

Scientific Advisory Group members

Chair

[FARRAR, Jeremy](#)

Director, Wellcome Trust

Members

- [ABIMIKU, Alash'le](#)
Co-founder and the Executive Director of the International Research Centre of Excellence (IRCE) at the Institute of Human Virology Nigeria (IHVN), and a Professor at the Institute of Human Virology, University of Maryland School of Medicine, Baltimore
- [ANOKO, Julienne N.](#)
Social-anthropologist (PhD) from the Sorbonne University in France
- [BALASEGARAM, Manica](#)
Medical doctor
- [BHAN, Maharaj Krishan](#)
National Science Professor at the Indian Institute of Technology, Delhi, Government of India, President of JIPMER and an Advisor to the World Health Organization.
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Deputy Director of the National Institute for Communicable Diseases, Head of the Public Health Surveillance and Response Division
- [BRIGHT, Rick A.](#)
Director, Biomedical Advanced Research and Development Authority (BARDA)
- [CAVALERI, Marco](#)
Head of Office, Anti-infectives and Vaccines in the Human Medicines Evaluation Division
- [DA SILVA, Jarbas Barbosa](#)
President-Director, Agencia Nacional de Vigilancia Sanitaria, Brazil
- [DARKO, Mimi](#)
Ag. Deputy Chief Executive, Safety Monitoring and Clinical Trials Division
- [GÜNTHER, Stephan](#)
Head of Department of Virology, Bernhard-Nocht-Institute for Tropical Medicine in Hamburg, Germany
- [HALLORAN, Elizabeth](#)
Director of the NIGMS/NIH-funded Center for Inference and Dynamics of Infectious Diseases
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Director, Vaccine Development and Surveillance at The Bill and Melinda Gates Foundation
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Vice-President of the Board of the Swiss Federal Institutes of Technology (ETH Rat)
- [JEE, Young-Mee](#)
Director, Center for Immunology and Pathology, National Institute of Health, Korea Centers for Disease Control and Prevention
- [KERSTIËNS, Barbara](#)
Head, Unit of Infectious Diseases and Public Health, European Commission, Belgium
- [KOOPMANS, Marion](#)
Head of the Viroscience department of the Erasmus MC Rotterdam
- [LEWIS, Chris](#)
Senior Health Advisor, Department for International Development, United Kingdom
- [RØTTINGEN, John-Arne](#)
Chief Executive of the Research Council of Norway and Adjunct Professor at the Department of Global Health and Population, Harvard T.H. Chan School of Public Health
- [TEERAWATTANANON, Yot](#)
Founding Leader of Health Intervention and Technology Assessment Program & Senior Researcher Scholar of Thailand's Research Fund
- [TOURE, Aissatou](#)
Head of the Immunology Unit and Senior Researcher at the Pasteur Institute in Dakar
- [WHITWORTH, Jimmy](#)
Professor of International Public Health at the London School of Hygiene & Tropical Medicine

Observer

- [MESSORI, Stefano](#)

Chargé de mission at the World Organisation for Animal Health (OIE), Paris; Scientific Secretary for the STAR-IDAZ International Research Consortium on animal health

Hatchett, Richard

CEO of the Coalition of Epidemic Preparedness Innovations (CEPI)

Jeremy Farrar

Director of the Wellcome Trust, a global charitable foundation dedicated to improving health by supporting bright minds in science, the humanities and social sciences, and public engagement

Biography

Jeremy is Director of the Wellcome Trust, a global charitable foundation dedicated to improving health by supporting bright minds in science, the humanities and social sciences, and public engagement. Before joining the Trust he was Director of the Oxford University Clinical Research Unit in Vietnam, where his research interests were infectious diseases, tropical health and emerging infections.

He has contributed to over 500 scientific publications and has served on several World Health Organization and other international advisory committees. Jeremy was appointed OBE in 2005 for services to tropical medicine, he has been awarded the Memorial Medal and the Ho Chi Minh City Medal by the Government of Vietnam and numerous other international awards. He is a Fellow of the Royal Society and a Fellow of the Academy of Medical Sciences.

Alash'le Abimiku

Co-founder and the Executive Director of the International Research Centre of Excellence (IRCE) at the Institute of Human Virology Nigeria (IHVN), and a Professor at the Institute of Human Virology, University of Maryland School of Medicine, Baltimore

Biography

Professor Alash'le Abimiku, is a co-founder and the Executive Director of the International Research Centre of Excellence (IRCE) at the Institute of Human Virology Nigeria (IHVN), and a Professor at the Institute of Human Virology, University of Maryland School of Medicine, Baltimore; She has over 2 decades of establishing laboratory infrastructure and science in Nigeria with long-term collaborations with the USA. Prof. Abimiku's research focuses on the role of HIV subtypes in disease pathogenesis using mother to child model; and effects of co-infections such as TB on HIV pathogenesis as a successful and funded independent researcher. Prof. Abimiku has trained a cadre of Nigerian scientists and is internationally recognized for her leadership in HIV research, and in promoting laboratory diagnostics and medicine in Africa. She played a significant role in the past as a member of the WHO HIV vaccine advisory committee and the African AIDS Vaccine Program. She currently serves as a member of the international scientific advisory group for University of Cape Town, and as Board chair of the African Society of Laboratory Medicine (ASLM).

Julienne N. Anoko

Social-anthropologist (PhD) from the Sorbonne University in France

Biography

Julienne N. Anoko, is a social-anthropologist (PhD) from the Sorbonne University in France. She completed her academic preparation in the area of epidemiology & public health, and gender & health performing masters' degrees. For greater than 16 years she has been supporting several institutions (public administrations, NGOs, international development and United Nations Organizations) in addressing social norms, communication for development and gender issues both during emergency outbreaks and into development programs for better efficiency and accountability.

Between 2005 and 2014, Dr. Anoko supported the World Health Organization and UNICEF during the Ebola and Marburg outbreaks, as well as the H1N1 influenza pandemic in both developed and developing countries in Africa, America and Europe.

In 2015, she joined the United Nations Mission for Ebola Emergency Response (UNMEER) in Guinea to coordinate, support and leverage the Social Mobilization and Community Engagement pillar in order to implement interventions compatible with sociocultural contexts to gain community trust and participation into the overall response.

Between 2015 and 2016, she was appointed as in-house social-anthropologist of UNICEF in the Guinea country Office to support the mainstreaming of social norms into both the Ebola emergency response and development programs.

She is actually supporting UNICEF West and Central Africa Regional Office of in strengthening social norms programming into regional priorities (2016-2021)

norms programming into regional priorities (2016-2021) Dr. Anoko has published books and papers, and contributed in developing several guidelines for United Nations agencies dealing with her areas of expertise. Dr. Anoko had been featured in articles from National Public Radio (USA), National Geographic, The Washington Post, WHO, and others.

She is recipient of the "Research and Innovation 2015 Award" for her engagement in the field during the West African Ebola epidemic, from the French Red Cross Humanitarian Fund.

Manica Balasegaram

Medical doctor who trained at the University of Nottingham, United Kingdom

Biography

Dr Balasegaram is a medical doctor who trained at the University of Nottingham, United Kingdom. He received further post-graduate training in internal and emergency medicine in the UK and Australia. He joined MSF in 2001, working as a doctor in the field in several countries in Sub-Saharan Africa and Southern Asia.

Dr Balasegaram became Head of the Manson Unit in 2005. He then joined MSF partner organisation Drugs for Neglected Diseases initiative (DNDi), finishing as DNDi's Head of Leishmaniasis Clinical Development Team before joining the Access Campaign.

Dr Balasegaram has worked extensively on issues around access to medicines, with a particular focus on tropical and neglected diseases; to this end he has considerable training in both Public Health and Tropical Medicine from the London School of Hygiene and Tropical Medicine, with significant work experience in both areas. He also has substantial experience in clinical trials and drug development working as a site investigator, principal investigator and project manager.

Maharaj Krishan Bhan

**National Science Professor at the Indian Institute of Technology, Delhi,
Government of India, President of JIPMER and an Advisor to the World Health
Organization**

Biography

Dr. Bhan is currently a National Science Professor at the Indian Institute of Technology, Delhi, Government of India, President of JIPMER and an Advisor to the World Health Organization. He is a Former Secretary to the Government of India, Department of Biotechnology, Ministry of Science & Technology.

He is MBBS, MD Paediatrics, DSc. (Honorary), Fellow, Indian National Science Academy (FNA), Fellow, Academy of Sciences (FASc) and Fellow, Academy of Medical Sciences (FAMS) and Fellow, Third World Academy of Science (TWAS).

His research contribution with health impact on national and developing country programs include development of a Rotavirus vaccine, Zinc as treatment of diarrhoea, low osmolarity ORS, identification of enteroaggregative E. Coli its association with persistent diarrhoea in children and treatment approaches to this disorder. The Management of Neonatal and Childhood Illness (IMNCI) integrated program developed under his Chairmanship has been introduced in the reproductive child health program of the Government of India. This strategy is playing a key role in reducing child mortality in India.

As Secretary, Department of Biotechnology, Govt. of India about a decade, established many new Institutes, clusters and innovation support agencies to attempt a transformation of the biotechnology sector in the country.

Lucille Blumberg

**Deputy Director of the National Institute for Communicable Diseases, of the
National Health Laboratory Service, and is currently head of the Public Health
Surveillance and Response Division**

Biography

Professor Lucille Blumberg is a Deputy Director of the National Institute for Communicable Diseases, of the National Health Laboratory Service, and is currently head of the Public Health Surveillance and Response Division. She is also medical consultant to the Emerging Pathogens Centre on rabies and viral haemorrhagic fevers. She is a medical graduate of the University of the Witwatersrand and a member of the joint staff, and is an associate professor in the department of medical microbiology at the University of Stellenbosch, Western Cape. She has specialist qualifications in clinical microbiology, travel medicine, and infectious diseases. Her special interests are in tropical diseases, travel medicine, malaria, the viral haemorrhagic fevers, and rabies. She is a member of a number of South African expert groups including the Rabies Advisory Group, Malaria Advisory Group and National Advisory Group on Immunization, as well as the advisory group to the WHO on Mass Gatherings.

Rick A. Bright

**Director, Biomedical Advanced Research and Development Authority (BARDA)
Deputy Assistant Secretary in the Office of the Assistant Secretary for
Preparedness and Response (ASPR), U.S. Department of Health and Human
Services**

Biography

Rick Bright, Ph.D., is director of the Biomedical Advanced Research and Development Authority (BARDA) and acting Deputy Assistant Secretary in the Office of the Assistant Secretary for Preparedness and Response within HHS. BARDA develops and provides medical countermeasures to man-made and natural threats including chemical, biological, radiological, and nuclear threats, pandemic influenza, and emerging infectious diseases. BARDA meets this mission by supporting product innovation, advanced development, acquisition and stockpiling, and building manufacturing infrastructure.

Dr. Bright previously served as Director of the Influenza and Emerging Infectious Diseases Division in the BARDA where he was responsible for preparing the nation for influenza pandemics and coordinating production, acquisition and delivery of medical countermeasures during a pandemic response. In this role, he managed a portfolio of projects for advanced development of vaccines, therapeutics, diagnostics and respirator devices to aid in the response and protection against pandemic and seasonal influenza.

Dr. Bright joined BARDA in 2010 to lead the BARDA Influenza Division International Program, supporting programs to build and enhance global capacity for influenza vaccine production and evaluation in developing countries. Dr. Bright serves as an international subject matter expert on influenza, vaccines and therapeutics development and diagnostic programs. He has also served as an advisor to the World Health Organization and the US Department of Defense.

Dr. Bright began his career in influenza vaccine and therapeutics development at the U.S. Centers for Disease Control and Prevention, Influenza Division. At the CDC, he focused on avian and human viruses from multiple perspectives including immunology and vaccine development, viral pathogenesis and molecular correlates of pathogenicity, as well as antiviral drugs and development novel assays for high throughput surveillance for resistance to antiviral drugs. Dr. Bright was a recipient of the Charles C. Shepard Science Award for Scientific Excellence.

Dr. Bright has also worked in the biotechnology industry where he serves as the Director of Immunology at Altea Therapeutics and Vice President of Research and Development and Global Influenza Programs at Novavax, Inc. In 2008, Dr. Bright joined PATH as the Scientific Director of the Influenza Vaccine Project in the Vaccine Development Global Program and the Director of the Influenza Vaccine Capacity Building Project in Vietnam. In this capacity, he provided technical leadership to accelerate the development of innovative vaccine and adjuvant candidates against influenza to ensure protection and access to vaccines for populations of developing countries.

Dr. Bright received his PhD in Immunology and Molecular Pathogenesis from Emory University (Atlanta, GA) and his BS in Biology (Medical Technology) and Physical Sciences from Auburn University (Montgomery, AL).

Marco Cavaleri

Head of Office, Anti-infectives and Vaccines in the Human Medicines Evaluation Division

Biography

Marco Cavaleri is Head of Office, Anti-infectives and Vaccines in the Human Medicines Evaluation Division, responsible for scientific oversight and coordination of EMA activities for anti-infectives and vaccines.

Marco Cavaleri is a Pharmacologist who spent several years in industry in R&D mainly in the area of anti-infectives covering different positions in preclinical and clinical development.

In 2005 he joined the EMEA as Scientific Administrator in the Scientific Advice and Orphan Drugs Sector, specifically being in charge of anti-infectives and vaccines scientific advice procedures.

Mimi Darko

Chief Executive Officer, Food and Drugs Authority Ghana

Biography

Mrs. Delese Mimi Darko is the CEO of the Food and Drugs Authority (FDA), Ghana. She is a pharmacist with over 24 years' experience in regulation of medicines with respect to clinical trials regulation, marketing authorization and post approval safety monitoring of medicines. She has played key leadership roles in the regulation of clinical trials in Africa, resulting in the FDA Ghana, in 2013, to be designated by the NEPAD/AMRH as a Regional Centre for Regulatory Excellence (RCORE) in Clinical Trials and Drug Registration.

Mrs. Darko serves on several international and local advisory committees including the CIOMS Vaccine Safety Working Group, the African Regulators' Network, and the Technical Coordinating Committee of the African Vaccines Regulatory Forum. She is the Secretary to the two Technical Advisory Committees of the FDA for Safety and Clinical Trials. She has chaired and made presentations on regulation of medicines marketing authorization, clinical trials regulation and pharmacovigilance in various national and international conferences.

Stephan Günther

Head of Department of Virology, Bernhard-Nocht-Institute for Tropical Medicine in Hamburg, Germany

Biography

Dr Günther (MD) is the Head of Department of Virology, the Biosafety level 4 laboratory, and WHO Collaborating Centre for Arboviruses and Hemorrhagic Fever Reference and Research at the Bernhard-Nocht-Institute for Tropical Medicine in Hamburg, Germany, and adjunct professor at the University of Hamburg. He studied medicine and specialised in virology, microbiology, and infection epidemiology. Dr. Günther's research is dedicated to viral hemorrhagic fevers (VHF), including Ebola virus disease, Lassa fever, and Crimean-Congo hemorrhagic fever. The group established experimental systems for studying Lassa virus replication as well as small animal models to study pathogenesis and immunology of VHF. Clinical research programs are focused on pathophysiology of VHF and the development of diagnostic tools. The Department of Virology is running several collaborative projects with West African countries, including Nigeria, Guinea, Sierra Leone, and Ghana on VHF in humans and the animal reservoirs. The department is also in charge for diagnostic service for tropical viruses. Dr Günther is Coordinator of the European Mobile Laboratory (EMLab) consortium. During the Ebola virus disease outbreak, EMLab operated diagnostic units under the WHO Global Outbreak Alert and Response Network and supported operational research projects, including clinical trials.

Elizabeth (Betz) Halloran

Director of the NIGMS/NIH-funded Center for Inference and Dynamics of Infectious Diseases

Biography

M. Elizabeth (Betz) Halloran is Professor of Biostatistics in the Vaccine and infectious Disease Division, Fred Hutchinson Research Center, and in the Department of Biostatistics, University of Washington, in Seattle. She is Director of the NIGMS/NIH-funded Center for Inference and Dynamics of Infectious Diseases (www.cidid.org). She is founder and Director of the NIGMS/NIH-funded

Summer Institute in Statistics and Modeling in Infectious Diseases, which will take place for the 9th time in Seattle in July 2017 (sismid.uw.edu).

She is currently the recipient of a MERIT award from NIAID/NIH for methods for evaluating vaccine effects. Since the 1980s, Professor Halloran has been a leader in defining different effects of vaccines and vaccination strategies in populations and in developing new epidemiologic and statistical methods for their evaluation. Her contribution in defining direct, indirect, total and overall effects of vaccination has become common usage in the field of evaluating not only vaccines but also other interventions in infectious diseases. She studied medicine in West Berlin, Germany. She has a Masters of Public Health in Tropical Public Health (1985) and a Doctor of Science (1989), both from the Harvard School of Public Health.

Penny M. Heaton

Director, Vaccine Development and Surveillance at The Bill and Melinda Gates Foundation

Biography

Dr. Heaton leads the Gates Foundation's vaccine development program supporting vaccine development against several diseases including HIV, TB, malaria, pneumonia, enteric diseases, and polio. She is also responsible for surveillance, supporting the Child Health and Mortality Prevention Surveillance (CHAMPS) program, including a network of sites in Africa and Asia focused on finding the causes of stillbirths and neonatal and child mortality through histopathologic diagnosis. Penny started her career at the US Centers for Disease Control and subsequently spent 15 years in the pharmaceutical industry, most recently as Global Head of Clinical Research at Novartis Vaccines. She is a graduate of the University of Louisville School of Medicine, board certified in Pediatrics and Pediatric Infectious Diseases, the recipient of several awards and author of several publications.

Paul Herrling

Vice-President of the board of the Swiss Federal Institutes of Technology (ETH Rat)

Biography

Prof. Herrling is Vice-President of the board of the Swiss Federal Institutes of Technology (ETH Rat). He was appointed Professor for Drug Discovery Science at the Philosophisch-Naturwissenschaftliche Fakultät at the University of Basel, Switzerland. Furthermore, in 2002, he was appointed Full Adjunct. Prof. Herrling also holds a number of memberships various boards. He is a member of the Board of the Novartis Institute for Functional Genomics, member of the Board of Novartis International Pharmaceuticals, member of the Board of Trustees Foundation for NIH and member of the Board of Trustees at the University of Basel. Furthermore, he serves as member of the Scientific Advisory Committee – Drugs for Neglected Diseases (DNDi), of the Advisory Board of the Department of Chemistry at the University of Basel and of the Scientific Advisory Boards of H3D, Medidata and of the Human Brain Project of the European Union.

Prof. Paul Herrling was global Head of Research of Novartis Pharma AG. Since January 2012, he has been Chairman of the Board of the Novartis Institute for Tropical Diseases and Vice President of the Board of the Federal Institutes of Technology (ETH Board) and Consultant to Novartis AG. From March 2010 until December 2011, he served as Head of Novartis Institutes of Developing World Medical Research, which is part of the Novartis Institutes for Biomedical Research at Novartis Pharma AG. From 2003 until 2010, Prof. Herrling was Head of Corporate Research at Novartis International AG after serving as Head of Research of Novartis Pharma AG and Member of the Novartis Pharma Executive Board from January 1997 until October 2002.

Prior to his career at Novartis, Prof. Herrling held different positions at the Sandoz group of companies from 1977 onwards.

Young-Mee Jee

Director of Center for Immunology and Pathology (CIP) in the National Institute of Health (NIH), Korea Centers for Disease Control and Prevention

Biography

Dr. Youngmee Jee (M.D., Ph.D) is Director of the Center for Immunology and Pathology (CIP) at the National Institute of Health (NIH), Korea Centers for Disease Control and Prevention under the Ministry of Health and Welfare of the Government of the Republic of Korea since November 2014. The CIP is responsible for laboratory-based surveillance, research and training in the areas of infectious diseases. It collaborates with public and private network laboratories in the country as well as with international partners.

Dr. Jee received her M.D. from Seoul National University Medical School, a Diploma in Medical Microbiology from the London School of Hygiene Tropical Medicine, and her Ph.D. from the University of London.

From August 2007 to October 2014, Dr. Jee worked as regional laboratory coordinator in the Expanded Programme on Immunization of the WHO Western Pacific Region. Dr. Jee's work at the WHO involved the coordination of extensive collaborations between public health laboratories and technical assistance to the poliomyelitis, measles/rubella and Japanese encephalitis network laboratories in the WHO Western Pacific Region with a view to ensuring a high quality laboratory performance. She also established the rotavirus and invasive bacterial disease network laboratories in the WHO Western Pacific Region.

Before she joined the WHO Western Pacific Regional Office in 2007, Dr. Jee led the polio/enterovirus, hepatitis virus and gastroenteritis virus team in the National Institute of Health, Korea Center for Disease Control (CDC). The team conducted laboratory diagnosis, the operation of laboratory based-surveillance, and research, development and training.

Dr. Jee was appointed Chairperson of the National Poliomyelitis Certification Committee in the Republic of Korea since October 2016 and served as a member of the WHO-ROK joint mission on MERS outbreak in Korea in June 2015. Currently, she also leads the Task Force for the Forum on Infectious Disease Research and Development, which is a coalition organization between the government, academic societies, universities and industries in the Republic of Korea.

Dr. Jee serves as a member of the hepatitis B expert resource panel and the Strategic Technical Advisory Committee on Hepatitis in the WHO Western Pacific Region and a member of the Board of Trustees of the International Vaccine Institute. She is a member of the WHO Strategic Advisory Group of Experts for Immunization (SAGE) since 2017 and also a member of the SAGE polio working group from October 2016 and has served as a member of the WHO R&D Blueprint Scientific Advisory Group since 2015.

Barbara Kerstiëns

Is the deputy Head of Unit responsible for Fighting Infectious Diseases and Advancing Public Health in the European Commissions' Directorate-General for Research & Innovation

Biography

Barbara Kerstiëns, MD, MPH is the Deputy Head of Unit in the unit responsible for infectious diseases and public health in the Health Directorate of the Directorate-General for Research and Innovation at the European Commission. The unit promotes and supports EU research and innovation activities in

the area of global health with emphasis on HIV/AIDS, malaria and tuberculosis, emerging epidemics, neglected infectious diseases, antimicrobial drug resistance as well as health promotion and health systems and services research. The unit also supports the implementation of the European and Developing Countries Clinical Trials Partnership (EDCTP) and the Global Research Collaboration for Infectious Disease Preparedness (GLOPID-R).

She has a long experience in international public health, working for Médecins Sans Frontières, Johns Hopkins Bloomberg School of Public health and DG Development and Cooperation of the European Commission prior to joining DG Research and Innovation in 2012.

Barbara Kerstiëns received her M.D. from the Katholieke Universiteit Leuven, a Postgraduate Certificate in Tropical Medicine from the Institute of Tropical Medicine in Antwerp and a Master of Public health from Johns Hopkins Bloomberg School of Public Health.

Marion Koopmans

Head of the Viroscience department of the Erasmus MC Rotterdam

Biography

Professor Marion Koopmans, DVM PhD focuses on global population level impact of rapidly spreading zoonotic virus infections, with special emphasis on foodborne transmission. Her research focuses on unravelling the modes of transmission of viruses among animals and between animals and humans, and the use of pathogenic genomic information to unravel these pathways and to signal changes in transmission or disease impact. As initiator of the global Noronet network (www.noronet.nl), she has developed a global network of scientists sharing information on disease outbreaks into a jointly owned database to study norovirus diversity related to human health impact. This work has led to the discovery of a wide range of norovirus genotypes that differ in their ability to spread and cause disease. Her team also was first to describe that norovirus epidemiology is shaped by rapid evolution through viral mutation and recombination, thus circumventing population immunity, and explaining why noroviruses rank among the top causes in the global burden of infectious disease estimates. Her research ranges “from barn to bedside”, trying to understand the contribution of animal noroviruses to the genetic diversity of viruses impacting on humans on the one hand, and on the other hand studying how noroviruses evolve in patients that have difficulty clearing the infection. Her aim is to provide insights that can be translated into concrete public health interventions, and the outputs from her research have been used to develop guidelines for the food industry and for healthcare settings where noroviruses are a cause of frequent outbreaks.

Building from the norovirus work and molecular epidemiological expertise, she has expanded her research into emerging viral diseases that are recognized with increasing frequency. As head of the virology reference laboratory of the national public health laboratory, a position she held from 2001 to 2014, she has been responsible for emerging disease preparedness, and coordination of the national laboratory response to such disease outbreaks, including SARS, pandemic influenza H1N1 2009, avian influenza and MERS. Building from those experiences, she developed an academic emerging disease preparedness research agenda at Erasmus MC as head of the Department of Viroscience. This research agenda combines basic laboratory science and tools with epidemiology to unravel causes, pathogenesis, sources and transmission routes of emerging viral diseases at the human-animal interface, and to translate these into diagnostics, and tools for tracking of infection and early warning. This work amongst others led to the discovery that avian influenza viruses may evolve into lineages with different potential human health impact during the course of a single outbreak, that dromedary camels are the reservoir for MERS-CoV infections of humans, and that camel markets and racing events are crucial in the epidemiology of these viruses and could be targeted by interventions. Professor Koopmans has been active as coordinator of a European foodborne virus network, the global Noronet collaboration, national contact for the European Centres for Disease control, advisor for the World Health Organisation on foodborne diseases and emerging disease outbreaks, has served

as member of the WHO emergency committee on MERS, which advises the Director General on public health emergencies, and the Food and Agricultural organisation committees on MERS and Ebola. She is member of the Scientific Advisory Group of the WHO initiative to develop a new a global strategy and preparedness plan to ensure that targeted R&D can strengthen the emergency response by bringing medical technologies to patients during epidemics (<http://www.who.int/csr/research-and-development/blueprint/en/>). She is director of a WHO collaborating centre for Emerging viral diseases, and head of the designated national reference centre for high threat viral pathogens for the European Commission, a network that aims to provide a common, coordinated and effective response to infectious disease outbreaks at EU level and abroad. (www.emerge.rki.eu). As member of the scientific advisory board of the Centres for Disease control of Guangdong China, she has advised on the building of the laboratory capacity for emerging infectious disease detection in this region, and has ongoing research collaborations trying to unravel emergence and spread of viruses through the animal production chain in this region. During the recent Ebola outbreak, she led the deployment of three mobile laboratories in Sierra Leone and Liberia, in which essential minimal local laboratory capacity was provided, and volunteers were trained to operate these laboratories at the highest standards, contributing to the local emergency response to Ebola. She is member of the standing committee on public health of the National Health Council, that reviews all advise relevant to public health directed to the Ministry of Health from the different advisory committees of the National Health Council; the Council of Animal Health, that has a similar role for advise to the Ministry of Economic affairs on issues related to animal health and welfare; she is chair of the Scientific Advisory Board of GLOPID-R, a global consortium of funding agencies that aims to coordinate rapid mobilisation of funds in the face of epidemics (www.glopid-r.org).

She has obtained funding for the research activities, both academic and in a public health setting, from various sources including European FP6, FP7 and H2020 programs, US CDC, WHO, Wellcome trust, NOW and ZONMW, the latter with funding specifically to develop insights into EID detection through the use of novel technologies that also will be central to this grant application. She is scientific coordinator of COMPARE, a large H2020 funded project (20 MEuro), exploring the potential uses of next generation sequencing techniques for outbreak detection and tracking (www.compare-europe.eu), and co-PI in the FP7 funded PREPARE project (www.prepare-europe.eu) aimed at building a pan-European operational network for rapid and large-scale European clinical research in response to infectious disease outbreaks with epidemic potential. She is director of the WHO collaborating centre for emerging infectious diseases at Erasmus, and Scientific Director "Emerging infectious diseases" of the Netherlands Centre for One Health (www.ncoh.nl). She has received the Infectious disease award of the Dutch Association for Infectious Diseases. She has co-authored >300 papers that have been cited > 20.000 times.

Chris Lewis

Senior Health Adviser with the Health Research Team in DFID

Biography

Chris Lewis is a Senior Health Adviser with the Health Research Team in DFID, working on epidemic, NTD, humanitarian and health systems research. His previous role within the Ebola Response Team was as Team Leader for Strategy, Innovation and Research, involving development of the strategy for the UK's response to Ebola in Sierra Leone. Prior to DFID, Chris worked for NGOs leading health responses to humanitarian crises including the earthquake in Haiti, drought in Horn of Africa, conflict in Cote d'Ivoire and cholera in Zimbabwe. He previously worked in South Sudan for four years, including a secondment to MoH, South Sudan supporting coordination of the health sector. Chris is a medical doctor and continued working as a general practitioner until recently.

John-Arne Rottingen

Chief Executive of the Research Council of Norway and Adjunct Professor at the Department of Global Health and Population, Harvard T.H. Chan School of Public Health

Biography

Professor John-Arne Røttingen is the Chief Executive of the Research Council of Norway and Adjunct Professor at the Department of Global Health and Population, Harvard T.H. Chan School of Public Health. He was until recently the founding interim Chief Executive Officer of CEPI – Coalition for Epidemic Preparedness Innovations; Executive Director of Infection Control and Environmental Health at the Norwegian Institute of Public Health; and Professor of Health Policy at the Department of Health Management and Health Economics, Institute of Health and Society, University of Oslo. He is Associate Fellow at the Centre on Global Health Security, Chatham House and member of WHO Euro Advisory Committee on Health Research. He received his MD and PhD from the University of Oslo, an MSc from Oxford University and an MPA from Harvard University.

Yot Teerawattananon

Founding Leader of Health Intervention and Technology Assessment Program & Senior Researcher Scholar of Thailand's Research Fund

Biography

As a medical doctor and health economist by training, Yot Teerawattananon is a founding leader of the Health Intervention and Technology Assessment Programme (HITAP, <http://www.hitap.net/en>), a semi-autonomous health technology assessment agency under the auspices of Thailand's Ministry of Public Health. The work of HITAP have been used to inform policy decisions regarding the adoption of medicines, vaccines, medical devices, health promotion and disease prevention programmes under the Universal Health Coverage Scheme and the national pharmaceutical reimbursement list. Yot has also been appointed to serve on a number of national policy committees in Thailand, including the committee for development of the national pharmaceutical reimbursement list (since 2007). HITAP is also part of the international Decision Support Initiative (iDSI), and supporting HTA capacity building in Bhutan, India, Indonesia, Nepal, Myanmar, the Philippines and Vietnam. Yot is also one of the founders of HTAsiaLink (<http://htasialink.org/>), a regional network comprising of governmental health technology assessment agencies throughout Asia.

Aissatou Toure

Head of the Immunology Unit and Senior Researcher at the Pasteur Institute in Dakar

Biography

Dr Aissatou Toure is a senior researcher at the Pasteur Institute in Dakar where she heads the Unit of Immunology. She graduated in Pharmacy from University Cheikh Anta Diop in Dakar Senegal (PharmD, 1985) then specialized in Immunology that she studied at University of Lille, France (Msc, 1987) and at Pasteur Institute Paris in France (Diploma of General Immunology, 1987, Diploma of Advanced Immunology 1992). Dr Aissatou Toure conducts research in the area of immunology of malaria. She has served in several scientific and advisory groups including VIHPAL (French Government Program for HIV and Malaria research); EDCTP ((European and Developing Countries Clinical Trials Partnership); MVP (Meningitis Vaccine Project); EVI (European Vaccine Initiative),

MALVAC (expert group of WHO on malaria vaccines), COHRED (Council of Health Research for Development). Dr Aissatou Touré joined in 2016 WHO Advisory Committee on Variola Virus Research. In parallel to her scientific activities as researcher, Dr Toure has different activities in the field of ethics, which represents for her a major area of interest. She is currently member of the Senegalese National Ethic Committee for Health Research since 2003, tasked with evaluating scientific and ethical aspects of projects in health research, advising health authorities in the area of ethics, training ethics in health research.

From 2012 to 2016, Dr Aissatou Touré Toure participated as member of the Working Group to the revision of CIOMS 2002 International Ethical Guidelines for Biomedical Research Involving Human Subjects. From 2006 to 2013, Dr Toure was a member of the UNESCO International Committee on Bioethics (IBC) and as such contributed to the writing of several reports on various bioethics topics. Dr Aissatou Toure was member of the Working Group established by WHO during the Ebola outbreak to advice and make recommendations on specific ethical issues raised by the Ebola crisis.

Dr Aissatou Toure contributed to the writing of ethics manual and guidelines (WHO manual “Research Ethics Committees: basic concepts for capacity building”, WHO document on “Guidance for managing ethical issues in infectious diseases outbreaks”) and to different activities of capacity building in research and in ethics at the national level as well at the international level.

Jimmy Whitworth

Professor of International Public Health at the London School of Hygiene & Tropical Medicine

Biography

Jimmy Whitworth is Professor of International Public Health at the London School of Hygiene & Tropical Medicine, where he studies ways to improve epidemic responses, in developing countries, in the UK and globally. The work was initially focused on ebola in west Africa, but has widened to cover other epidemics such as zika and yellow fever, stimulating and guiding research activity, and in rebuilding health system capacity, surveillance and response. He is the interim deputy director and academic lead for the newly established UK Public Health Rapid Support Team.

Previously he was head of International Activities (2004-2013), and Population Health (2013-2015), at the Wellcome Trust where he was responsible for strategy, policy and developing the scientific portfolio for research on population science and public health research in the UK and in low and middle income countries.

He qualified in medicine from Liverpool University in 1979, and specialises in infectious diseases, epidemiology and public health. Previous roles include working in The Gambia for Save the Children Fund (1983-5), in Bo, Sierra Leone for the Medical Research Council, where he led studies on ivermectin treatment for onchocerciasis from 1986-1990. He was Team Leader for the Medical Research Council Programme on AIDS, based at the Uganda Virus Research Institute in Entebbe, from 1995 until 2002. Jimmy has been an academic staff member at both the Liverpool School of Tropical Medicine and the London School of Hygiene & Tropical Medicine.

Stefano Messori

**Chargé de mission at the World Organisation for Animal Health (OIE), Paris;
Scientific Secretary for the STAR-IDAZ International Research Consortium on
animal health**

Biography

Stefano Messori graduated in Veterinary Medicine at the University of Parma (Italy). He holds a PhD in animal science from the University of Bologna (Italy) and has been recognised as European Veterinary Specialist on Animal Welfare Science, Ethics and Law by the European College of Animal Welfare and Behavioural Medicine.

During his career, he has undertaken research activities on animal health and welfare in several research and governmental institutions in Italy and France, and he has been involved in the lecturing and management of training initiatives for veterinary authorities at European level.

From 2011 to 2016, he worked as a researcher and expert in the management of international projects at the OIE Collaborating Centre for Veterinary Training, Epidemiology, Food Safety and Animal Welfare of IZSAM (Teramo, Italy). From 2012 to 2016, he worked for the Italian Ministry of Health, where he was in charge of identifying research gaps on animal health and welfare to support decision-makers on research prioritisation and in the alignment of research programmes. In this role, he co-organised and implemented international foresights for the definition of Strategic Research Agendas on animal health.

In November 2016, he started his current position as Chargé de mission in the Science and New Technologies Department of the OIE. There, he is in charge of the Scientific Secretariat for the STAR-IDAZ IRC, a major international collaboration initiative to coordinate research on animal health at global level.

In his current function, he will direct research gap analyses and advise on the realignment of research programmes, in order to foster the development of new and improved animal health strategies and tools for prevention, diagnosis, treatment, control, and eradication of priority animal diseases, including zoonoses.