4th April 2022

Building our Future Together: through the delivery of outstanding teaching and learning in biology & biomedical sciences, underpinned by world leading research



#SBSAnnualEvent2022

Foreword

Professor Judith Hoyland, Head of School

It is with great pleasure that I welcome you to 6th School of Biological Sciences (SBS) Annual Celebration Event. This event will allow many of us to get together once again in person and provides a fantastic opportunity to reflect on the School's successes over the past year as well as taking the opportunity to look forward to potential new prospects.

During the last year, academic, research and PS colleagues have continued to work exceptionally hard to continue our high level of performance in research, education and social responsibility (SR) activities throughout the second year of the pandemic. During this challenging period, I have been continually reminded of the collegiality within the School and in particular how deeply colleagues care about their work, providing the best possible experience to our students. However, despite the many challenges of the pandemic it has also given us a significant opportunity to undertake new research, innovate and develop our blended learning strategy – much of which you will hear more about at this event; there will be a great opportunity to learn about some of the highlights of our collaborative activities across the School and Faculty and celebrate our successes and awards. We have had many successes throughout the year including numerous successful large grant awards from a diverse range of funding streams, several new fellowships and a very successful student recruitment round both at UG and PGT level. Of course, the annual event is not the only way of finding out about our activities and successes and therefore I would remind you that staying in touch with the School needs to be part of daily life, through announcements, SharePoint, newsletters and various events. From talking with many of you throughout the year, it is clear that we all have a shared aspiration for SBS to perform at the highest possible level and further our successes. Thus, in order to do so and continue to grow and develop the School we need input and involvement from all staff so I encourage you to grasp any opportunities to 'get involved'.

I would like to say a big 'thank you' to the team of volunteers who have done a fantastic job of organising this event so professionally and to all our presenters. So much effort has gone into the planning – particularly as this as our first major hybrid event.

As always, it has been a great pleasure to work with all members of SBS this year and I continue to learn a lot about the excellent research, teaching and SR activities delivered by our staff. Please enjoy the day and do contact me with any ideas for future events.

School Operations Team

Head of School Operations, Liz Caine

This is the 6th year operating as the School of Biological Sciences and the annual event is a great opportunity for us to acknowledge and celebrate the School's achievements over the past 12 months.

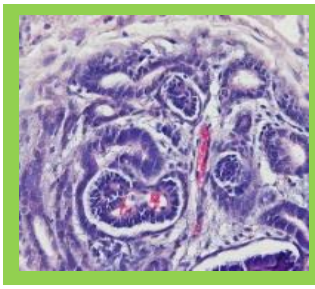
I joined the School in February 2021, and I am very grateful to colleagues for their support and making me feel so welcome. Starting a new role during a national lockdown with various other restrictions across the year has somewhat limited the opportunity to meet many colleagues until fairly recently. I am really looking forward to attending this event in person and hopefully meeting many more of you.

Lastly, I would like to take this opportunity to sincerely thank all those colleagues who have been working tirelessly to keep our research and teaching laboratories and campus operations running smoothly and safely. Colleagues have shown great flexibility and resilience in adapting to blended learning and hybrid working. Before the pandemic many of us had never used Zoom or Teams – and running this event in a hybrid format is a great example of how far we have come with this new way of working. I hope that you enjoy the presentations and the opportunity to reconnect with colleagues if you can join us on campus.

Kate Middleton
Deputy Head of School Operations
(Divisional Operations)

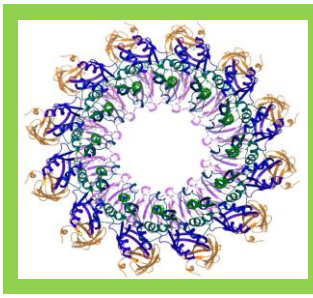
Kerry Mycock, Head of Teaching,
Learning and Student Experience

Our Divisions

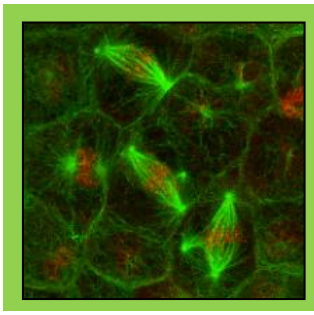


Cell Matrix Biology and Regenerative Medicine: We are interested in two main areas of biology and medicine - the role of the extracellular matrix in the building and repair of tissues and regenerative medicine research, examining new approaches to biological (cell and gene) therapies and tissue engineering.

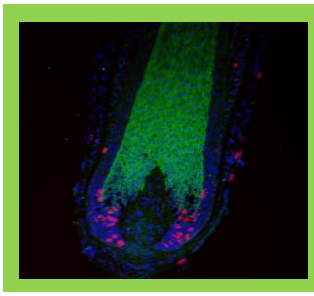
Evolution and Genomic Sciences: We work right across biology and medicine looking at the evolutionary mechanisms involved with molecular, organismal and population based systems. We want to understand the biological functions that emerge from these systems and use this understanding in the context of human genetic diseases so that we can devise new tests and treatments.



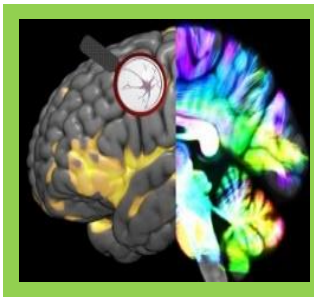
Immunology, Immunity to Infection & Respiratory Medicine: Our work can be broadly split into how microbes are able to cause disease, how allergies impact our bodies and how our immune systems help fight against both. More specifically, we look at the biological and medical science behind infection, allergies and the immune system and try to translate this into better treatments for both infectious and non-infectious diseases. In Respiratory Medicine we conduct discovery science from disease mechanisms through experimental medicine to clinical trials, aiming to optimise treatment of common respiratory diseases by enabling precision medicine.



Molecular and Cellular Function: We look at a key aspect of all life: the cell. We research how a healthy cell works at both the molecular and cellular level by looking at a range of multicellular organisms: from key model organisms, like yeast and drosophila, to the human cell.



Musculoskeletal and Dermatological Sciences: We discover knowledge in two key areas of biology and medicine: the muscles and skeleton, and the skin. Our expertise ranges from basic science (genetics, epidemiology) through to early phase trials and clinical implementation.



Neuroscience and Experimental Psychology: We are a large and multi-disciplinary division adopting a broad range of approaches spanning the study of cell biology, electrophysiology, neurodevelopment and genetics to neuroimaging, cognition and behaviour. We use these convergent approaches to explore fundamental questions in neuroscience, psychology, neurology and psychiatry across the lifespan. Our core aims are to improve understanding of the brain and nervous system in health and disease and to develop new opportunities for clinical intervention, treatment and rehabilitation."

School of Biological Sciences

Annual School Event Programme

University Place

09:00 **In-person Registration Opens:** University Place Reception
Tea & Coffee available

09:30 **Welcome** by Head of School, Prof Judith Hoyland and President & Vice Chancellor, Prof Dame Nancy Rothwell

09:35 **Session 1: Research** **Chair: Prof John McBeth**

- Dr Urszula Cytlak-Chauduri, DIIIRM: *How Radiotherapy Affects the Immune System*
- Dr Mehwish Younas, DNEP: *The Leducq Study*
- Dr Joe Hetmanski, DCMBRM: *Applied Mathematical Modelling to Biology*
- Dr Cecile El Chami, DMDS: *Microbiology and Industry Perspective*
- Dr Alaa Droubi, DMCF: *The inositol 5-phosphatase INPP5B regulates clustering and signaling of the B cell receptor*
- Dr Jamie Ellingford, DEIG; *Genomic Medicine and Bioinformatics*

11:10 **Break**; refreshments provided in University Place

11:40 Session 2: Teaching **Chair: Prof Sarah Herrick**

- Prof Caroline Bowsher, Associate Dean for Pedagogic Development: *What Teaching Might Look Like in 5 Years*
- Dr Dan Cox: *The Amazon Workspace*
- Prof Qing-jun Meng: *Internationalisation & UG/ PG Education*

12:30 **Lunch break & Networking**; refreshments provided in University Place

13:30 Session 3: FBMH Awards & Distinguished Achievements

Research **Chair: Prof Simon Hubbard**

- Prof Dave Brough, 2021 Researcher of the Year (FBMH)
- Ben Calverley, 2021 PGR Student of the Year

Teaching **Chair: Prof Nicky High**

- Dr Paul Shore, 2021 Teaching Excellence Award – Individual Award for Flexible Learning & Digital Delivery (UoM ITL)
- Dr Alex Kafkas, 2021 Teaching Excellence Award – Flexible Learning, Digital Delivery & Covid-19 Environment (UoM ITL)
- Dr Ben Chapman – 2021 Teacher of the Year UoM
- Practical Laboratory Science Biol 10401 Team, 2021 Team Award for the Covid-19 Teaching Environment

15:10 **Break;** refreshments provided in University Place

15:40 Session 4: Keynote Speaker **Chair: Prof Simon Hubbard**

- Prof Andrew Doig: *'This Mortal Coil'*

16:15 **Close & Drinks Reception in University Place**

Abstracts
Session 1: Research

Urszula M Cytlak: How Radiotherapy Affects the Immune System; Radiotherapy is a highly effective treatment given to ~60% of cancer patients but can also induce side-effects on the surrounding normal tissues. These may ultimately lead to chronic inflammation and radiotherapy-induced organ dysfunction which limits the quality of life of cancer survivors. Our team investigates immune responses in a pre-clinical mouse model that mimics localised radiotherapy. Our data suggest that accumulation of innate immune cells drives acute inflammation in normal tissues post-irradiation. Future experiments will investigate the role of innate immunity in the long-term side-effects and identify potential therapeutic targets to alleviate radiation-induced toxicity and improve cancer outcomes.

Mahwish Younis: Stroke-Immune Mediated Pathways and Cognitive Trajectory (Stroke-IMPaCT); Post-stroke cognitive decline (PSCD) is a devastating complication with limited preventive or treatment strategies. Our aim is to prospectively investigate the relationships between altered peripheral blood immune and inflammatory status in acute ischaemic stroke and longer-term PSCD. This is an ongoing, multicentre cohort study in Manchester (UK) and Stanford (USA) recruiting patients (≥45y old, without significant dysphasia, living independently) with ischaemic stroke ≤72h of symptom onset confirmed on brain imaging. Blood will be drawn for comprehensive immunophenotyping and functional assessment of immune cell populations, using high-dimensional multicolour flow-cytometry. 58 patients (median [IQR] age of 72 y [59,82.5]; median [IQR] NIHSS score of 3 [1,7]) have been enrolled to date, with 86% reaching 6-month follow-up. Stroke-IMPaCT will provide novel insights into how reprogramming of specific peripheral immune cell populations during the acute phase of ischaemic stroke relate to subsequent cognitive trajectory.

…Cont. Session 1: Research

Joseph Hetmanski: Synergistic Mathematical Modelling and Experimental Approaches Reveal a Positive Reinforcement Feedback Loop Driving 3D Cell Migration; The use of mathematical models alongside traditional cell biology techniques can be excellent complementary tools to formalise knowledge, make novel, testable predictions and inform future experimental avenues. Such interdisciplinary work flows can be useful for many diverse biological systems, particularly involving complex, non linear dynamics such as for the mechanisms driving cell migration in 3D extracellular matrix. Using a kinetic model based on protein signalling/ biophysical interplay, we predicted and later experimentally validated that rear retraction is driven by a positive feedback loop involving the mechanosensing of low membrane tension propagating to contractility forces. This key rear retraction step provides directional memory to drive directional, rapid migration in complex matrices and may therefore have relevance to the therapeutic targeting of cancer spread.

Cecile El Chami: Lacticaseibacillus Rhamnosus GG Lysate Protects Human Skin from the Damaging Effect of Staphylococcus Aureus and Enhances the Physical and Antimicrobial Barrier of the Epidermis; Atopic dermatitis is characterised by a weak epidermal barrier and colonisation of the skin by the opportunistic pathogen, S. aureus. The increased incidence of antibiotic resistant strains makes the requirement for innovative approaches to prevent infection critical. In this study we investigated the ability of a lysate produced from the probiotic Lacticaseibacillus rhamnosus GG (LGG) to protect human skin in organ culture from the effects of on S. aureus. Topical application of LGG lysate inhibited the colonization of skin by S. aureus, and improved the physical and antimicrobial barrier of the epidermis, therefore enhancing the skin's immune defence against invading microorganisms This suggests that LGG lysate could offer a new approach to the prevention of infection in AD.

…cont. Session 1: Research

Alaa Droubi: The Inositol 5-phosphatase INPP5B Regulates Clustering and Signalling of the B Cell Receptor; The B cell receptor (BCR) is the most abundant receptor on the surface of B cells, and its appropriate activation is critical for normal B cell development and function. BCR engagement by antigen triggers a sequence of cellular events including receptor organization into clusters, the generation of signalosomes, and subsequent immuno-complex internalization. The actin cytoskeleton is a key mediator of these events and undergoes a characteristic and dramatic remodelling upon receptor activation. However, the mechanisms that initiate this remodelling event remain poorly defined. Here, we identify a critical role for the inositol 5-phosphatase INPP5B in this process. Using degron-mediated INPP5B depletion, we show that the loss of INPP5B impairs BCR clustering, and that this is correlated with reduced BCR signalling in cells stimulated with surrogate antigens, both in solution and on coverslips. In both situations, the role of INPP5B is to initiate actin disassembly by hydrolysing PI(4,5)P2. Mechanistically, this can be explained by decreased actin severing by cofilin and increased actin linking to the plasma membrane by ezrin, since the activity of both proteins is influenced by INPP5B-mediated PI(4,5)P2 hydrolysis. These data reveal INPP5B as a new player in BCR signalling, and as such it may represent an attractive target for treatment of malignancies caused by aberrant BCR signalling.

Dr Jamie Ellingford, DEIG (Genomic Medicine & Bioinformatics): Genomic information can inform patient diagnosis, treatment and management for a broad range of human disorders. The emergence of big genomic datasets to address this opportunity has placed increasing pressure on accurate and precise interpretation of genomic variation which can drive or contribute towards disease onset. This talk will describe recent national and local efforts to characterise the utility of genomic testing strategies for individuals with suspected genetic disorders and will describe new variant interpretation strategies and novel biological insights that can be derived from data mining large human genomic resources such as the Genomics England 100,000 genomes project.

Abstracts
Session 2: Teaching

Prof. Caroline Bowsher, Associate Dean for Pedagogic Development
What Teaching Might Look Like in 5 Years

Daniel Cox: Virtually Working; Making Use of Cloud-based Resources to Deliver PGT Research Training; with the recent shift to remote learning, most teaching materials transfer across to a blended approach in a reasonably straightforward manner. However, in some instances students are required to develop knowledge and skills in areas that require direct hands-on engagement, e.g. image data analysis. Here I will describe a case study where Amazon Workspace Solutions was used to facilitate postgraduate teaching in research skills, along with some general thoughts on pros/cons and what the future might offer for AWS in PGT.

Prof. Qing-Jun Meng, **Director of Internationalisation: Internationalisation Initiatives in SBS; i**n this talk, I will outline the FBMH internationalisation strategy and its alignment with the University's global influence theme. I will introduce the Faculty Internationalisation Team and discuss some of the strategic partners we are developing in education and research. I will showcase some articulated degree programs we are developing with international partners, spanning UG and PGT education. I will also highlight some new initiatives to facilitate exchange of PGR students and post-docs under joint supervision by FBMH researchers and their international collaborators. I will also touch on the Bio-SISS International Summer School and finish with priorities and next steps in SBS internationalisation.

Session 3: FBMH Awards & Distinguished Achievements

Prof. Dave Brough, 2021 Researcher of the Year (FBMH): David Brough works to understand mechanisms of inflammation and how they contribute to diseases in the brain. David's lab utilises a range of approaches from chemical biology, through to preclinical disease models to understand inflammation and how it can be targeted.

Ben Calverley, 2021 PGR Student of the Year: My PhD work was as a part of the Wellcome Quantitative and Biophysical Biology programme – taking mathematicians and physicists and throwing us in the deep end in biology! My research focused on modelling the relationship between collagen and the circadian clock, and then in the final 9 months also applying my experimental technique to a COVID-19 drug screen. Throughout my academic career I have balanced a love of science with a love of rugby league and an enthusiasm for volunteer work, both of which I believe have been fundamental to my success so far.

Dr Paul Shore, 2021 Teaching Excellence Award – Individual Award for Flexible Learning & Digital Delivery: The award was in recognition of the huge impact Paul had on supporting and training colleagues across the Faculty, and for his work to design and deliver a new blended learning module for the Cancer Genomics MSc programme. His presentation will focus on future approaches to developing flexible and blended learning in the Faculty.

Dr Alex Kafkas, 2021 Teaching Excellence Award – Flexible Learning, Digital Delivery & Covid 19 Environment: In relation to my Teaching Award, I will describe how my teaching methods evolved during the last 2 years to accommodate the changes imposed by the COVID19 pandemic. I will summarise my approach to developing interactive and engaging material to provide the best learning experience to students

Dr Ben Chapman – 2021 Teacher of the Year: It's a great honour to receive this teaching award. My talk will explore areas of my teaching practice with a focus on building a community of learners within the zoology programme and the value of adopting interactive teaching methods.

Practical Laboratory Science Biol 10401 Team, 2021 COVID 19 Teaching Environment: We are a team of 10 academics from FBMH who designed and delivered a new bespoke online unit to replace Bioscience Laboratory Practical's in the first semester of 2020. We accommodated the increased student numbers (up 20% to 770) and introduced the students to laboratory techniques, data, and analysis to get them started in their degrees. We even managed to put on a socially-distanced hands-on practical in the laboratory before vaccinations were available. For some students this was the only face-face teaching they had during this difficult semester, so they really appreciated our efforts.

Abstract
Session 4: Keynote Speaker

Prof Andrew Doig: This Mortal Coil; Dementia, heart failure and cancer are now the leading causes of death, and life expectancy is now more than eighty, but these are only recent phenomena. A hundred years ago, people died mainly from infectious diseases, like tuberculosis, influenza and pneumonia. In the Middle Ages, it was from famine, plague, childbirth and war. Before we started farming, we frequently died from violence and accidents. Here we shall look at why our main causes of death have changed so much and show that it is due to far more than modern medicine.

SBS Awards, Prizes & Notable Appointments

January 2021 – end March 2022

A summary of major awards and prizes* for SBS (*excluding research awards)

Name	Division	Award / appointment	Date
Professor Matthew Cobb	EIGen	Winner of the Genetic Society's 2021 JBS Haldane Lecture	Jan 2021
Professor Dan Davis	IIIRM	Chair of editorial board for the magazine of the Royal Society of Biology.	Jan 2021
Dr Brendan McGrath	IIIRM	Macintosh Professorship, honorary chair from the Royal College of Anaesthetists.	Jan 2021
Dr Jaleel Miyan	NEP	President-Elect of the Society for Research in Hydrocephalus and Spina bifida.	Jan 2021
Dr Hamied Haroon	NEP	Appointed to the Royal Society's Diversity Committee.	Feb 2021
Professor David Denning	IIIRM	Fellow of the American Academy of Microbiology	Feb 2021
Professor Paul Dark	IIIRM	Appointed NIHR Clinical Research Network academic and clinical oversight strategic lead	March 2021
Dr Claire Hopton	EIGen	2020-21 Daniel Turnberg Cup at the Integrated Clinical Academic Training Virtual Symposium	March 2021
Dr Hannah Durrington	IIIRM	MRC Clinical Scientist Fellowship	April 2021
Dr Richard Naylor	CMBRM	Kidney Research Fellowship	April 2021
Ben Calverley	CMBRM	FBMH Doctoral Academy Awards: Winner of Postgraduate Student of the Year for School of Biological Sciences	April 2021

Name	Division	Award / appointment	Date
Dr Kathryn Hentges	EIGen	FBMH Doctoral Academy Awards:Winner of Outstanding Supervisor of the Year for School of Biological Sciences	April 2021
Joanne Sharpe	SBS	FBMH Doctoral Academy Awards:Highly Commended for Best Contribution to Society	April 2021
Dr Tamara Griffiths	M&DS	British Association of Dermatologists as their 'Outstanding Clinician of the Year 2021	April 2021
Professor Robert Lucas	NEP	Made a Fellow of the Academy of Medical Sciences	May 2021
Tanyaradzwa Mwamuka and team	SBS	Making a Difference Awards Outstanding contribution to equality, diversity and inclusion: Student: My Story Campaign	May 2021
Dr Jen McBride	NEP	Institute of Teaching and Learning Fellowship	June 2021
Dr Thomas Nühse	M&CF	Institute of Teaching and Learning Fellowship	June 2021
Lauren Lucas	SBS	Stroke Association Fellowship	July 2021
Professor Sheena Cruickshank	IIIRM	British Science Writer Award	July 2021
Dr Douglas Dyer	IIIRM	2021 Amanda Proudfoot Tribute Award	July 2021
Dr Ben Chapman	EIGen	Teacher of the Year (FBMH) UoM Distinguished Achievement Awards	July 2021
Professor David Brough	NEP	Researcher of the Year (FBMH) UoM Distinguished Achievement Awards	July 2021
Dr Paul Shore	M&CF	Individual Award for Flexible Learning and Digital Delivery, UoM ITL Teaching Excellence Awards	July 2021
Dr Ben Calverley,	CMBRM	Postgraduate Research Students of the Year, SBS	July 2021
Dr Alexandros Kafkas	NEP	Flexible Learning and Digital Delivery and the Covid-19 Teaching Environment, UoM ITL Teaching Excellence Awards	July 2021

Name	Division	Award / appointment	Date
Genetic Counselling STP Programme Unit BIOL65460, Rhona MacLeod & Teaching Team	EIGen	Team Award for Educational Leadership and the Covid-19 Teaching Environment, UoM ITL Teaching Excellence Awards	July 2021
Practical Laboratory Science BIOL10401 Team: Ruth Grady, Amanda Bamford, Shazia Chaudhry, Sarah Finn-sell, Maggy Fostier, Dave Gerrard, Michelle Keown, Cecilia Medupin, Elizabeth Sheader, Tristan Pocock	SBS	Team Award for Educational Leadership and the Covid-19 Teaching Environment, UoM ITL Teaching Excellence Awards	July 2021
Dr Bella Starling	EIGen	MAHSC Honorary Clinical Chair	July 2021
Dr Mark Roberts	NEP	MAHSC Honorary Clinical Chair	July 2021
Ms Jane Ashworth	EIGen	MAHSC Honorary Clinical Chair	July 2021
Paul Atherton	CMBRM	FBMH Research Associate of the Year (UoM Research Excellence Awards)	September 2021
Dr Yolanda Ohene	NEP	British Science Festival 2021 Award Lecturer	October 2021
Professor Leela Biant	CMBRM	King James IV Professorship of the RCS Edinburgh	October 2021
Professor William Dixon	MDS	Turing Fellowship	October 2021
Dr Joanne Konkel	IIIRM	Wellcome Trust Senior Fellowship	December 2021
Professor Leela Biant	CMBRM	Presidency of the British Association for Surgery of the Knee (BASK) 2022	January 2022
Dr Panos Sergouniotis	EIGen	Wellcome Trust Clinical Research Career Development Fellowship	January 2022
Dr Mato Lagator	EIGen	Inaugural prize in the first thematic open call from the Centre and the Serbian Ministry of Education, Science and Technology for their Micro-gallery	January 2022
Dr Can Zhao	EIGen	3rd place in the Alderley Park Pre-accelerator Programme	January 2022
Professor Maya Buch	MDS	NIHR Senior Investigator	March 2022
Professor Paul Dark	IIIRM	NIHR Senior Investigator	March 2022
Professor Jonathan Green	NEP	NIHR Senior Investigator (reappointment)	March 2022
Professor Paul Dark	IIIRM	Deputy Medical Director of the National Institute for Health Research Clinical Research Network Coordinating Centre	March 2022

Upcoming Meetings & Events

TranslationManchester

Translation Manchester was established in May 2018 as part of a Wellcome initiative to help overcome the obstacles to conducting translational research in Greater Manchester, by bringing together a network of support, facilities and expertise to make the pathway to translation quicker and easier. Part of our role is to help identify the potential of a project to be translated and therefore we support projects at all points along the translational pathway, from discovery based research projects to clinical trials. We help investigators translate their research into healthcare outcomes by forging new and productive connections between academic researchers and the clinical workforce, as well as industry. Every year we run two translational funding schemes- 'Projects for Translation (P4T)' and 'Access to Expertise (A2E)' as well as providing specific funding opportunities tailored to early career researchers. We also develop, facilitate and deliver training in translational research skills and bioinformatics, and we recently launched a bioinformatics support service. If your research requires support, funding or making new connections to move you one-step closer to patient benefit, Translation Manchester is here to help. For the most up to date information visit our website and subscribe to our newsletter.

Ukraine Crisis Appeal

Dear All,

Thank you for registering your attendance at the SBS 2022 Celebration Event on Monday 4 April. As so many of us are coming together we would like to include an opportunity to fundraise for the British Red Cross Ukraine Crisis Appeal. **Ukraine Crisis Appeal | British Red Cross**

The Manchester Bee Company has kindly provided us with a limited number of their BEE UKRAINE button badges which will be sold on the registration desk for a £2 minimum donation. So please remember to bring along any spare coins you have with you on the day. All profits from the badges will go directly to the Red Cross. **BEE UKRAINE BUTTON BADGE - YELLOW + BLUE | The Manchester Bee Company (manbeeco.co.uk)**

Be Active Fundraising Ukraine Crisis appeal

SIXWAYS to wellbeing be active

Join us for some group exercise in person or on Zoom, and help us raise money for the British Red Cross Ukraine Crisis Appeal.

We will be offering fitness fundraiser classes 4th - 15th April 22 No booking needed, just turn up and enjoy! You can donate before you attend or click on the QR Code at the Wellbeing rooms to donate.

Locations: Simon Building, Wellbeing rooms G.66 for the face to face session and click the meeting ID link to join the zoom session. We are offering Pilates, Yoga, Zumba & 30 minute fitness classes.

Read more **here**

View the schedule **here**

Or you can donate via the QR code or by clicking **Here**

With Thanks

Images used in the brochure include those from: Stamatia Papoutsopoulou , Jeremy Derrick, Amanda Bamford, Stuart Cain, Ewan Ramsey and Clair Baldock, James Mcinerney, Talveen Purba, James McConnell, Alan Roseman, Richard Grencis, Bill Newman, Andreas Prokop, Daniela Montaldi