

Surveillance and Response to Infectious Diseases and Comorbidities: An African and German Perspective

Southern Sun Elangeni & Maharani, Durban

11 – 13 April 2018



08:30 – 09:00	Arrival and Registration
Session 1:	Opening
	Facilitator: Prof Roseanne Diab , Academy of Science of South Africa, South Africa
09:05 – 09:20	Welcoming Remarks Prof Jonathan Jansen , Academy of Science of South Africa, South Africa Prof Jörg Hacker , German National Academy of Sciences Leopoldina, Germany Mr Christian Acemah , Uganda National Academy of Sciences, Uganda
09:20 – 09:45	Opening Remarks Ms Malebona Matsoso , Department of Health, South Africa
09:45 – 10:15	Keynote Address I <i>Future Prospects in Infectious Diseases: Critical Tools to Manage Outbreaks on the Continent</i> Dr Izukanji Sikazwe , Centre for Infectious Disease Research in Zambia, Zambia
10:15 – 10:45	Keynote Address II <i>Metabolism and Pharmacokinetics of Anti-Parasitic Drugs – Implication for Treatment, Safety and Efficacy</i> Dr Collen Masimirembwa , African Institute of Biomedical Sciences & Technology, Zimbabwe
10:45 – 11:15	Tea Break and Group Photo
11:15 – 12:15	Roundtable Discussion I: <i>Challenges of Diagnosis and Management of Comorbidities</i> Moderator: Prof Peter Mugenyi , Mbarara University of Science and Technology, Uganda Panelists: <ol style="list-style-type: none">1. Dr Shevin Jacobs, Liverpool School of Tropical Medicine, United Kingdom2. Dr Alex Sigal, Africa Health Research Institute, South Africa3. Dr Jackson Marakalala, University of Cape Town, South Africa4. Prof Gayle Sherman, National Health Laboratory Service, South Africa5. Dr Norbert Heinrich, University Hospital, LMU, Munich, Germany
12:15 – 13:00	Lunch
Session 2:	Antimicrobial Resistance
	Facilitator: Prof Charles Wiysonge , South African Medical Research Council, South Africa
13:00 – 13:30	Keynote Address III <i>Antibiotic Resistance in Africa: Challenges and Strategies</i> Prof Sabiha Yusuf , University of KwaZulu-Natal, South Africa
13:30 – 14:00	<i>Long Term Bedaquiline-Related Treatment Outcomes in Patients with Extensively Drug Resistant Tuberculosis from South Africa</i> Dr Olatunde Olayanju , University of Cape Town, South Africa

- 14:00 – 14:30** *Discovery of New Anti-Infectives from Fungal and Bacterial Sources*
Dr Kathrin Wittstein, Helmholtz Centre for Infection Research, Germany
- 14:30 – 15:00** *Towards the Development of the Next Generation of Antibiotics from Fungal Sources*
Dr Patrick Arthur, University of Ghana, Ghana
- 15:00 – 15:30** **Tea Break**
- 15:30 – 16:00** *Antibiotic Resistance and Molecular Epidemiology of Shingella Isolates from Children Less than Five Years in Manhica, Southern Mozambique*
Mr Delfino Vubil, Manhica Health Research Centre, Mozambique
- 16:30 – 16:30** *Flavonoids with Significant Antibacterial Activity from Pseudathria hookeri Wight and Arn (Fabaceae)*
Mr Joseph Tchamgoue, University of Yaounde I, Cameroon
- 16:30 – 17:00** *Actinobacteria Biosynthetic Potential: Bridging In-Silico and In-Vivo*
Prof Andriy Luzhetskyy, Helmholtz Institute for Pharmaceutical Research Saarland, Germany

Session 3: Evening Panel Discussion

- 18:00 – 18:05** **Welcome**
Prof Sabiha Yusuf, University of KwaZulu-Natal, South Africa
- 18:05 – 18:25** **Keynote Address IV**
Capacity Development in Health Research
Prof Glenda Gray, Medical Research Council, South Africa
- 18:30 – 19:30** **Panel Discussion II:**
Strengthening Disease Surveillance in Africa – Options and Opportunities
- Moderator:**
Prof Quarraisha Abdool Karim, Centre for the Aids Programme of Research in South Africa, South Africa
- Panelists:**
- 1. Prof Peter Mugenyi**, Mbarara University of Science and Technology, Uganda
 - 2. Dr Kerrigan McCarthy**, National Institute for Communicable Diseases, South Africa
 - 3. Prof Stefan Kaufmann**, Max Plank Institute for Infection Biology, Germany

- Session 4:**
- Facilitator:**
Dr Oladoyin Odibanjo, Nigerian Academy of Sciences, Nigeria
- 09:00 – 09:30** **Keynote Address V**
Novel Biomarkers and Vaccines for Tuberculosis Control
Prof Stefan Kaufmann, Max Plank Institute for Infection Biology, Germany
- 09:30 – 10:00** **Keynote Address VI**
*Virulence Factors of the Human-Pathogenic Fungus *Aspergillus fumigatus* and Novel Antibiotics*
Prof Axel Brakhage, Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute, Germany
- 10:00 – 10:30** **Keynote Address VII**
Refocusing on STIs
Prof Koleka Mlisana, University of KwaZulu-Natal, South Africa
- 10:30 – 11:00** **Tea Break**
- 11:00 – 12:00** **Roundtable Discussion III:**
One Health
- Moderator:**
Prof Thomas Mettenleiter, Federal Research Institute for Animal Health, Germany
- Panelists:**
1. **Prof Thumbi Ndung'u**, University of KwaZulu-Natal, South Africa
 2. **Dr Alison Lubisi**, Agricultural Research Council, South Africa
 3. **Dr Kristina Roesel**, International Livestock Research Institute, Kenya
 4. **Prof Marietjie Venter**, University of Pretoria, South Africa
 5. **Prof Rose Hayeshi**, North-West University, South Africa
- 12:00 – 13:00** **Lunch**
- Session 5:**
- Big Four: HIV, TB, Malaria, HCV**
- Facilitator:**
Dr Kerrigan McCarthy, National Institute for Communicable Diseases, South Africa
- 13:00 – 13:30** *Malaria and West-Nile Virus Co-Infection Amongst Febrile Patients Attending a Tertiary Hospital in Abuja, Nigeria*
Mr Aina Kehinde Oluwasegun, University of Ilorin, Nigeria
- 13:30 – 14:00** *Lipids Go Viral: Deciphering the Function of Lipids and Lipid Droplets in HCV Infection*
Dr Eva Herker, Leibniz Institute for Experimental Virology, Germany
- 14:00 – 14:30** *Prevalence of Human Papilloma Virus and Factors Associated with Oral and Oropharyngeal Squamous Cell Carcinoma Among HIV-1 Infected Patients Attending Mulango Hospital, Uganda*

- 14:30 – 15:00** **Dr Annah Margret Biira**, Makerere University, Uganda
Tea Break
- Facilitator:**
Prof Stefan Kaufmann, Max Plank Institute for Infection Biology, Germany
- 15:00 – 15:30** *The Development of a Nanomedicine-Based Drug Delivery System with the Potential to Improve Tuberculosis Therapy*
Dr Madichaba Chelopo-Mgobozi, North West University, South Africa
- 15:30 – 16:00** *Importance of Human Proteins for Survival of Human Malaria Parasite *P. falciparum*: An Unexpected Achilles Heel*
Dr Jude Przyborski, Heidelberg University Hospital, Germany
- 16:00 – 16:30** *Polymorphisms in HIV-1 NEF and TAT Associated with Endothelial Dysfunction*
Ms Genevieve Mezoh, University of the Witwatersrand, South Africa
- 16:30 – 17:00** **Wrap-up, Vote of Thanks & Closing of the Scientific Conference**
Prof Quarraisha Abdool Karim, CAPRISA, South Africa
Prof Peter Mugenyi, Mbarara University of Science and Technology, Uganda
Prof Stefan Kaufmann, Max Plank Institute for Infection Biology, Germany

Biographies



Christian Acemah is the Executive Secretary of the Uganda National Academy of Sciences (UNAS), where he leads strategic, programmatic, financial, and administrative issues of the Academy's secretariat. He is also a Visiting Professor of African Studies at Quest University, Canada, where he teaches a range of courses on African development, politics, feminism, and the arts. Prior to joining UNAS, Christian was Director for Strategy and Program Development for the African Science Academy Development Initiative of the US National Academies. Christian has also served as Executive Officer, Policy and Research at UNICEF within the GAVI Alliance Secretariat in Geneva, Switzerland. In that role, he was an advisor to the CEO of GAVI. Prior to that, he worked in the Sudan-Uganda program of the Lutheran World Federation/Department for World Service on livelihoods projects and HIV/AIDS advocacy, monitoring, and evaluation. He has also been a development economics researcher for Dr Callisto Madavo, former Vice President of the World Bank and development anthropology researcher for Prof Gwendolyn Mikell at Georgetown University. He holds a degree in Mathematics and Philosophy from St John's College in Santa Fe, NM and Master of Science degree in International Development Economics and Strategy from Georgetown University in Washington, DC.



Peter Mugenyi, MB, ChB, FRCPI, ScD (Hon), is the Executive Director of the Joint Clinical Research Centre (JCRC), a center of excellence that has provided leadership in AIDS care, treatment, research, and prevention in Uganda. The JCRC is a pioneer of antiretroviral therapy (ART) in Africa and currently treats one of the largest numbers of AIDS patients with highly active antiretroviral therapy (HAART) on the continent. He is also the Chair of Africa Dialogue on AIDS (ADAC), and AIDS Care Research in Africa (ACRiA), which are African led initiatives to coordinate HIV/AIDS activities and define best practices for prevention, care, treatment, and research. Peter holds other important responsibilities in academic institutions, and national and international organizations involved in planning, review and execution of policies and projects on AIDS treatment and research, HIV vaccines trials, access to drugs, poverty alleviation, and policy formulation and communication. He has provided technical and management expertise to a number of developing countries including his own Uganda Ministry of Health where he is the AIDS Task Force Chairman, responsible for planning and execution of the for national scaling up of ART program.



Patrick Kobina Arthur is lecturer at Department of Biochemistry, Cell and Molecular Biology of the University of Ghana. He obtained a PhD in Developmental Biochemistry at the University of Göttingen in Germany. He has undertaken several post-doctoral fellowships at the University of Maryland - College Park, USA, Swiss Federal Institute of Technology, Zurich (ETH-Zurich) and the Department of Chemistry, University of Cambridge in the UK. His research activities are in the area Chemical Systems Biology of Infectious Pathogens that comprises Infection Biology of Tuberculosis, Chemical Biology of Fungal Metabolites, Advanced Imaging Techniques and Mass Spectrometry-based Proteomics of the perturbations caused in infectious pathogens by novel bioactive compounds. Patrick has won a number of research grants from various organisations, such as DAAD-Germany, Grand Challenges Canada, TWAS-Italy, IFS-Sweden, and Gates Foundation/NMIMR. He was selected as a fellow to attend the Lindau Nobel Laureates Meeting as well as a member of the Global Young Academy (GYA) in 2012 where he served as a non-voting member of the Executive Committee of the GYA from 2012 - 2013.



Annah Margret Biira is the Head of Department at Mulango Hospital and registered with the Uganda Medical and Dental Practitioner's Council. She has more than 5 years work experience in the field of medicine and surgery specialising in diseases, injuries and defects in the head, neck and the hard and soft tissues of the oral and maxillofacial region. She has amassed clinical and surgical skills in benign and malignant pathology, cysts, tumors, congenital craniofacial malformations such as cleft lip and palate and cranial vault malformations such as craniosynostosis. She has been involved in the implementation of health projects as well as National Health programs aimed at improving case detection, reporting and ultimately treatment and care aimed towards improving awareness campaigns for cancers and other pathologies in the country at large. Her expertise in maxillofacial surgery, combined with basic science research especially in cancers and carcinomas associated with HIV-1 gives her an edge in both the clinical and basic science subsector.



Axel Brakhage received a Master degree in Microbiology from the University of Muenster, Germany. He carried out his PhD work at the Institute of Microbiology, University of Muenster, Germany and the *Institut de Biologie Physico-Chimique*, Paris, France on the mode of action of the fungal toxin ochratoxin A on *Bacillus subtilis*. After a short stay in industry, he received a postdoctorate stipend from the Deutsche Forschungsgemeinschaft to move on to the University of Sheffield, UK, to work on regulators of antibiotic biosyntheses in the fungus *Aspergillus nidulans*. He continued this work as an Assistant Professor at the University of Munich where he also started research on the infection biology of the human-pathogenic fungus *Aspergillus fumigatus*. He became Associate Professorship at Darmstadt University of Technology, Full-Professor at the University of Hanover and in 2004 Full Professor at the Friedrich Schiller University Jena, with simultaneous appointment as Head of Department and Director of the Leibniz Institute for Natural Product Research and Infection Biology (HKI) in Jena, Germany. He coordinates a DFG-funded collaborative research center/transregio on human-pathogenic fungi – FungiNet and the DFG-funded excellence graduate school Jena School for Microbial Communication. He also serves as the spokesperson of the BMBF-funded consortium on infectious diseases – InfectControl2020. Axel Brakhage is a member of scientific advisory boards of several institutes and a member of the university council of the FSU Jena. He received several awards including the election as member of the Leopoldina. He is member of the editorial board of several journals including eLife. He has published some 250 papers.



Madichaba Phuti Chelopo-Mgobozi is South African scientist focused on health science research. She obtained her BSc degree in Biochemistry and Chemistry in 2009; a BSc (Hons) degree in Chemistry in 2010 and MSc in Medical Science degree in 2013 from the University of Kwa-Zulu Natal (UKZN). She recently completed her PhD degree in Pharmaceutical Chemistry, which will be conferred at the North-West University (NWU) in May 2018. She was hosted by the Council for Scientific and Industrial Research (CSIR) for her PhD project, which was funded by the National Research Foundation (NRF) through a Professional Development Programme. Her project focussed on the development of a novel drug delivery systems for tuberculosis therapy. Her scientific research interest includes the discovering and improving treatments for neglected infectious diseases and the use of nanomedicine. She was one of the selected young scientists to attend the 67th Lindau Nobel Laureate Meeting dedicated to chemistry in 2017.



Roseanne Diab is Executive Officer of the Academy of Science of South Africa (ASSAf) and Professor Emeritus in the School of Environmental Sciences, University of KwaZulu-Natal. She is a Fellow of the University, the South African Geographical Society, the Academy of Sciences for the Developing World (TWAS) and a Member of the Academy of Science of South Africa (ASSAf). She has served on numerous international committees such as the International Ozone Commission (IOC), the Commission on Atmospheric Chemistry and Global Pollution (CACGP) and the SPARC (Stratospheric Processes and their Role in Climate) Steering Group. She is active in the Organisation for Women Scientists in the Developing World (OWSD) and serves on the Gender Advisory Board to TWAS.



Sabiha Essack is a Professor in Pharmaceutical Sciences at the University of KwaZulu-Natal (UKZN) is the South African Research Chair in Antibiotic Resistance and One Health. Professor Essack serves/d as an expert consultant on antimicrobial resistance to the WHO Regional Office for Africa, the Eastern Mediterranean Regional Office and the South East Asia Regional Office. She is Vice Chairperson South African Ministerial Advisory Committee on Antimicrobial Resistance, founder and co-chair of the South African Chapter of the Alliance for the Prudent Use of Antibiotics (APUA), member of the FIP Working Group on Antimicrobial Resistance and member of the Global Respiratory Infections Partnership (GRIP). She serves on the South African Chapter of the Global Antibiotic Resistance Partnership (GARP) and the South African Antibiotic Stewardship Programme.



Glenda Gray, MBBCH, FCPaed (SA), DSc (honoris causa), an NRF A-rated scientist, is the President of the South African Medical Research Council. Gray, who trained as a Medical Doctor and Paediatrician at the University of the Witwatersrand, co-founded and led the internationally renowned Perinatal HIV Research Unit, based at the Chris Hani Baragwanath Hospital in Soweto. She has expertise in mother to child transmission of HIV, HIV vaccines and microbicides. She is the Co-PI of the HIV Vaccine Trials Network and Director of the HVTN International Programs. In 2002, she was awarded the Nelson Mandela Health and Human Rights Award for pioneering work done in the field of Mother-to-Child Transmission of HIV-1. She is a member of the Academy of Science in South Africa. She is a member of the Institute of Medicine, of the National Academies, and serves on their Global Health Board. She has also been confirmed as the Chair for the Global Alliance for Chronic Diseases (GACD). Gray has also been awarded the IAPAC "Hero of Medicine" award for work done in the field of HIV treatment in children and adults. In 2009, James McIntyre and Gray received the N'Galy-Mann lectureship in recognition of their HIV research contribution in South Africa. In June 2012, she received a DSc (honoris causa) from the Simon Fraser University, Vancouver for her work in the field of mother to child transmission of HIV. She has also been admitted into the American Academy of Microbiology in 2012. In 2013 she received the country's highest honour, the Order of Mapungubwe, granted by the president of SA for achievements in the international area which have served South Africa's interest as well as the EDCTP's outstanding Africa scientist award. In 2017, she was listed amongst the Times 100 influential people in the world.



Jörg Hacker was born in 1952. From 1970 to 1974, he studied Biology at Martin Luther University Halle, where he also obtained his PhD in 1979. From 1980 to 1988, he worked at the Department of Microbiology at the University of Würzburg, where he was promoted to Professor in 1986. His research focussed on the molecular analysis of pathogenic bacteria and host-microbe interaction. Starting in 1988, Jörg Hacker worked as Professor at the University of Würzburg and from 1993 onwards, he lead the Würzburg Institute for Molecular Infection Biology. In 2000 and 2005, Jörg Hacker did his research at the Pasteur Institute in Paris as a visiting researcher. Furthermore, he taught at Tel Aviv University as guest professor in 2006. From 2003 to 2009, Jörg Hacker was Vice President of the German Research Foundation (DFG) and from 2008 until 2010, he was President of the Robert Koch Institute. Since March 2010, Jörg Hacker has been President of the German National Academy of Sciences Leopoldina. He received numerous awards and honours and he is honorary citizen of his hometown Grevesmühlen. Jörg Hacker is member in national and international academies, scientific societies and committees. From 2014 to 2016, he was member of the Scientific Advisory Board, which has been set up by the UN Secretary-General Ban-Ki Moon.



Rose Hayeshi is an Associate Professor at the DST/NWU Preclinical Drug Development Platform, North-West University, Potchefstroom, South Africa. She holds a PhD in Biochemistry and has evolved into the field of pharmaceutical sciences. Her expertise in pharmaceutical sciences has been gained through training and research positions held in Zimbabwe, Sweden, The Netherlands and South Africa. Her research interests are in drug metabolism, drug transport and preclinical testing for drug development. She has co-authored 19 publications in international peer-reviewed journals and 2 book chapters.



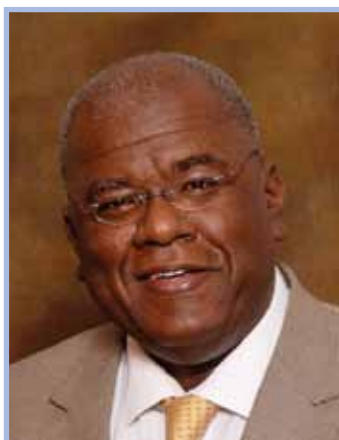
Norbert Heinrich started voluntary work in a mission hospital in Malawi, Africa during his medical studies. After completing his MD studies at Technical University of Munich medical school, he went through pediatric specialisation in Munich, Mannheim and Bonn, Germany. After board certification, Norbert joined the Tropical Diseases Division of LMU's medical center, and became the coordinator of the TB treatment trials run by the Division. To date, these included two regulated TB trials on new drugs within the PanACEA consortium; as well as close interactions on studies and staff capacity building with our long-term partner institution in Mbeya, Tanzania. These activities are embedded in the PanACEA consortium for TB treatment studies. More recently, he started clinical studies on new TB diagnostics, with a study in Munich, and acquisition of funding for an African – European consortium on child TB diagnostics.



Eva Herker studied biochemistry at the universities of Potsdam and Tübingen. During her graduate research in Frank Madeo's lab at the Institute of Physiological Chemistry at the University of Tübingen, Germany, she unraveled basic mechanisms of cell death in yeast and contributed to the establishment of yeast as a model organism to study apoptotic regulation. For her postdoctoral research she joined Melanie Ott's lab at J. David Gladstone Institutes in San Francisco, switched research organism and topic (funded by the Human Frontiers Science Organization), and started working on virus-host interactions in Hepatitis C Virus (HCV) infection with a focus on lipid metabolism. In particular, Eva identified a novel host factor (DGAT1) necessary both for efficient HCV assembly at lipid droplets and involved in HCV pathogenesis. These findings underscored the critical role of lipid droplets in HCV biology and revealed that specific subtypes of lipid droplets exist and only a subset supports HCV infection. In 2011, she joined the Heinrich Pette Institute, Leibniz Institute for Experimental Virology (HPI) in Hamburg as head of the Junior Research Group HCV Replication. Her lab studies virus-host-interactions with a focus on the following major topics: i) to understand the function of lipid droplets in viral infections, ii) to decipher and visualize cell biological consequences of infection, and iii) to unravel how viruses like HCV alter the host lipid metabolism to enhance their replication.



Shevin Jacob is a Global Health Security Team Leader at the Infectious Diseases Institute in Kampala, Uganda. He is an infectious diseases physician with an appointment at the Liverpool School of Tropical Medicine as a Senior Clinical Lecturer in Sepsis Research. Since 2006, Jacob's research has been predominantly focused on improving our understanding of sepsis in adult and adolescent patients hospitalized in resource-constrained settings, primarily Uganda. Since 2009, he has also served as a World Health Organization consultant in different capacities to improve the clinical management of sepsis and other severe illnesses in resource-constrained settings, including as a clinician in the front lines of the 2013-2016 West Africa Ebola outbreak. He is presently the Secretary General for the African Sepsis Alliance, a newly established collaboration of African countries and international professional bodies dedicated to improving outcomes from sepsis in Africa.



Jonathan Jansen is Distinguished Professor in the Faculty of Education at Stellenbosch University (SU) and ASSAf President. He is the immediate past Vice-Chancellor and Rector of the University of the Free State (UFS) and a Fellow at the Centre for Advanced Studies in the Behavioral Sciences at Stanford University. He is a Fellow of the American Educational Research Association, a Fellow of The World Academy of Sciences (TWAS) and also President of the South African Institute of Race Relations. His book, *Knowledge in the Blood: Confronting Race and the Apartheid Past* (Stanford, 2009) won the Nayef Al Rodhan Prize, the largest award from the British Academy for the social science and humanities, for its contribution to scholarly excellence and transcultural understanding. In 2013, he was awarded the Education Africa Lifetime Achiever Award in New York and the Spendlove Award from the University of California for his contributions to tolerance, democracy and human rights. He holds honorary degrees from the University of Edinburgh, the University of Vermont and Cleveland State University. His recent books include *Leading for Change* (Routledge, 2016) and he is completing a new book explaining the current crisis in, and future prospects of, the South African university due for release in mid-2017 (NB Publishers).



Quarraisha Abdool Karim is the Associate Scientific Director of CAPRISA (Centre for the AIDS Programme of Research in South Africa) and an infectious diseases epidemiologist. Abdool Karim's research focus includes: understanding the evolving HIV epidemic in South Africa; factors influencing acquisition of HIV infection in adolescent girls; development and evaluation of prevention interventions for HIV prevention in young women and sustainable strategies to introduce HAART in resource-constrained settings. She has over 200 peer reviewed publications and is editor of several books. She is a member of the UNAIDS Scientific Expert Panel and Scientific Advisor to the Executive Director of UNAIDS. She is a UNAIDS Special Ambassador for Adolescents and HIV. She is an Advisory Board member of the End AIDS Coalition; MACAIDS Foundation and Scientific Advisory Board member of the US President's Emergency Pan for AIDS Relief (PEPFAR), Chair of the PEPFAR PrEP Expert Working Group and is Vice-Chair of the Board of the South African Medical Research Council where she also chairs the Research and Development Committee. She is a Fellow of the Academy of Science of South Africa. Notably she was the Principal Investigator of the landmark CAPRISA 004 tenofovir gel trial which provided proof of concept for Microbicides highlighted by Science as one of the Top 10 scientific breakthroughs in 2010. She is a recipient of several prestigious local and international awards including the Science-for-Society Gold Medal ASSAf Award in recognition of significant achievement in the advancement or the application of science. Prof Abdool Karim features in the book published by ASSAf titled "Legends of South African Science" as one of the 53 eminent South African scholars and scientists. She is a NRF A-rated scientist.



Stefan HE Kaufmann is the Founding Director of the Max Planck Institute for Infection Biology in Berlin, Germany, where he heads the Department of Immunology. He is Professor for Microbiology and Immunology, Charité University Clinics Berlin, Germany. Stefan studied biology at the Johannes Gutenberg University of Mainz, 1977 PhD (highest degree, summa cum laude). From 1987 to 1991 he was Professor for Medical Microbiology and Immunology, and from 1991 to 1998 full Professor for Immunology at the University of Ulm. He received a Doctor Honoris Causa from the University of Marseille and is Fellow of the Royal College of Physicians of Edinburgh (FRCP Edin). He is also Honorary Professor of the Universidad Peruana Cayetano Heredia, Lima, Peru, Guest Professor at Tongji University, School of Medicine, Shanghai, China and Visiting Professor at Peking Union Medical College at Beijing, China. He is former President of the German Society for Immunology, the European Federation of Immunological Societies and the International Union of Immunological Societies. Previously, he was Board Member of the Global Alliance for Vaccines and Immunisation (GAVI) and of the Global Alliance for TB Drug Development (TB Alliance). Currently, he is member of the Scientific Advisory Committee of the European and Developing Countries Clinical Trials Partnership (EDCTP). Stefan received numerous scientific awards and has been coordinator of several international and interdisciplinary projects. He published more than 900 papers mostly in high-ranking journals with more than 55,000 citations and an h-index of 125 (Google Scholar). He is member of numerous professional societies and academies including American Academy of Microbiology, Berlin-Brandenburg Academy of Sciences and Humanities, German National Academy of Sciences Leopoldina, World Innovation Foundation and European Molecular Biology Organization (EMBO).



Alison Lubisi joined the ARC-OVI's Virology Section in 2008 as its Head and also managed the World Organisation for Animal Health (OIE) reference laboratories for Rift valley fever (RVF), a lethal zoonotic disease, lumpy skin disease (LSD), Bluetongue (BT) and African horse sickness (AHS). She has performed a number of disease outbreak investigations, epidemiological baseline surveys, laboratory capacity evaluation, and laboratory and field personnel training in a number of African countries on behalf of international organisations such as the OIE, Food and Agriculture Organisation (FAO) of the United Nations (UN), and Arab Authority for Agricultural Investment & Development (AAAD). Alison has contributed to numerous national and international conferences, meetings and workshops, authored and co-authored articles in peer-reviewed journals, is a member of two editorial boards, and reviews research proposals and articles for international funding bodies and journals. Her definitive research interest is on host pathogen interactions at cellular and immunological levels, pathogen interaction in co-infection scenarios and effect on the host, and pathogen similarities and differences at biological, physico-chemical and molecular levels.



Andriy Luzhetskyy is a Ukrainian scientist who studied biology at the Ivan Franko National University of Lviv, Ukraine, where he worked on genetics and microbiology during his Diplom thesis. He did his doctoral thesis at the "Laboratory of Genetics and Genetic Engineering of Industrially Important Microorganisms" at Lviv and received the Eugen-Graetz award for the best thesis. He then changed to the Institute for Pharmaceutical Sciences at the Albert-Ludwigs University at Freiburg where he founded his own junior research group in 2008. Since 2011, he heads a junior research group at the Helmholtz Institute for Pharmaceutical Research Saarland (HIPS). In February 2011, Andriy was awarded the German Society for Chemical Engineering and Biotechnology (DECHEMA) prize for junior researchers in natural products research. In 2012, he received an European Research Council (ERC) Starting Grant to work on synthetic biology of actinobacteria. Since October 2015, he has held a chair as professor of Pharmaceutical Biotechnology at Saarland University.



Mohlopheni Jackson Marakalala was born in Mokopane, South Africa. He is currently a senior lecturer and a group leader at the University of Cape Town, with research interests in Immunology and Infectious Diseases, Tuberculosis Biomarkers and Host-Directed Therapies. He has presented his research in local and international conferences (over 10 countries), and published in leading journals, including Nature Medicine, PNAS, Plos Pathogens and Cell Host Microbes. His vision is to increase educational opportunities in Africa to help solve local challenges. He also intends to increase research capacity building in Africa, by training PhD students from previously disadvantaged community. His personal awards include SA Medical Research Council Scientific Merit award for outstanding young scientist (2016); UCT 2016 College of Fellows Young Researcher Award. He was named a Fellow of the Next Einstein Forum (2016), which is awarded to 15 young scientists throughout Africa, who are using science as a platform to solve global challenges. He was also honoured as a World Economic Forum (WEF) Young Scientist, at the WEF New Champions meetings in Dalian, China (2015), and in Tianjin, China (2016). He was the recipient of the Sydney Brenner Fellowship (2010-2012) that is awarded by the Academy of Sciences of South Africa to an outstanding young scientist working in South Africa. He was awarded the Bronte Stewart Research Prize for the most meritorious PhD thesis in the Faculty of Health Sciences, University of Cape Town, 2008. He recently received the Wellcome Trust Intermediate Fellowship in Tropical Medicine and Public Health.



Collen Masimirembwa is the founding President and Chief Scientific Officer of the African Institute of Biomedical Science and Technology, AiBST. He previously worked for AstraZeneca Pharmaceutical Company in Sweden for 10 years as a Principal Scientist in DMK & Bioanalytical Chemistry. With support from various funding organizations (ISP, EDCTP, CDC, TWAS, WHO, NIH, NEPAD/SANBIO), companies (AstraZeneca, Novartis, Merck) and colleagues in academia and industry, he has established AiBST research laboratories in Zimbabwe and South Africa that focus on drugs and diagnostics innovation. He is Honorary Professor of Clinical Pharmacology at the University of Cape Town and of Health Sciences at the University of KwaZulu Natal in South Africa. He is also a Fellow of the Zimbabwe Academy of Sciences and the African Academy of Sciences. Collen is a pioneer of pharmacogenetics research in Africa and continues to champion its development to clinical applications. He conducted the first molecular genetic studies in African populations in the early 90s leading to the discovery of the African specific CYP2D6 genetic variant, CYP2D6*17. Over the past 25 years he has endeavored to integrated pharmacogenetics in the drug discovery and development value chain with a particular interest in understanding the genomic diversity of African populations and its implications for drug safety and efficacy. He has published over 90 original papers on the metabolism & pharmacokinetics of antiparasitic drugs and on the population genetic polymorphism of ADME genes in Africa. This has allowed him to combine pharmacokinetics modeling & simulation and molecular structural & functional studies of genetic variation of ADME to bridge basic genetic polymorphism research to clinical applications. This research has led to the award-winning pharmacogenetics test and dosing algorithm for the safe use of the antiretroviral drug, efavirenz (EFV). The product, GeneDose™-EFV is now under commercial development. To build capacity for pharmacogenomics research in Africa Collen has used his institute and extensive international network of collaborators to train Masters and PhD students in Africa, who are, in their various settings conducting basic and translational pharmacogenetics research.



Malebona Precious Matsoso is the Director General of the National Department of Health since June 2010 to date. She has more than 20 years work experience at executive management level. She has held leadership positions at national and international level for large international organisation in key strategic leadership positions, covering areas of public health policy and program development; ethics and research. She has extensive knowledge and experience with developing countries, the United Nations system, high levels of governments, and other key institutions. She was the Director at the World Health Organisation (WHO) responsible for the implementation of the Global Strategy and Plan of Action Prior to this she was the Director of Technical Cooperation for Essential Drugs and Traditional Medicine. She has published various articles and authored book chapters. She has been appointed to various advisory bodies both nationally and internationally. She was previously the chairperson of the Executive Board of World Health Organisation (WHO). She was appointed as a member of a High Level Panel on Health Technologies of the United Nation. This panel comprise of eminent leaders from the public and commercial worlds, tasked with making recommendations to the UN on how the future of Health Technologies innovation can be balanced with access for all in line with SDG3. She is currently the Chairperson of the Independent Oversight and Advisory Committee (IOAC) of the World Health Organisation's Emergencies Programme, to provide oversight and monitoring of the development and performance of the programme, including its financing. She is also a member of the Lancet Commission.



Kerrigan McCarthy is the Head of the Outbreak Response Unit and the Acting Head of the Division of Public Health, Surveillance and Response of the National Institute for Communicable Diseases. She has a unique combination of public health, laboratory specialist, social science and clinical infectious diseases work experience within the South African public and NGO sectors. After graduating from the University of the Witwatersrand with MBBCh (1995), and obtaining a specialist qualification in Microbiology (FC-Path (Micro) in 2002, she served as Head of the Mycology Unit at the National Institute of Communicable Diseases (NICD) 2002-7, where with the GERMS-SA surveillance network, she established national surveillance for cryptococcal disease, fungal susceptibility testing, and fungal molecular epidemiology. In 2007 she moved into the NGO sector to assume responsibility for TB/HIV integration in PEPFAR funded projects in the City of Johannesburg and facilitate investigator-led implementation science research agenda related to TB diagnostics, TB case-finding and INH prophylaxis. In 2011, Kerrigan moved to the Aurum Institute, as Scientist and Co-ordinator of the XTEND study - a pragmatic randomised controlled trial of Xpert vs smear for TB diagnosis in 40 clinics across 4 SA provinces. From 2005 - 2015, Kerrigan provided clinical service at Nazareth House, Johannesburg for persons living with HIV, including ART initiation and management of a 22-bed inpatient hospice. Kerrigan graduated with a MPhil (theology) in 2012 with a dissertation entitled 'A theology of healing for contemporary South Africa - a phenomenological and multidisciplinary approach from the perspectives of Western medicine, African Traditional Religion and Christian theology.'" Currently, as Head of the Outbreak Response Unit at the National Institute for Communicable Diseases (NICD), Kerrigan manages a team of persons who support national, provincial and district government with regard to outbreak investigation. She has overall responsibility for the NICD Public Health Emergency Operations Centre in accordance with the International Health Regulations.



Thomas C. Mettenleiter was born in 1957 in Göppingen, Germany. He studied biology at the University of Tübingen, Germany, and has a doctorate degree in natural sciences. In addition, he holds an honorary veterinary doctorate of the University of Veterinary Medicine Hanover. Since 1997, he has been serving as the President of the Friedrich-Loeffler-Institut, Federal Research Institute for Animal Health, Germany. Simultaneously, he has been director of the FLI's Institute of Molecular Virology and Cell Biology (IMVZ) since 1994. He is a molecular virologist specialising in herpes viruses of animals, in particular cattle, pigs, poultry and fish, and has thirty years' experience in the field of animal health. He joined the Federal Research Centre for Virus Diseases of Animals (now Friedrich-Loeffler-Institut) in 1982. Besides his focus on animal herpes viruses, he is also involved in research into the molecular biology of other animal viruses including Avian Influenza Viruses, African Swine Fever Virus, Rabies Virus and Newcastle Disease Virus. Thomas also is an adjunct professor at the University of Greifswald, Germany, and a member of the German Academy of Science Leopoldina. Further memberships include the Academy of Sciences in Hamburg, the Polish Academy of Sciences and the Royal Academy of Medicine of Belgium. He is Board Member of the European Society for Veterinary Virology and of the European Society for Virology.



Genevieve Mezh obtained a Bachelor's degree in Biochemistry in 2007 from the University of Yaounde I in Cameroon; awarded the UJ Postgraduate Merit Bursary to undertake Honours in Biochemistry at the University of Johannesburg (UJ) in South Africa in 2010; I went on to pursue a Masters degree in Biochemistry at UJ. Genevieve is currently a medical scientist and associate lecturer at the department of Chemical Pathology of the University of Witwatersrand. She has received numerous research grants from various institutions such as the National Health Laboratories Research Trust (NHLSRT), Poliomyelitis Research Foundation (PRF), NRF, Iris-Ellen Hoges Research grant and EMBO travel grant. She has also been awarded several scholarships from both national and international bodies such as the NRF Innovative PhD Scholarship 2015 and 2017, PRF PhD Scholarship 2016 and the OWSD Postgraduate Training Fellowship 2015. She is a member of the Organisation for Women in Science for the Developing World (OWSD), OWSD-SA and Golden Key International Honour Society. She is currently pursuing a PhD within the Department of Chemical Pathology at the Faculty of Health Sciences of the University of Witwatersrand, under the supervision of Prof Nigel John Crowther and Prof Penny Moore, who are internationally recognised researchers in the field of Non-communicable Diseases and HIV research respectively. Her PhD project seeks to investigate the effect of HIV viral proteins on endothelial function in the Black South African HIV-infected population.



Koleka Misana is an Associate Professor and Head of the Department of Medical Microbiology at the Nelson R Mandela School of Medicine and Inkosi Albert Luthuli Hospital Academic Complex of the University of KwaZulu-Natal and the National Health Laboratory Services. Koleka has been among South Africa's leading scientists in HIV pathogenesis and prevention research and participated in seminal studies that have revealed how the body responds in acute HIV infection. She is a widely respected researcher and is currently working in the field of Medical Microbiology; her research focus is mainly on sexually transmitted infections and tuberculosis. With KwaZulu-Natal province as the epicenter for both TB (including DR-TB) and HIV, Prof Koleka's group is exploring newer diagnostic and susceptibility testing methods for Mycobacterium tuberculosis as well as understanding mechanisms of drug resistance. She has set up a molecular diagnostic laboratory for STIs and is in the process of establishing a unit for genital microbiome research. Amongst many other national commitments, she currently sits on the recently established Ministerial Advisory Committee on Antimicrobial Resistance.



Thumbi Ndung'u is an Investigator and Max Planck Research Group Leader at the Africa Health Research Institute (AHRI) in Durban, South Africa. He is Professor and Victor Daitz Chair in HIV/TB Research and Director of the HIV Pathogenesis Programme (HPP) at the Nelson R Mandela School of Medicine, University of KwaZulu-Natal. He holds the South African Research Chair in Systems Biology of HIV/AIDS. He is an Adjunct Professor of Immunology and Infectious Diseases at the Harvard TH Chan School of Public Health. He is the Programme Director of the Sub-Saharan African Network for TB/HIV Research Excellence (SANTHE), a research and capacity building initiative funded by the Wellcome Trust. He graduated with a Bachelor of Veterinary Medicine degree from the University of Nairobi, Kenya, and obtained a PhD in Biological Sciences in Public Health from Harvard University, United States. He was a Postdoctoral Fellow in Virology at Harvard Medical School. He is on the advisory board of the Global Health and Vaccination Research Programme (GLOBVAC), The Research Council of Norway, and is a member of the External Advisory Board of the HIV Vaccine Trials Network (HVTN). His research interests are host-pathogen interactions, particularly immune mechanisms of HIV and TB control. He has co-authored numerous manuscripts in peer-reviewed journals. He has received grant funding from the South African National Research Foundation, the National Institutes of Health, the Howard Hughes Medical Institute and the Wellcome Trust among others. He is leading a multidisciplinary team of researchers working in the fields of HIV and TB immunopathogenesis, vaccine development and immune-based HIV functional cure strategies. He has special interest in capacity building for biomedical research in Africa.



Oladoyin Odubanjo is the Executive Secretary of the Nigerian Academy of Science (NAS). He is also the Chairman of Lagos chapter of the Association of Public Health Physicians of Nigeria (APHPN). Oladoyin is an Adviser to the Centre for Palliative Care Nigeria (CPCN) and also the Chairman of the African chapter of the International Network for Government Science Advice (INGSA). Before working for the Nigerian Academy of Science, she worked as a physician for the Nigerian government. He worked at various public health facilities in both rural and urban areas and, at a point, was in charge of a general hospital with additional supervision of two primary health care facilities. He led the APHPN Lagos team that worked at/with the Ebola Emergency Operations Centre in the control of the 2014 Ebola outbreak in Nigeria. He has also led the association to collaborate closely with the Lagos State Ministry of Health in ensuring evidence-informed policymaking including recently determining the prevalence of Hepatitis B and C in Lagos for the purpose of formulating appropriate intervention policies.



Olatunde Olayanju grew up in Lagos Nigeria. He had his medical training at the University of Ibadan, Nigeria where he obtained his MBBS degree in October 2006. He also acquired a Masters (MSc) degree in Chemical Pathology in the same university in January 2013. He enrolled for residency training at the University College Hospital, Ibadan, Nigeria in July 2013 in the department of Chemical Pathology where he became a senior registrar before taking a study leave to pursue a PhD degree at UCT. Tunde, as he is popularly called started his medical career with Medicins Sans Frontieres (MSF)-Spain, Nigeria mission where he served in different capacities. As a medical officer he was providing out-patient services to hundreds of people, and later in the mobile clinic taking health care to the creeks and swampy terrains of the Niger-Delta region of Nigeria. He later joined the emergency response unit attending to disease outbreaks and internally displaced people (IDP) predominantly in the northern part of Nigeria. He became assistant medical coordinator for the mission before he proceeded to pursue higher medical degrees. He is currently doing a PhD at the University of Cape Town, South Africa with a study focus on drug resistant tuberculosis.



Aina Kehinde Oluwasegun is a young clinical virology researcher. He obtained his Bachelors and Masters degrees at the University of Ilorin in the field of Medical Microbiology and Parasitology (Virology Major). Based on his work on West Nile, Hepatitis and Dengue virus, he was awarded a Deutscher Akademischer Austauschdienst (DAAD) grant to validate his theoretical and scientific hands-on at the Medizinische Hochschule Hannover/ Twincore, Germany. He has won notable travel grants including the Volkswagen Stiftung by the Volkswagen foundation. He hopes to pursue his PhD in the field of Clinical virology. His research interests include Re-emerging Infectious disease surveillance, Hepatitis Virus, Chronic cancer and inflammatory signatures, Epidemiology and CrisprCas 9 system.



Jude Przyborski studied Human Sciences at University College London where he first gained an interest in tropical disease and parasitology. He carried out his PhD work at the Department of Parasitology at the University of Heidelberg Medical School, Germany. Following being awarded his PhD on how malaria parasites renovate their host cell in 2004, Jude was recruited as a group leader to the University of Marburg, Germany, where he completed his Habilitation in 2011 and was awarded an Adjunct Professorship in 2013. Here he continued his studies on how malaria parasites remodel the host erythrocyte, with a particular onus on the role of molecular chaperones. In recognition of his work, in 2012 he was awarded the Rudolphi Medal of the German Society for Parasitology and was a visiting lecturer at the University of Zululand, South Africa. Between 2015 and 2017 Jude was Professor of Parasitology at the University of Marburg. In 2017, Jude was awarded a Heisenberg Fellowship to enable his group to return to the Department of Parasitology in Heidelberg. He has published over 60 articles on the cell biology of Apicomplexan parasites and acts as peer reviewer for numerous national and international funding agencies. His research still concentrates on the interaction of malaria parasites with their host cell.



Kristina Roesel was born and raised in Germany where she later obtained a Doctor of Veterinary Medicine (DVM) and a PhD of Biomedical Sciences at Freie Universität Berlin (FUB). She is currently appointed post-doctoral scientist in the Animal and Human Health program at the International Livestock Research Institute (ILRI), based in Kenya, and joined ILRI as a graduate fellow during the final synthesis activities of the German Federal Ministry for Economic Cooperation and Development (BMZ)/Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) funded, ILRI-led Safe Food, Fair Food project in 2011. This project was one of the first investigating foodborne diseases in informal markets of sub-Saharan Africa using risk-based approaches and introducing participatory methods to food safety risk assessment. From 2012 to 2016 she was jointly appointed by Freie Universität Berlin (FUB) as a research fellow to complete her PhD on pig parasites in Uganda and by ILRI as the coordinator of the second phase of the Safe Food, Fair Food project. Prior to her veterinary studies she obtained a degree as a foreign language correspondent in English and French but then started to travel Africa. Kristina volunteered in forest conservation in Malawi using participatory methods in tackling the human-elephant conflict, and later as a veterinary student she worked as a research assistant at the Institute for Parasitology and Tropical Veterinary Medicine at FUB, supporting field work on emerging tropical vector-borne livestock diseases in Europe and parasitological surveys in West Africa.



David Serwadda has more than 23 year's experience working in the field of evaluating population based HIV intervention, care and treatment of AIDS. David is a Professor, Infectious Disease in the Department of Disease Control & Environmental Health, Makerere University School of Public Health. He was the former Dean of the School for seven years and is currently Board Chair, Rakai Health Sciences Program (RHSP) after working as Executive Director of RHSP for the last 18 years. In this role he was involved in the design, implementation and analysis of population based HIV intervention in a rural district in Rakai, Uganda. He serves on a number of drug safety monitoring boards and clinical trial boards. As a member of the Wellcome Trust Funding Committee and a Board Member of Health Systems Trust, he was commissioner of the landmark publication by Lancet on Health Professionals for a New Century; Transforming Education to Strengthen Health Systems in an Interdependent world, 2010 and co-chair of the Institute of Medicine Report 2010. David received his medical degree, MBChB and Masters degree in Internal Medicine, MMed, from Makerere University and an MPH and Honorary Doctorate from Johns Hopkins Bloomberg School of Public Health. He has been inducted as a member of the Johns Hopkins University Society of Scholars and also a member of Member of the Institute of Medicine, Washington.



Gayle Sherman is a Professor in the Department of Paediatrics and Child Health, University of the Witwatersrand and Senior Pathologist in the Centre for HIV and STIs, National Institute for Communicable Diseases. She is a clinical Paediatric Haematologist who works in Prevention of Mother to Child Transmission and Early Infant Diagnosis of HIV. Her current focus is on longitudinal cohort monitoring of paediatric diagnosis and management of HIV using the NHLS laboratory database.



Alex Sigal's core research direction is investigating persistence of ongoing infection in HIV and TB. Alex's initial contribution in this field was with David Baltimore at Caltech, where he discovered that cell-to-cell spread of HIV is a persistence mechanism in the face of antiretroviral drugs (Sigal et al., Nature, 2011). In contrast to HIV infection, where viral rebound invariably occurs after the cessation of therapy, TB infection may persist in a quiescent state throughout the lifetime of the individual without either clinical symptoms or disease transmission. His TB program focuses on the question of what factors determine the tipping point of TB to active disease. Using time-lapse microscopy, his laboratory observed that Mycobacterium tuberculosis (Mtb) grows most robustly when it causes serial killing of macrophages. Serial killing is initiated when a human macrophage internalizes a clump of bacilli which causes its death by necrosis. Upon death, Mtb rapidly grows in the dead cell, with a doubling time faster than either in the extracellular environment or in live cells (where growth is minimal). The next macrophage to internalize the Mtb, this time encased in a dead cell, faces a larger Mtb clump and dies with a higher frequency. The new dead cell now provides fuel for the next round of bacterial growth and bait for the next macrophage.



Izukanji Sikazwe is an infectious disease physician, HIV program expert, and clinical researcher whose work has been funded by the US National Institutes of Health, US Centers for Disease Control and Prevention, the Bill and Melinda Gates Foundation, and the World Health Organization. She has served as the Center for Infectious Disease Research in Zambia (CIDRZ) CEO since January 2017. Prior to joining CIDRZ in 2013, she served as an HIV Technical and Policy expert within the University of Maryland program in Zambia, and was seconded for two years to provide technical assistance within the National Antiretroviral Treatment (ART) Program of Zambia. She is an active member of multiple government Technical Working Groups, a valued mentor and educator of medical trainees and Master-level students at the UNZA School of Medicine, and practices clinical medicine at the Adult Infectious Disease Centre of Excellence at the University Teaching Hospital. She graduated with a MBChB degree from the University of Zambia, School of Medicine. Izukanji completed Internal Medicine residency and Infectious Disease fellowship at the Good Samaritan Hospital in Baltimore and the University of Maryland respectively, and holds a Master of Public Health degree from Michigan State University.



Joseph Tchamgoue is a researcher at the Department of Chemistry, Higher Teacher Training College-University of Yaounde I. His research focuses on the isolation, characterization, and quantification of lead bioactive compounds from Cameroonian medicinal plants as well as the formulation of herbal drugs from plants' active extracts. He is a final year Ph.D. student at the Department of Organic Chemistry of the University of Yaoundé I, where he carried out his research work under the direction of Prof. Kouam Fogue Simeon and Prof. Tchouankeu Jean Claude. A fellow of the TWAS-ICCBS and AGNES research grants, he has also taken part to international training at the University of Addis Ababa, University of Technology Malaysia, University of Karachi, University of Surrey and the University of Helsinki. So far, Mr. Tchamgoue has presented his research results at conferences and has co-authored peer-reviewed papers. He earned a prize from the Falling Walls Lab, Cameroon for his research work on *Pseudarthria hookeri*.



Marietjie Venter is a specialist in emerging zoonotic and respiratory viruses with a special interest in One Health. She obtained her PhD (Medical Virology)(Wits) on the Respiratory Syncytial Virus in 2003 and received post-doctoral training on West Nile Virus from the National Institute for Allergy and Infectious Diseases, USA. She has worked on respiratory and zoonotic arboviruses since 1999. First as a medical scientist at the National Institute for Communicable Diseases (NICD) before launching the Zoonoses Research Program, Department Medical Virology, UP where she worked in joint appointments with the NHLS and NICD. She was co-director of the Centre for Respiratory Diseases and Meningitis, NICD and National Influenza Centre Director before joining the US-CDC as One Health and Emerging Disease Program director for the Global Disease Detection Centre, South Africa. In 2016 she accepted a full time position as full professor (Medical Virology) where she heads the emerging arbo & respiratory virus research program in the Centre for Viral Zoonoses. She is advisor to World Health Organization on respiratory syncytial virus, influenza pandemic preparedness and serve on the Scientific Advisory board for the Global One Health Platform and is the African contact for International One Health day.



Delfino Vubil holds a BSc degree in Biology and MSc in Cellular and Molecular Biology. He is currently attending doctoral studies in Medicine and Translational Research at the University of Barcelona, Spain. Since 2009 working as training biomedical researcher for Manhica Health research Centre (Centro de Investigação em Saúde de Manhica – CISM) in Maputo, Mozambique. Delfino's experience in infectious disease research is on clinical microbiology, molecular diagnostic and epidemiology of diarrheal diseases and invasive bacterial infections.



Kathrin Wittstein studied chemistry at the Technical University of Dortmund, Germany. After her graduation, she joined the department of chemical biology at the Max-Planck-Institute of Molecular Physiology in Dortmund and received her PhD in organic chemistry under the supervision of Prof Dr Herbert Waldmann. During her doctorate she focused on the development of synthetic methods for natural product-inspired compounds. In 2013, she started to specialize in natural product chemistry at the Helmholtz Centre for Infection Research in Braunschweig, Germany. As a scientist in the department of microbial drugs she is particularly interested in the identification and characterization of new bioactive compounds from fungi. Since several years, she is involved in academic and industrial cooperation projects in the area of drug discovery.



Charles Shey Wiysonge is the Director of the South African Cochrane Centre at the South African Medical Research Council. Cochrane South Africa is the only Cochrane Centre in Africa and one of only 15 in the world. Charles is also a Professor of Epidemiology at both Stellenbosch University and the University of Cape Town. He is a member of the Academy of Science of South Africa and sit on multiple scientific and policy advisory bodies on research, vaccination, and evidence-based policy in Africa and globally. Charles graduated from medical school at the University of Yaoundé I (Cameroon) in 1995 and obtained an MPhil (Epidemiology) from the University of Cambridge (UK) in 2000 and a PhD (Vaccinology) from the University of Cape Town (SA) in 2012.

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