The Gamechangers: RADAAR Policy Webinars

Speakers & Moderators

❶ Policy Webinar – 1 (Inaugural) / September 16, 5:00-6:00pm KST

Critical Reflections: The Global AMR Response

Inaugural Speaker: Lord Jim O'Neill of Gatley (Member of House of Lords of the United Kingdom)

Jim O'Neill, a former Chief Economist at Goldman Sachs, and UK treasury minister, is the former Chair and current Senior Advisor of Chatham House and a member of the Pan-European Commission on Health and Sustainable Development. Lord O'Neill led an independent review into antimicrobial resistance (AMR) for UK Prime Minister David Cameron from late-2014 to September 2016 and published the '*Review on Antimicrobial Resistance: Tackling Drug-Resistant Infections Globally. Final Report and Recommendations*', on the findings. He is the co-author of the book '*Superbugs: An Arms Race Against Bacteria*'. Jim is an honorary fellow of the Faculty of Public Health and a fellow of the Academy of Social Sciences.

Discussant/Moderator: Dr. Catrin Moore (Global Research on Antimicrobial Resistance [GRAM] Project)

Dr. Moore is Research Group Leader at the Oxford Global Burden of Disease (GBD), supervising a multidisciplinary team at the Big Data Institute (BDI) – working in partnership with the Institute for Health Metrics and Evaluation (IHME) – to produce data, health metrics and geospatial maps relating to the global disease burden of antimicrobial resistance (AMR). The flagship GRAM project applies methodologies utilized by IHME in its ongoing GBD study to build an evidence base for AMR, with an initial focus on select antibiotic-resistant microorganisms. Catrin has been Principal Investigator on numerous microbiology studies and primary author on over 10 peer-reviewed publications, including '*Changes in Antibiotic Resistance in Animals*'.

❷ Policy Webinar -2 / September 23, 5:00-6:30pm KST

AMR Surveillance: Past, Present, and the Future

Speaker – 1: Dr. John Stelling (Brigham and Women's Hospital [BWH], Harvard University)

Dr. John Stelling is Co-Director of the WHO Collaborating Centre for Surveillance of Antimicrobial Resistance based at the Brigham and Women's Hospital in Boston. The focus of his work has been to support public health infrastructure for laboratory services, including three years as a Medical Officer with the WHO Antimicrobial Resistance Monitoring Unit, and advancing data management tools for laboratory-based surveillance of infectious diseases and antimicrobial resistance. Since 1989, he has developed, disseminated, and supported the free WHONET software, currently used to support surveillance activities in over 120 countries in over 2,300 hospitals, public health, food, and veterinary laboratories.

Speaker – 2: Dr. David Aanensen (Big Data Institute [BDI], Oxford University)

Dr. Aanensen is Director of the Centre for Genomic Pathogen Surveillance and a Professor and Senior Group Leader in Genomic Surveillance, and Group Leader at Wellcome Sanger Institute. He is also Director of the National Institute for Health Research (NIHR) funded Global Health Research Unit on Genomic Surveillance of Antimicrobial Resistance, working with partners in leading AMR strategies in the Philippines, Colombia, Nigeria and India, to implement genomic surveillance and linking to routine phenotypic and epidemiological data for priority pathogens. His work focuses on data flow and use of genome sequencing for surveillance of microbial pathogens.

Discussant/Moderator: Dr. Pascale Ondoa (African Society of Laboratory Medicine [ASLM])

Dr. Ondoa is the Director of Science and New Initiatives at the African Society of Laboratory Medicine since 2017. She is a medical doctor and virologist with over 20 years of experience in the field of HIV and health project implementation. She has expertise in virology and immunology, basic and applied research in diagnostic development, implementation, and laboratory system strengthening in resource-limited settings. She has extensive experience in developing tools for laboratory system assessment, laboratory policy analysis and development of laboratory strategic plans. Dr. Ondoa is affiliated at the Institute for Global Health and Development (AIGHD), University of Amsterdam as assistant professor.

❸ Policy Webinar – 3 / October 8, 5:00-6:30 pm KST

AMR: Linking the 'technical' and the 'social'

Speaker – 1: Professor Olivier Rubin (Dept of Social Sciences and Business [DSSB], Roskilde University)

Professor Rubin is a professor of Global Studies at Roskilde University in Denmark. He is a disaster researcher from a social science perspective with an expertise in the political dynamics surrounding transboundary and creeping disasters as diverse as famine, pandemics, climate change and antimicrobial resistance. He is the author of '*The State of Social Research on Antimicrobial Resistance*', and '*Antimicrobial Resistance as a Global Health Crisis*'. He is also currently co-editing a book entitled '*Steering against Superbugs – The Global Governance of Antimicrobial Resistance*'.

Speaker – 2: Professor Clare Chandler (London School of Hygiene and Tropical Medicine [LSHTM])

Professor Chandler is a medical anthropologist and the Director of the LSHTM Antimicrobial Resistance Centre. She is Principal Investigator for the Economic and Social Research Council (ESRC) funded Anti-Microbials in Society (AMIS) Programme, bringing fresh perspectives to social studies of antimicrobial resistance. Her research interests lie in the application of anthropological methods and theory to policies and practices relating to medicine use, diagnostic testing, and health care improvement interventions. She is the author of '*Current Accounts of Antimicrobial Resistance: Stabilisation, Individualisation and Antibiotics as Infrastructure*' and '*Addressing Antimicrobial Resistance Through Social Theory: An Anthropologically Oriented Report*'.

Discussant/Moderator: Dr. Will Parks (UNICEF Bhutan)

Dr. Will Parks is the Representative for UNICEF in the Kingdom of Bhutan, leading the agency's efforts to innovate social services for children and adolescents, and spearheading the UN Country Team's support for the government's response to and recovery from COVID-19. Prior to Bhutan, he was the Representative for UNICEF in Iran, UNICEF's Chief of Field Operations in Iraq, and UNICEF's Deputy Representative in Nepal. Will previously led a series of new economic policy, planning and evidence-based advocacy initiatives as the Chief of Policy, Advocacy, Planning and Evaluation in UNICEF Pacific's multi-country office. He specializes in economic policy, public health, communication, and evaluation. Will holds a PhD in Public Health and Medical Anthropology from the University of Queensland.

➍ Policy Webinar – 4 / October 15, 5:00-6:30 pm KST

The Public and the Private Sectors: Points of intersection, points of departure

Speaker – 1: Bruce Altevogt (Pfizer)

Bruce Altevogt is Vice President and Head External Medical Engagement within Pfizer Inc.'s Hospital Business Unit. The External Medical Team supports the industry-leading antimicrobial resistance (AMR) surveillance programme, ATLAS. Prior to this role, Bruce was a Senior Director of Science Policy and Science Advocacy and was lead for AMR policy. He serves as a member of the AMR Alliance Board, an organization that measures and drives the life-sciences industry progress to curb AMR.

Speaker – 2: Dr. Catrin Moore (Global Research on Antimicrobial Resistance [GRAM] Project)

Dr. Moore is Research Group Leader at the Oxford Global Burden of Disease (GBD), supervising a multidisciplinary team at the Big Data Institute (BDI) – working in partnership with the Institute for Health Metrics and Evaluation (IHME) – to produce data, health metrics and geospatial maps relating to the global disease burden of antimicrobial resistance (AMR). The flagship GRAM project applies methodologies utilized by IHME in its ongoing GBD study to build an evidence base for AMR, with an initial focus on select antibiotic-resistant microorganisms. Catrin has been Principal Investigator on numerous microbiology studies and primary author on over 10 peer-reviewed publications, including '*Changes in Antibiotic Resistance in Animals*'.

Discussant/Moderator: Dr. Gemma Buckland Merrett (Wellcome Trust)

Dr. Gemma Buckland Merrett is the Research Lead for Drug-Resistant Infections at Wellcome. In her role, she is shaping and delivering Wellcome's antimicrobial resistance strategy and bridging the gap between science and policy. Gemma joined Wellcome in 2019 from Public Health England where she was the lead epidemiologist for travel-associated infections. Gemma has over 15 years of experience in multi-disciplinary research roles, leading projects spanning public health, epidemiology and infectious diseases. She has experience working across different sectors and in different countries to advance research tackling infectious disease.

❺ Policy Webinar – 5 / October 22, 5:00-6:30 pm KST

One Health and AMR Surveillance: Approaches and Options

Speaker – 1: Dr. Frank Møller Aarestrup (Technical University of Denmark [DTU])

Dr. Frank Møller Aarestrup is a Professor at the Technical University of Denmark (DTU) and Head of Division at the National Food Institute. His research primarily targets the association between the use of antimicrobial agents to farm animals and the emergence and spread of antimicrobial resistance (AMR) in humans. This research has focused on how next-generation sequencing can contribute to global surveillance of AMR and other pathogens. This has led to the establishment of freely available online bioinformatics tools such as 'Resfinder' and several studies using metagenomics showing the potential for surveillance in farm animals, humans and sewage. He is the first author of papers such as '*Association Between the Consumption of Antimicrobial Agents in Animal Husbandry and the Occurrence of Resistant Bacteria among Food Animals*' and '*Veterinary Drug Usage and Antimicrobial Resistance in Bacteria of Animal Origin*'.

Speaker – 2: Dr. Thomas van Boeckel (ETH Zurich)

Dr. Thomas van Boeckel is a spatial epidemiologist at ETH Zurich and SNF Assistant Professor. Thomas develops maps of antimicrobial resistance (AMR) and explores economic incentives to reduce antimicrobial use (AMU) in animals. The work aims to inform policy-makers, on a global level, to address the rise of drug-resistant pathogens in animals. His research areas include AMR, disease mapping, and livestock production systems. Thomas is pioneering the development of a platform to centralize epidemiological data collection on AMR (resistancebank.org). He is the author of '*Global Trends in Antimicrobial Resistance in Animals in Low- and Middle-Income countries*' (Science) and '*Global Trends in Antimicrobial Use in Food Animals*' (PNAS).

Discussant/Moderator: Professor Sabiha Essack (University of KwaZulu-Natal)

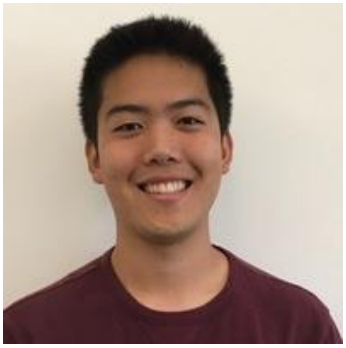
Sabiha Essack is the South African Research Chair in Antibiotic Resistance and One Health and Professor in Pharmaceutical Sciences at the University of KwaZulu-Natal. She is Vice-Chair of the WHO Strategic and Technical Advisory Group for Antimicrobial Resistance and senior implementation research advisor to the International Centre for Antimicrobial Resistant Solutions (ICARS) in Denmark. Sabiha's current research interests include evidence-informed strategies for the prevention and containment of antibiotic resistance, molecular epidemiology, health policy and health systems strengthening in the context of AMR and antimicrobial stewardship.

❻ Policy Webinar – 6 / October 28, 9:00-10:30 pm KST

Disruptive Methodologies: Artificial Intelligence, Machine Learning, and AMR

Speaker – 1: Dr. Jonathan Stokes (MacMaster University)

Dr. Jonathan Stokes is an assistant professor at McMaster University in the Department of Biochemistry and Biomedical Sciences. The Stokes lab leverages experimental and computational approaches to discover the next generation of life-saving antibiotics with novel structures and functions that expand the capabilities of these medicines beyond the current state. Jonathan co-founded a non-profit organization, Phare Bio, which aims to de-risk promising antibiotic candidates and position these molecules for more rapid advancement through the clinical trial process. He is also the lead author of '*A Deep Learning Approach to Antibiotics Discovery*'.



Speaker -2: Dr. Brian Hie (Stanford University)

Dr. Brian Hie is a Stanford Science Fellow in the Stanford University School of Medicine where he focuses on developing algorithms and machine learning methods with a focus on biological application. His research interests lie in using technology to understand interactions between pathogens and their host organisms. As a doctoral student in electrical engineering and computer science at MIT, he developed novel applications of machine learning to biology and achieved important insights into viral mutation. He is the first author of papers appearing in *Science and Nature Biotechnology*. He has worked as a software engineer for Google X, Salesforce, and Illumina and holds three patents.

Discussant/Moderator: Dr. John Stelling (Brigham and Women's Hospital [BWH], Harvard University)

Dr. John Stelling is Co-Director of the WHO Collaborating Centre for Surveillance of Antimicrobial Resistance based at the Brigham and Women's Hospital in Boston. The focus of his work has been to support public health infrastructure for laboratory services, including three years as a Medical Officer with the WHO Antimicrobial Resistance Monitoring Unit, and advancing data management tools for laboratory-based surveillance of infectious diseases and antimicrobial resistance. Since 1989, he has developed, disseminated, and supported the free WHONET software, currently used to support surveillance activities in over 120 countries in over 2,300 hospitals, public health, food, and veterinary laboratories.