ANTIMICROBIAL CHEMOTHERAPY VIRTUAL CONFERENCE

2 & 3 February 2021

Jointly organised by the BSAC and GARDP

BRITISH SOCIETY FOR ANTIMICROBIAL CHEMOTHERAPY

GARD P

Global Antibiotic Research & Development Partnership

For 2021, the conference collaborators are the Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), the German Center for Infection Research (DZIF) and the International Research Alliance for Antibiotic Discovery and Development (IRAADD) (a JPIAMR funded network)

DZIF German Center for Infection Research

IRAADD

HIPS HELMHOLTZ Institute for Pharmaceutical Research Saarland

PROGRAMME: 2 FEBRUARY

1300 Introductory remarks
Professor Laura JV Piddock, Director of Scientific Affairs, Global Antibiotic Research & Development Partnership (GARDP)

SESSION ONE: KEYNOTE PRESENTATION

Chair: Professor Laura JV Piddock, Director of Scientific Affairs, Global Antibiotic Research & Development Partnership (GARDP)

1305
The politics of drug development
Dame Sally Davies, UK Government Special Envoy on Antimicrobial Resistance, UK Department of Health and Social Care

1325
Q&A

1335
BREAK

SESSION TWO: EARLY DRUG DISCOVERY

Chair: Dr Marcus Miethke, Scientist & Project Manager, Helmholtz Institute for Pharmaceutical Research Saarland (HIPS)

1345
In vitro and in vivo profiling of natural products from Myxobacteria towards the development of anti-infective drugs
Dr Jennifer Herrmann, Scientist, HIPS/HZI & DZIF

1400
Gram-negative antibacterial discovery - looking for the high-hanging fruits
Dr Benjamin Blasco Discovery Senior Project Manager, GARDP

1415
Microbial natural products: still an untapped source for novel antibiotic discovery
Dr Olga Genilloud, Scientific Director, Fundación MEDINA

1430
Q&A
All speakers

1440
BREAK

SESSION THREE: PRE-CLINICAL ANTIMICROBIAL DEVELOPMENT

Chair: Professor Alasdair MacGowan, Consultant in Infection at North Bristol NHS Trust & Professor of Antimicrobial Therapeutics at the University of Bristol

1450
From old drugs to new: Repurposing old antibiotics to combat antimicrobial resistance
Dr Christopher Darlow, MRC Clinical Research Fellow, Institute of Systems, Molecular & Integrative Biology, University of Liverpool

1505
Linking PK and PD studies in animals with PBPK/PD modelling – in silico from mouse to human
Dr Katharina Rox, Postdoc, HZI/DZIF

1520
Pre-clinical development of Corallopyronin A – a novel natural product active against helminths, STIs and Staphylococci
Professor Achim Hoerauf, Institute of Medical Microbiology, Immunology and Parasitology, University Hospital Bonn/DZIF

1535
Q&A
All speakers

1545
BREAK

SESSION FOUR: POSTER SESSION

Chair: Prof Dr Rolf Müller, Head of Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS) & Department Microbial Natural Products (MINS), Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS)

1555
Clinical outcomes in Carbapenem resistant Enterobacteriaceae infections treated with Ceftazidime-avibactam: A single centre observational study
Balram Rathish, Clinical Fellow in Infectious Diseases, Aster Medcity, Kochi, India

1558
5-Fluorouracil – mechanism of action and resistance mechanisms
Sara Henderson , Research associate, Norwich Medical School, UEA, UK

1601
Worse than a stroke? Long-term outcome and risk factors for late mortality in Gram-negative bacteraemia
Ioannis Baltas, Foundation Year 3 Doctor, Frimley Health NHS Foundation Trust, UK

1604
Genomic and Bioassay-guided Approaches for Discovery of Novel Antibiotics from Marine Bacteria
Matthias Agbo, University of Nigeria, Nsukka

PROGRAMME: 2 FEBRUARY

1607

Epigenetic Mode of Bacterial Drug Resistance

Guru Prasad Manderwad, Kamineni Academy of Medical Sciences and Research Centre

1610

Ecm16 protein confers resistance against the DNA intercalator antibiotic echinomycin

Priyanka Gade, University of Texas at El Paso

1613

Genomic analysis of Colistin resistance in Carbapenem-Resistant Enterobacterales and XDR Klebsiella pneumoniae

Raunak Bir, Senior Resident Doctor, All India Institute of Medical Sciences, New Delhi, India

1616

Formulation, Characterization and Evaluation of Wog19-Loaded and Wog19 +Chloroquine-Loaded Solid Lipid Nanoparticles for the Treatment of Malaria Caused by Sensitive and Resistant Strains of P. berghei

Samuel Uzondu, Lecturer / Researcher, NanoMalaria Research Unit, Department of Pharmaceutics, Faculty of Pharmaceutical Sciences, University of Nigeria, Nsukka

1619

The Three Ages of Antibiotics

Emily Mayhew, Historian in residence, Dept of Bioengineering, Imperial College London

1622

Q&A

1630

Day one closing remarks

Professor William Hope, Professor of Therapeutics and Infectious Diseases, University of Liverpool

PROGRAMME: 3 FEBRUARY

1300 Introductory remarks
Professor William Hope, Professor of Therapeutics and Infectious Diseases, University of Liverpool

SESSION FIVE: LEARNING LESSONS: CLINICAL TRIALS
Chair: Professor Mike Sharland, Consultant in paediatric infectious diseases, St George's University Hospitals NHS Foundation Trust

1305
Lessons for Clinical Research from COVID-19
Professor Andy Ustianowski, Principal Clinical Research Lead, North Manchester General Hospital

1320
Innovative design of clinical trials
Professor Sarah Walker, University College London

1335
Developing a TB drug in academia: The BTZ043 from lead candidate to pivotal clinical trials – lesson learned from a complex endeavour
Professor Dr Michael Hoelscher, Director Department of Infectious Diseases & Tropical Medicine, Medical Center of the University of Munich, LMU

1350
Q&A
All speakers

1400
BREAK

SESSION SIX: NON-TRADITIONAL APPROACHES AND CHALLENGES
Chair: Dr Ursula Theuretzbacher, Founder, Center for Anti-Infective Agents (CEFAIA)

1410
The non-traditional treatment pipeline
Dr Ursula Theuretzbacher, Founder, Center for Anti-Infective Agents (CEFAIA)

1425
Elastase inhibitor
Dr Martin Everett, Chief Scientific Officer, Antabio

1440
Therapeutic Development of Bacteriophages
Professor Martha Clokie, Professor of Microbiology, University of Leicester

1455
Q&A
All speakers

1505
BREAK

SESSION SEVEN: KEYNOTE PRESENTATION
Chair: Dr Jean-Pierre Paccaud, Director, Business Development and Corporate Strategy, Global Antibiotic R&D Partnership (GARDP)

1515
Facilitators and barriers to securing access to new and old antibiotics
Dr Christine Ardal, Senior Advisor, Institute of Public Health, Norway

1535
Q&A

1545
BREAK

SESSION EIGHT: PANEL DISCUSSION
Chair: Professor Laura JV Piddock, Director of Scientific Affairs, Global Antibiotic Research & Development Partnership (GARDP)

1555 - 1700 Careers in Drug Development and Antimicrobial Chemotherapy

Dr Olga Genilloud, Scientific Director, Fundación MEDINA

Sumati Nambiar, Director, Division of Anti-Infective (DAI), FDA

Prof Dr Rolf Müller, Head of Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS) & Department Microbial Natural Products (MINS), Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS)

Dr Martin Everett, Chief Scientific Officer, Antabio

1700
Closing remarks
Professor Laura JV Piddock, Director of Scientific Affairs, Global Antibiotic Research & Development Partnership (GARDP)

SPEAKERS

Dr Christine Ardal

Senior Advisor, Institute of Public Health, Norway

Christine Årdal MBA PhD has worked for over 20 years on access to medicines through different sectors, including research institutes, governmental development assistance, pharmacy, national health service and insurance. At the Norwegian Institute of Public Health, her research focuses on the policy aspects of antimicrobial access and innovation. Årdal was a co-lead in the DRIVE-AB research project which aimed to transform the way policymakers stimulate innovation, the sustainable use, and the equitable availability of novel antibiotics to meet unmet public health needs. She is currently the co-lead of the research and innovation work package for the European Union's Joint Action on Antimicrobial Resistance and Healthcare-Associated Infections (EU-JAMRAI), which aims to detail European strategies to implement mechanisms to increase antibiotic and alternative therapeutic innovation. Previously she was a member of the World Health Organization expert review panel for the overall programme review of the Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property. She led the Norwegian Agency for Development Cooperation's (Norad) efforts within the UN Commission on Life-Saving Commodities for Women and Children.

Dr Benjamin Blasco

Discovery Senior Project Manager, GARDP

Benjamin holds a master's degree in Molecular and Biological Chemistry and a PhD in Molecular Life Sciences from the Swiss Federal Institute of Technology in Lausanne (EPFL).

Benjamin has over 10 years' experience working on two of the "big three" infectious diseases (Tuberculosis and Malaria), with a broad expertise in microbiology, molecular pharmacology and drug discovery. Prior to joining GARDP, Benjamin worked as a Discovery Research Scientist at Medicines for Malaria Venture (MMV), managing several projects spanning from biology test platforms to drug discovery programs. In his current role at GARDP, Benjamin manages and leads several drug discovery projects aiming to generate a portfolio of novel antibiotics with activity against drug-resistant WHO priority Gram-negative bacteria.

Professor Martha Clokie

Professor of Microbiology, University of Leicester

Martha Clokie is Professor of Microbiology at the University of Leicester where she leads a group of post-doctoral researchers and PhD students working on different aspects of therapeutic development of phages that target human and animal pathogens. Her work encompasses all aspects of phage therapy development – from unravelling fundamental biology to product development, and commercialisation. She is currently developing phages for major gut pathogens including Clostridial and Salmonella species, for respiratory pathogens and for antibiotic resistant bacteria that cause UTIs. She is also developing a phage based diagnostic test for Borrelia. Three patents have been filed from her work.

Image © University of Leicester

Dr Christopher Darlow

MRC Clinical Research Fellow, University of Liverpool

Christopher qualified in Medicine from the University of Cambridge in 2011, and has since specialised in Infectious Diseases and Microbiology, training in Oxford and Manchester, including an NIHR Academic Clinical Fellowship with the Oxford Vaccine Group working on typhoid human challenge infection models. He is currently nearing completion of a PhD as a recipient of an MRC Clinical Pharmacology Fellowship award at the University of Liverpool. His current research interests are the pharmacodynamics of combination antimicrobials and the repurposing of old off-patent antibiotics for use in neonatal infections, particularly in low- and middle-income countries where antimicrobial resistance Is prevalent.

Dame Sally Davis

UK Government Special Envoy on Antimicrobial Resistance, UK Department of Health and Social Care

Dame Sally Davies was appointed as the UK Government's Special Envoy on AMR in 2019. She is also the 40th Master of Trinity College, Cambridge University.

Dame Sally was the Chief Medical Officer for England and Senior Medical Advisor to the UK Government from 2011-2019. She has become a leading figure in global health including serving as a member of the World Health Organisation (WH O) Executive Board 2014-2016 and as co-convener of the United Nations Inter-Agency Co-ordination Group (IACG) on Antimicrobial Resistance (AMR) reporting in 2019.

In the 2020 New Year Honours, Dame Sally became the second woman (and the first outside the Royal family) to be appointed Dame Grand Cross of the Order of the Bath (GCB) for services to public health and research, having received her DBE in 2009.

Dr Martin Everett

Chief Scientific Officer, Antabio

I obtained a PhD in Microbiology from the University of Bristol studying the molecular mechanisms of β-lactamase induction and pursued post-doctoral studies within the Antibiotic Research Group, University of Birmingham, on the mechanisms of fluoroquinolone resistance in clinical isolates. In 1996 I joined Glaxo Wellcome integrating anti-tubercular projects from academic collaborators into the internal discovery process. Within GSK, I joined the Molecular Screening department, running a high-throughput screening group and leading several antibacterial and anticancer discovery programs. In 2005 I joined MerLion Pharmaceuticals in Singapore becoming Head of Research, leading the internal research and natural products CRO business, before joining Antabio in late 2012, becoming CSO.

Dr Olga Genilloud

Scientific Director, Fundacion MEDINA

Olga Genilloud, MEDINA Scientific Director, has a PhD in Chemistry (U. Complutense, Madrid) and more than 30 years experience in natural products drug discovery in the academic and clinical environments (Hospital Ramón y Cajal, Madrid; Harvard Medical School, Boston) as well as in the pharma sector with former positions at Merck Research Labs (Basic Research Center, MSD, Spain, 1989-2008). Since 2009 she leads Fundación MEDINA, a non-for-profit research organization established from former MSD R&D in Spain. She manages the research programs and international collaborations with academic and industrial partners to identify novel drugs and high value biotechnological products.

Dr Jennifer Herrmann

Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Department Microbial Natural Products

Jennifer studied chemistry at the Technical University Kaiserslautern and received her diploma in 2007. She worked as visiting scholar at Drug Discovery Ltd. in Glasgow before she moved to Saarland University, where she received her PhD in Pharmaceutical Biotechnology. Jennifer continued with post-doctoral research at the Helmholtz Institute for Pharmaceutical Research Saarland (HIPS) and worked as visiting scientist at the Luxembourg Centre for Systems Biomedicine on zebrafish assays for drug screening. She currently holds a position as senior scientist at HIPS. Jennifer's main research interests are the characterisation of newly isolated anti-infective natural products and their further development, including mode-of-action and mode-of-resistance studies with novel antibiotics and their pharmacological characterisation.

Professor Achim Hoerauf

Director, Institute of Medical Microbiology, Immunology and Parasitology, University Hospital Bonn/DZIF

Prof Achim Hörauf is the Director of the Institute of Medical Microbiology, Immunology and Parasitology (IMMIP) at the University Hospital Bonn and Professor of Parasitology at the University of Bonn. He is a member of the German Center for Infection Research (www.dzif.de) and coordinates the Bonn-Cologne site in addition to chairing the German Network against Neglected Tropical Diseases (www.dntds.de). He is a leading expert in neglected tropical diseases, especially filariases, and is active in the development of diagnostic tools and new antimicrobials with scientific collaboration partners in Africa and South America and research collaborations with industry partners (Abbvie, Bayer, Celgene).

Professor Dr Michael Hoelscher

Director Department of Infectious Diseases & Tropical Medicine, Medical Center of the University of Munich, LMU

Michael Hoelscher is heading the department of Infectious Diseases & Tropical Medicine at the Medical Center of the University of Munich since October 2015. Hoelscher is a medical doctor by training with extensive expertise in Tropical Medicine, Infectious Diseases and Microbiology.

Very early in his career, he dedicated most of his professional life to the improvement of health care in developing countries. In 1996 he founded together with the local Health Authorities in Mbeya Region the Mbeya Medical Research Center (MMRP), which has emerged over the last 20 years to one of Africa's leading infectious diseases research programmes.

Hoelscher's major research interests are to develop novel strategies to prevent, diagnose and treat HIV, tuberculosis and emerging infections. His focus is on the translational interface between basic research, clinical trials, epidemiology and public health. He has been involved in over 20 multinational clinical studies and serves on several DSMBs.

Within the BMBF funded German Center for Infection Research (DZIF), he runs the international clinical trials unit (iCTU), he is leader of the DZIF groups for TB.

Building on his experience of coordinating PanACEA, the largest African-European TB clinical trials network, he is developing novel clinical trial designs and concepts that facilitate the development of novel TB regimens. He is the Scientific Leader of the IMI UNITE4TB Project, a clinical research network involving 25 academic institutions as well as GSK, Janssen, Otsuka and BioMerieux that aims to develop novel TB drug regimens, with a budget of 195 Mio Euro.

Professor William Hope

Professor of Therapeutics and Infectious Diseases, University of Liverpool

William Hope (BMBS, FRACP, FRCPA, PhD), is Professor of Therapeutics and Infectious Diseases at the University of Liverpool in the UK. Professor Hope is a Fellow of the Royal Australasian College of Physicians and a Fellow of the Royal College of Pathologists of Australasia. Professor Hope qualified in Medicine in 1991, before undertaking specialist training in infectious diseases and clinical microbiology. He completed his PhD in antimicrobial pharmacology in 2006, while undertaking fellowships at the University of Manchester, UK, and the National Institutes of Health, Bethesda, USA. He was an NIHR Clinician Scientist and this award focused on individualised antimicrobial therapy. Professor Hope leads the newly formed Centre for Antimicrobial Pharmacodynamics, which provides the pharmacodynamic packages for new antibiotics. Areas of special interest and research are antimicrobial pharmacokinetics and pharmacodynamics, antimicrobial drug development and individualisation of antimicrobial therapy. He is a Fellow of the American Academy of Microbiology and European Society of Clinical Microbiology and Infectious Diseases.

Professor Alasdair MacGowan

Consultant in Infection at North Bristol NHS Trust & Professor of Antimicrobial Therapeutics at the University of Bristol

Alasdair MacGowan is Consultant in Infection at North Bristol NHS Trust and Professor of Antimicrobial Therapeutics at the University of Bristol. He has led a mixed NHS-academic research group in the area of antimicrobial chemotherapy for over twenty-five years, and provides medical input into the National Antibiotic Assay Reference Laboratory at Southmead Hospital. He has a research interest in antibacterial pharmacokinetics/dynamics, rapid diagnostics, antimicrobial resistance in the community, and patient and public involvement in infection research. He holds several Programme Grants related to antibacterial drug development from the EU's IMI, has a Research for Patient Benefit Grant on antibiotic optimisation to prevent emergence of resistance, and was microbiological lead on a joint MRC (UK) China project studying antimicrobial resistance in rural China. At present, active grants total >£15m. He is a former President of the British Society for Antimicrobial Chemotherapy (BSAC), is a member of the BSAC Standing Committee on Antimicrobial Susceptibility Testing, and is UK representative on European CDC Expert Committee EUCAST. He is a Fellow of the Royal College of Physicians (Edinburgh), Royal College of Pathologists, and was a first title bearer of Fellowship of ESCMID.

Dr Marcus Miethke

Scientist & Project Manager Helmholtz Institute for Pharmaceutical Research Saarland (HIPS)

Marcus Miethke is a scientific coordinator of drug discovery and development projects in the German Center for Infection Research (DZIF) and in the department Microbial Natural Products (MINS) at Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), which is part of the Helmholtz Centre for Infection Research (HZI). He is also network manager of the recently established JPIAMR-VRI initiative "International Research Alliance for Antibiotic Discovery and Development" (IRAADD). Marcus has an academic background in Biochemistry as well as Molecular and Medical Microbiology.

Professor Dr Rolf Müller

Head of Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS) & Department Microbial Natural Products (MINS), Helmholtz-Institute for Pharmaceutical Research Saarland (HIPS)

Rolf Müller is Full Professor of Pharmaceutical Biotechnology at Saarland University, Saarbrücken, Germany. Since 2009 he is Head of the department Microbial Natural Products (MINS) at the Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), which he leads as a Managing Director. Since 2017, Rolf is coordinator of the thematic translational unit “Novel Antibiotics” at the German Center for Infection Research (DZIF). He is involved in several national and international research networks and collaborations with the aim to identify novel bioactive natural products, to analyze their biosynthesis and structures and to develop their biological and chemical properties towards novel (pre)clinical candidates.

Dr Sumati Nambiar

Director, Division of Anti-Infectives, US Food and Drug Administration

Dr Nambiar is the Director of the Division of Anti-Infectives in the Office of Infectious Diseases, since July 2013 and has been in the Division since 2002. In her current role, she provides regulatory oversight for anti-infective products, including antibacterial, antifungal, and antiparasitic drugs. Dr Nambiar is board-certified in pediatrics and pediatric infectious diseases.

Dr Jean-Pierre Paccaud

Director, Business Development and Corporate Strategy, Global Antibiotic R&D Partnership (GARDP)

Dr. Jean-Pierre Paccaud is heading the business development and corporate strategy activities of GARDP since January 2017, and contributed to its inception and setup. Previously, he was heading the business development and legal team of the Drugs for Neglected Diseases initiative (DNDi) since 2007. Prior to joining DNDi, Jean-Pierre founded in 2002 Athelas SA, a company active in the field of anti-bacterial drug discovery, which he lead until its merger with Merlion Pharmaceuticals in 2006. Previously, he spent more than 18 years in academia, working in immunology, diabetes, and cell biology, and was tenured at the University of Geneva School of Medicine. Trained as a molecular and cellular biologist, he earned his PhD at the University of Geneva School of Medicine, and completed his post- doctoral studies at the University of California at Berkeley in the laboratory of Prof. Randy Schekman.

Professor Laura JV Piddock

Director of Scientific Affairs Global Antibiotic Research & Development Partnership (GARDP)

In January 2018, Laura Piddock joined the Global Antibiotic Research and Development Partnership (GARDP) on a secondment basis. As GARDP's Scientific Director, Laura leads the Discovery and Exploratory Research programme, as well as External Scientific Affairs, including the REVIVE programme. Laura is also Professor of Microbiology at the University of Birmingham, United Kingdom where she leads a research team.

Since she started her PhD in 1982, she has been at the forefront of antimicrobial research. Laura began her career in a clinical environment and has successfully integrated this background with academic research. She has published over 190 original articles and 20 non-research policy original articles and reviews in international peer reviewed journals, 50 invited review articles, 21 research letters, 157 conference proceedings, 6 chapters in academic books and co-authored 9 reports to the UK government or WHO. She has given over 200 lectures at international conferences. She has an H-index of 86.

Her current university research focuses on understanding mechanisms of antibiotic resistance as a basis for drug discovery and multidrug efflux (pumping out of the bacterial cell) and regulation (switching on and off) of bacterial multidrug efflux pumps.

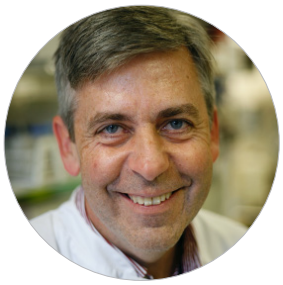
Laura is an enthusiastic communicator about antibiotic resistance and the lack of new antibacterial treatments. She has given talks to various groups at local, national and international level. Laura frequently contributes to both the local, national and international media (print, radio, television and digital) and has been interviewed, advised on, and appeared in, several documentaries for numerous global networks including BBC (One, Two, Four, Radio 2, Radio 4, Radio 5 Live), Al Jazeera, CNN, Channel 4 and Sky News.

Until September 2017, Laura was the British Society for Antimicrobial Chemotherapy Chair in Public Engagement and in this role was the Director of Antibiotic Action and led the secretariat of the UK All Party Parliamentary Group on Antibiotics from 2012 – 2017.

Dr Katharina Rox

Department of Chemical Biology, Helmholtz Centre for Infection Research, Head of PK/PD Unit – German Center for Infection Research, Braunschweig, Germany

Katharina graduated from University of Münster in 2010. She completed her practical training inter alia at Bayer Healthcare, Berlin, and became a licensed pharmacist in 2012. In 2015, she obtained her PhD from Saarland University (Saarbrücken, Germany) which she completed in the field of novel anti-infectives in cooperation with the Helmholtz Centre for Infection Research (HZI, Braunschweig, Germany) and the University of Queensland (Brisbane, Australia). Afterwards, she established the PK/PD unit within DZIF, based at the HZI. In 2019, she spent a research sabbatical at RIKEN (Yokohama, Japan). Katharina is engaged in the field of preclinical development of novel anti-infectives: she is interested in their in vitro, in vivo and in silico characterization, especially with respect to pharmacokinetics and pharmacodynamics.



Professor Mike Sharland

Consultant in paediatric infectious diseases, St George's University Hospitals NHS Foundation Trust

Professor Mike Sharland is a leading expert in antimicrobial prescribing, resistance and healthcare associated infection in children. He is the lead clinical advisor for the neonatal and paediatric programme of the Global Antibiotic Research and Development Partnership (GARDP) and Vice-Chair and AMR lead of the Penta Foundation, a global Paediatric Infectious Diseases research network.

He previously Chaired the Department of Health's Expert Advisory Committee of Antimicrobial Prescribing, Resistance and Healthcare Associated Infection (APRHAI). He has been an advisor for the WHO for many years. He is member of the Expert Committee on the Selection and Use of Essential Medicines and Chair of the Antibiotic Working Group of the EML/EMLc, assisting with the development of the Access/Watch/Reserve (AWaRE) grouping of antibiotics and WHO global targets on use.

Prof Sharland's principal research interest is optimising the use of antimicrobials in children. At St George's University London he leads a major program of research including global cohort studies and clinical trials to improve the evidence base for antimicrobial prescribing.

Dr Ursula Theuretzbacher

Center for Anti-Infective Agents, Vienna

Ursula Theuretzbacher is an expert for antibacterial drug research, discovery/development strategies and policies based on clinical and public health needs. Her broad area of expertise includes public and philanthropic funding strategies for antibacterial drug R&D and initiatives to recover the global pipeline, evaluation and comparative assessment of antibacterial drugs, and optimization of antibacterial therapy concepts. She was member of the coordinating group of the WHO project Priority Pathogen List for R&D and leading scientist for the Clinical and Preclinical Pipeline analysis, and development of Target Product Profiles at WHO.

Professor Andrew Ustianowski

Consultant Physician in Infectious Diseases and Tropical Medicine, Regional Infection Unit, North Manchester General Hospital

Professor Andrew Ustianowski is a Consultant Physician in Infectious Diseases and Tropical Medicine at the Regional Infection Unit, North Manchester General Hospital, UK; the Deputy Clinical Director in Greater Manchester Clinical Research Network; and Joint National Specialty Lead for Infection for the UK National Institute of Health Research.

Currently he is the national clinical lead for the UK NIHR COVID Vaccine Research Programme, is UK chief investigator on 7 COVID studies and has been an investigator on multiple other SARS-CoV2 trials. He is a member of the national NIHR Urgent Public Health Committee.

Dr Ustianowski graduated from Guy's Hospital, London, UK and subsequently trained in Infectious Diseases, Tropical Medicine, HIV and General Medicine in the London region.

Professor Sarah Walker

Professor of Medical Statistics and Epidemiology, MRC Clinical Trials Unit at UCL, UCL, London

At the Medical Research Council Clinical Trials Unit at University College London (MRC CTU at UCL), Sarah has responsibility for the statistical design, management and analysis of a portfolio of randomised controlled trials and other interventional and non-interventional studies in the field of infectious diseases, particularly HIV, Hepatitis C, the acutely sick child in Africa and bacterial infections, including as Trial Statistician for 15 randomised trials in high-, middle- and low-income countries over the last 10 years. She has a track record in applying efficient but complex and challenging designs, including factorial and multi-arm multi-stage, to address multiple questions within each trial.