

TACKLING GLOBAL HEALTH CHALLENGES THROUGH INTERDISCIPLINARY KNOWLEDGE EXCHANGE & INNOVATION



THE BLOOMSBURY SET®
CONFERENCE ON INFECTIOUS DISEASE AND AMR
LONDON 2021

SPEAKERS' BIOGRAPHIES:

Monday 22nd February 2021 – 1:30pm to 3:30pm (GMT)

Interdisciplinary knowledge exchange to tackle global health challenges

Dr Emma Tomlinson, Head of Research Development for the Royal Veterinary College and Chair of the Steering Group for the Bloomsbury SET

Key activities include leading on the activities of The Bloomsbury SET, and developing the RVC's relationship with external strategic partners, including the new Life Sciences Opportunity Zone (in Advanced Therapeutics) at Stevenage, the APHA and various knowledge exchange networks.

Dr Jeremy Salt, Chief Scientific Officer, GALVmed

GALVmed is a not-for-profit company working on veterinary medicine development and commercialisation in Low and Middle Income countries. Jeremy's role is to develop the organisation's broad scientific strategy in addition to oversight of, and responsibility for, product development. He is a qualified veterinary surgeon and has a BSc in Pharmacology, an MSc in Immunology and a PhD in viral immunology. Jeremy worked as a practising vet in various countries; worked at IAH, Pirbright Laboratory for seven years including as the Head of the International FMD Vaccine Bank for the last four; worked on vaccine development for 17 years for Pfizer Animal Health in the UK and then Zoetis in Belgium before joining GALVmed.

Professor Joyce Tait, CBE, FRSE, D.Univ.(Open) Co-Director Innogen Institute, University of Edinburgh

Joyce Tait also holds an appointment at Edinburgh's Global Academy of Agriculture and Food Security. She has an interdisciplinary background linking natural and social sciences to support the delivery of innovative technologies with economic and societal benefits. She has worked on: strategic planning for innovation; regulation and standards; and stakeholder influences. Recent research has explored how regulatory adaptation and creative use of standards can contribute to more effective translation of new discoveries to innovative technologies and ultimately to national and global prosperity. Innovation areas covered by this research include: the circular economy; GM, synthetic biology and gene editing; genetic databases; pharmaceuticals and antimicrobial resistance; cell therapies and regenerative medicine; diagnostic devices; and stratified and translational medicine. Recent appointments include: the Regulatory Horizons Council; the Prime Minister's Council for Science and Technology; the Synthetic Biology Leadership Council (and Chair of its Governance Subgroup); and Governing Board of the Industrial Biotechnology Innovation Centre, University of Strathclyde.

Wednesday 24th February 2021 – 11am to 12:30pm (GMT)

Research Translation, Commercialisation and Impact

Professor Chris Taylor, Professor of Social Sciences at Cardiff University and Academic Director, Cardiff University Social Science Research Park (SPARK)

Prior to this he was a Co-Director of the Wales Institute of Social & Economic Research & Data (WISERD). Chris has published extensively on a wide range of educational and social issues and has undertaken research across all education sectors, from early years to higher education. He directs the WISERD Education Data Lab and leads a number of research projects in the ESRC Large Centre on Civil Society in WISERD. Chris is also a member of the ESRC International Public Policy Observatory, collaborating with colleagues in UCL and other UK devolved nations mobilising social research evidence to help policy makers during the recover from the COVID-19 pandemic.

Hugo Villanueva (PhD), Innovation and Business Development Director, Stevenage Bioscience

Hugo supports occupier companies in commercialising their research. With SBC, Hugo is responsible for finding new occupiers and supporting the established community of biotech and life-science companies on campus. Hugo is passionate about life science entrepreneurship and the commercialisation of research and joined SBC from Revena, a research organisation and consultancy supporting and attracting funding for start-ups, spinouts and growing companies in the life sciences sector. He has worked in the past with Clustermarket, a company that rents and share lab equipment to support early-stage research.

Alexandra Anderson (PhD), Strategic Research Officer, London School of Hygiene and Tropical Medicine

Alex joined the London School of Hygiene and Tropical Medicine in May 2015 as a Strategic Research Officer. In this role, she delivers support mechanisms for fellowship and research grant applications across the School with a particular focus on innovation, translational research and knowledge exchange activities. Before joining the School, she worked as a postdoctoral researcher at Imperial College London. In addition to researching neuro-immune communication at Imperial College, Alex chaired the Department of Life Science's Postdoc Committee, organising seminars, mentoring and career development events.

Wednesday 24th February 2021 – 2pm to 3:30pm (GMT)

Funding interdisciplinary global health research

Prof Helen Lambert (D.Phil.), Professor of Medical Anthropology, Department of Population Health Sciences, Bristol Medical School and Challenge Leader for Global Health at UK Research and Innovation

Helen has undertaken long term ethnographic work in India and her research interests include antibiotic resistance and infectious disease, HIV prevention, medical pluralism and treatment-seeking, suicide prevention and gender violence. Since becoming ESRC Research Champion for AMR in 2015, Helen has led initiatives to highlight the role of the social sciences in tackling AMR and build cross-disciplinary research capacity. She currently leads a Newton Fund-supported UK-China AMR Hub, Strategies to reduce the burden of antibiotic resistance in China (STAR-China) and provides social science input into research investigating One Health drivers of AMR in Thailand and the role of pharmaceutical waste in the environment on AMR in India. Helen is a member of the MRC Applied Global Health Research Board, NIHR's Global Health Research panel and WHO's Strategic Technical Advisory Group for AMR.

Ruth Neale, Programme Manager, Global Health and Longitude Prize, NESTA Challenges

Ruth is the Programme Manager for the Longitude Prize (Nesta Challenges' Flagship Challenge Prize) – a £8m prize for the development of a rapid point of care diagnostic to tackle antimicrobial resistance (AMR) – funded by Innovate UK and Nesta. Prior to Nesta Challenges, Ruth worked for an open-access antibiotic drug discovery initiative funded by the Wellcome Trust in Australia and led the global outreach programme and international partnerships. In the UK, Ruth worked for the Royal Society of Chemistry and ran life science and health programmes including their campaign on AMR. She earned a Masters in Chemistry (MChem) with Honours from the University of Edinburgh. Ruth has more than eight years of work experience in AMR and global health from programme management roles, as well as experience in science communication, media and policy.

Jo Frost, UK National Contact Point for Horizon Europe & Global Innovation Lead – Health, Innovate UK

The UK government has announced that the UK will associate to Horizon Europe, the new EU research and innovation programme. Horizon Europe has a budget of €95.5 billion over 2021-2027. Association will give UK scientists, researchers and businesses access to funding under the programme on equivalent terms as organisations in EU countries.

Jo is one of the UK National Contact Points (NCPs) Horizon Europe funding for Health. The network of NCPs provide guidance, practical information and assistance on all aspects of participation in Horizon Europe. Jo is based at Innovate UK, part of UKRI. Previously she worked: at the MRC as an International Relations and Funding Manager; at Oxford University as a Senior European Advisor then Senior Research Facilitator; at UKRO (the UK Research Councils Office in Brussels) as a European Advisor; and at NERC.

Dr Aygen Kurt-Dickson, Research and Innovation Strategy Manager, LSE

Aygen is Steering Group member of the Bloomsbury SET KE programme. Aygen supports development of strategic funding plans for academics, research groups and departments at LSE; whilst working towards policy and strategy development for research and innovation at institutional level, and linking research to innovation life cycle. Aygen has a PhD in Innovation Studies from UEL, which she studied as a Jean Monnet scholar, (partially funded by the European Commission), and has experience of working as research fellow in an EU FP7 project researching on ethical/social implications and governance of technological development process.

Thursday 25th February 2021 – 11am to 12:30pm (GMT)

Responding to emerging infectious diseases

Dr Mehroosh Tak, Lecturer in Agribusiness, RVC

Mehroosh is a lecturer in Agribusiness at RVC focusing on the applied economics of agricultural policies and food systems in low and middle-income countries (LMIC). She specialises in using mixed method approaches to research agricultural interventions and nutrition programmes in LMIC settings. Dr Tak earned her PhD in Economics from SOAS. Mehroosh's Bloomsbury SET project team consists of political economists from SOAS and educational theory experts from RVC.

Professor David Brodbelt, Professor of Evidence Based Veterinary Medicine, RVC

David's Bloomsbury SET project team represents a collaboration of epidemiologists, clinicians and data scientists from the RVC, LSHTM and Manchester Metropolitan University.

Professor Dave Brodbelt, Dr Dan O'Neill and Prof David Church oversee the RVC VetCompass programme that routinely collects data from over 1800 practices across the UK. Mr Noel Kennedy leads the IT team that powers VetCompass and has extensive experience of applying machine learning to clinical records. Dr Collette Taylor is undertaking a PhD within VetCompass and works closely with the electronic records within the project.

Dr Sam Clifford is an Assistant Professor in machine learning at LSHTM and brings a wider perspective of machine learning applied to a diverse set of challenges. Prof Yonghong Peng is Professor of artificial intelligence at Manchester Metropolitan University and has extensive experience of working with text, image and other data types in the context of a range of health and other challenges.

Luzia Freitas, MSc, Tropical Diseases Data Scientist, RVC
Luzia Freitas is a Tropical Diseases Data Scientist at the Royal Veterinary College (RVC), having previously worked as a Programme Manager at the Infectious Diseases Data Observatory (IDDO), University of Oxford. Luzia has experiences leading a series of large surveys on LF- STH and gastrointestinal diseases including rotavirus in Timor-Leste which prompted her government to introduce MDA and rotavirus vaccines respectively. Luzia works in a team with Dr Julia Halder (Postdoctoral Research Associate and Teaching Fellow, RVC/Imperial College London), Mr Amadou Jallow (WHO/TDR Clinical Research Fellow and Programme Manager for Public Health Surveillance, Ministry of Health, The Gambia and Dr Martin Walker (Lecturer in Epidemiology, RVC).

Winnie Ntow-Boahene, PhD Student, RVC

Winnie is a final year PhD student with an interest in nanotechnology and novel antimicrobial strategies. Her previous research has focused on antimicrobial resistance in *S. aureus* strains isolated from dairy cows displaying clinical mastitis. She currently work in a lab led by Professor Liam Good. This lab utilises the antimicrobial polymer PHMB to develop nanoparticles which can be loaded with a wide range of small molecules. This improves small molecule and drug delivery into cells with various applications in cell biology and improving antimicrobial therapies.

Neil Paton, Lecturer in Farm Animal Health and Production, RVC

Neil currently serves as the Technical Director of Gwaredu BVD and works with the Welsh farming industry to eradicate BVD from Wales through Animal Health and Welfare Wales. He is an active member of the Welsh Branch of the British Veterinary Association, where he currently serves as Senior Vice President, having previously served as Junior Vice President and President. This research was conducted with Laura Buggiotti, Aleks Schaefer, and Liz Chan-Armitage as part of the Bloomsbury Fellowship entitled “Mining RNA unmapped reads: developing a fast diagnostic tool for infectious disease in cattle”.

Dr Laura Buggiotti, Bloomsbury SET Innovation Fellow, RVC

Laura is currently working on developing a fast, accurate and cost-effective diagnostic tool for infectious disease in cattle. She works towards tracking many varied pathogens from a single blood sample providing evidence which could be used for surveillance programs by using a bioinformatic approach. In fact, the level of the pathogen genome transcriptome will be used as a herd infection predictor for monitoring and preventing the disease, as prevention is better than cure. Thus, the final goal of this project is to develop a high quality molecular surveillance service for bovine pathogens and once the tool is developed the underlying concepts will be extremely useful in disease surveillance in other countries, particularly in under-developed regions. A single sample can be used to survey a large number of pathogens at the same time leading to a better understanding of which prevention/treatment strategies are needed.

Caroline Broad, Director, Broad Associates Ltd and Entrepreneur in Residence, RVC

Caroline delivers interactive workshops for researchers, enhancing their productivity, collaboration skills and wellbeing in the context of innovation and enterprise. Caroline is currently the Entrepreneur in Residence for the Royal Veterinary College, Deputy Module Leader for Project Management in Clinical Trials for the London School of Hygiene and Tropical Medicine and delivers build your own business, Industry Academia Collaboration and Human Factors in Innovation and Enterprise programmes for UCL, University of Cambridge and Imperial College London.

Caroline is a certified practitioner in Neuro Linguistic Programming (NLP) and Belbin™ Team Roles, is a C-Me Profiling and Resilience Leader Elements accredited. Caroline lives near Cambridge and owns a campervan named ‘Nerys’. Caroline works with Action for Happiness, volunteering to co-run a local Happy Café.

Thursday 25th February 2021 – 2pm – 3:30pm

Applying innovation and knowledge exchange approaches to the field of emerging infectious disease

Dr Martin Smith, Head of Manufacturing Sciences and Technology, Vaccines Manufacturing and Innovation Centre

Martin is an accomplished leader in the biopharmaceutical industry with over 20 years of technical and managerial experience across early and late phase bioprocess development and validation projects. He has led process scale-up, technology transfer and manufacturing of clinical and licenced monoclonal antibodies and a vaccine for HPV. He is a Fellow of the Institution of Chemical Engineers.

Sarah Cordery (PhD), Scientific and Research Coordinator, Global Antimicrobial Resistance Innovation Fund (GAMRIF)

GAMRIF is a UK aid fund that supports the development of novel biomedical innovations to tackle antimicrobial resistance for the benefit of people in developing countries, where the burden of drug resistance is highest. As well as government, Sarah has worked across industry and academia; she gained her PhD (in Pharmaceutics and Pharmacology) from the University of Bath, focusing on wearable devices which deliver medicines into the body via the skin. Among other research interests, she has worked on R&D of medical inhalers, non-invasive sampling for therapeutic monitoring, and most recently, on bio-aerosols at the UK Defence Science and Technology Laboratory.

Professor Paul Davis, Chief Scientific Officer, Mologic

After nearly four decades in Unilever Research (during which he was one of the inventors and founders of ClearBlue lateral flow technology), Paul Davis has founded/co-founded 8 science-based businesses since becoming an entrepreneur in 2002. The largest of these is Mologic, a diagnostics business, focussed on inflammation and infection especially in relation to global health. After a time as an Alere subsidiary (operating as Alere's exploratory research group), Mologic was bought back by its two founders (Paul and his son, Mark) in December 2014. Since then, the company has more than trebled in size. From the start of 2017 Mologic has hosted the "Centre for Advanced Rapid Diagnostics" which is a not for profit exploratory research group funded by the Bill and Melinda Gates Foundation. In 2020 Mologic founded the "Global Access Diagnostics" spin-out as an NFP social enterprise. He holds honorary academic appointments as Honorary Professor, Universities of Warwick, Kent and Cardiff (Medical School) and Principal Visiting Staff Member, Biochemical Engineering, UCL.

Dr Ying Chen, Head of Research & Knowledge Exchange, SOAS University of London

Ying is an experienced Research Support Manager with a demonstrated history of working in academic and industrial research. Skilled in Analytical Skills, Scientific Writing, Team Leadership, Research and Development (R&D), and Scientific Communications. Strong research professional with a Doctor of Philosophy (PhD) in Neuroscience from University of Southampton. She was also a principal investigator and a lecturer in Biomedical Sciences at the University of Surrey for 10 years.

Friday 26th February – 11am – 12:30pm

Connecting capabilities: building successful interdisciplinary collaboration and what's next for the Bloomsbury SET

Dr Ray Kent, Lead for The Bloomsbury SET and Director of Research Administration, RVC
Ray is involved in the development and implementation of strategies designed to maximise the College's reputation and income from research and knowledge exchange, and enterprise activities including science and innovation policy. Externally, Ray is involved in KQ (Knowledge Quarter London), ARMA, the Leadership Foundation for Higher Education, PraxisAuril and Vitae.

Professor Janet Hemingway, Professor of Tropical Medicine, Liverpool School of Tropical Medicine

Janet is also a Senior Technical Advisor on Neglected Tropical Diseases for the Bill and Melinda Gates Foundation, and has 38 years' experience working on the biochemistry and molecular biology of specific enzyme systems associated with xenobiotic resistance. Professor Hemingway has been PI on projects in excess of £200 million including the BMGF funded Innovative Vector Control Consortium, the UKRI funded iiCON Consortium, the ERDF funded Formulations programme and the BMGF funded Visceral Leishmaniasis Elimination programme. Professor Hemingway was appointed the Director of LSTM in 2001 and stepped down on 1st January 2019 having overseen a period of exceptional growth of the organisation. This included the awarding of Higher Educational Institution Status & Degree Awarding powers to LSTM. Professor Hemingway was awarded the Commander of the British Empire (CBE) for services to the Control of Tropical Disease Vectors 2012.

Professor Claire Heffernan, Director of London International Development Centre and the Principal Investigator on the UKRI GCRF Action against Stunting Hub

Claire's work focuses on facilitating interdisciplinary research across seven University of London institutions aimed at addressing critical challenges in international development. Her research interests range from climate change impacts on food security, nutrition and health, to the behavioural drivers to resilience and adaptation to the rise in antimicrobial resistance across the global South. She joined LIDC and RVC from the School of Veterinary Sciences at the University of Bristol where as Head of Infection and Immunity she initiated the Risk and Resilience Hub, which explores four inter-linked critical global challenges: climate change and health, antimicrobial resistance, sustainable food systems and disease emergence.