

## **Meeting the Challenge of COVID-19 in Africa: A Virtual Symposium**

9-11 a.m. (EDT), 3-5 p.m. (CAT), 1-4 September 2020

Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, and the Center for Pandemic Research, Institute for Social and Economic Research and Policy, Columbia University, New York City.

Co-sponsored by the Programs in Global Health, Vagelos College of Physicians and Surgeons, Columbia University, the Stanley and Marion Bergman Family Charitable Fund and the Sanlam Foundation.

### **Symposium Overview**

The purpose of the symposium is to identify the key challenges of dealing with a delayed but explosive unfolding of the COVID-19 pandemic in parts of Africa, and to determine best practice solutions in the interest of (1) gaining of public trust in adhering to the health imperatives of social distancing and the use of approved therapies and vaccines to manage and contain outbreaks; (2) implementing the most dynamic and effective use of testing, tracing, and isolation as public health tools during a pandemic; and (3) scaling up of SARS-CoV-2 vaccine acquisition and distribution platforms that will serve all African countries for mass immunization. A pre-conference session on the biosafety and biosecurity aspects of the SARS-CoV-2 pathogen will be held on 1 September.

## **Tuesday, September 1: Pre-meeting on the Biosafety and Biosecurity Aspects of SARS-CoV2**

Because of the COVID-19 pandemic, laboratory (research and diagnostic) capacity has increased globally, as have the risks related to biosafety and biosecurity, those especially related to what is known as dual-use research and development. That dual-use research may result in misuse is a long-standing ethical concern amongst scientists. Issues include not only research and public health, but also security, scientific publishing, public communications, biotechnology, ethics and wider societal issues. In this session, we will discuss some of the dual-use concerns as related to the current COVID-19 pandemic.

### **Moderator:**



**Wilmot James** is a Senior Research Scholar at the Institute for Social and Economic Research and Policy (ISERP), College of Arts and Sciences, Columbia University. An academic by background with a Ph.D. from the University of Wisconsin at Madison, he was previously a Member of Parliament (South Africa) and opposition spokesperson on health. Wilmot is the author and/or editor of 17 books that include the policy-oriented *Vital Signs: Health Security in South Africa* (2020), a set of essays on the public understanding of science titled *Nature's Gifts: Why we are the way we are* (2010), a coedited book *Biotechnology and Health: South Africa's aspirations in health-related biotechnology* (2007) and a co-edited collection of Nelson Mandela's presidential speeches *Nelson Mandela In His Own Words* (2003), the latter having the distinction of containing forwards by Bill Clinton and Kofi Annan and given to the late Nelson Mandela on his 85th birthday. Dr. James served on the Board of Trustees of the Ford Foundation between 1996-2008. He has teaching experience from the University of the Western Cape and University of Cape Town and post-doctoral and visiting professorial experience from Yale University, Indiana University, Edinburgh University and the California Institute of Technology. At Columbia University, he teaches a course on catastrophic risks, convenes high-level meetings on planetary threats and serves as an Associate Director in the Program in Vaccine Education at the Vagelos College of Physicians and Surgeons. Wilmot serves as a senior consultant in biosecurity to the Washington DC based Nuclear Threat Initiative.

### **Keynote Speaker:**



**Dr Talkmore Maruta** is a Senior Biosafety and Biosecurity Officer seconded to Africa Centres for Disease Control at their Regional Collaborating Centre in Lusaka Zambia for the Regional Biosafety and Biosecurity program. Dr Maruta also helps Africa CDC advance its Laboratory Systems Strengthening, Disease Surveillance, and Emergency Preparedness and Response programs in the Southern Africa region and beyond. He is a Public Health Medical Laboratory Scientist who holds a BSc (Hons) Degree in Medical Laboratory Sciences, and a Masters and PhD in Public Health.

## Panelists:



**Professor Iqbal Parker** is Emeritus Professor of Medical Biochemistry and Structural Biology at the University of Cape Town and founding Director of the ICGEB Cape Town Component. He is a fellow of the Academy of Science of South Africa, served as General Secretary (2000-2004), Vice President (2010-2016) and currently chairs the Biosafety and Biosecurity Committee. He is a fellow of The World Academy of Sciences (TWAS) and Vice President of the African Academy of Sciences.



**Andrew Hebbeler** is senior director and lead scientist for global biological policy and programs at the Nuclear Threat Initiative. He previously served as deputy director of the U.S. Department of State's Office of Science and Technology Cooperation and as a senior science, technology, and innovation adviser to the Secretary of State. He also led U.S. cooperative threat reduction activities, including expansion of Nunn-Lugar cooperative threat reduction programs into Africa. From 2013-2015, he was assistant director for biological and chemical threats at the Office of Science and Technology Policy in the Obama Administration. He is a microbiologist by training and received his doctorate from the University of Maryland, Baltimore.



**Natasha Griffith** is the Associate Director of Operations, High Containment Laboratories at Georgia State University (GSU). In her current role, she oversees design and construction of a new BSL4 research facility and leads a multidisciplinary team to support safe operations of all high containment facilities at GSU.

Before joining GSU, Natasha was the Quality and Safety Systems Branch Chief in the Division of Laboratory Systems (DLS) at the Center for Surveillance, Epidemiology, and Laboratory Services (**CSELS**) at the Centers for Disease Control and Prevention (CDC). In her role, she led quality and safety staff to support the development and adoption of standards, guidelines, recommendations, and tools for improved quality and safety in clinical and public health laboratories.

Ms. Griffith earned her Master of Science degree in Microbial Pathogenesis and a Bachelor of Science degree in Microbiology, Immunology and Molecular Genetics from UCLA. She is currently working on a PhD in Environmental Health Sciences at the UCLA School of Public Health.

## Wednesday, September 2: The Challenge of Social Distancing in Africa and the Developing World

Reducing the rate of infection ( $R_0$ ) in a population is central to health systems coping with surges in patients requiring care in infectious pandemics. The most tried and tested method of doing this is to secure adherence to social distancing. Achieving effective social distancing however requires that communities have the resources that make this possible.

### Moderator:



**Ames Dhai, PHD, LLM, FCOG, MBCHB, PGDipIntResEthics**, is the founder and former Director of the Steve Biko Centre for Bioethics, University of the Witwatersrand, Johannesburg. She is Visiting Professor of Bioethics at the WITS School of Clinical Medicine, and Honorary Professor at the University of Swansea, Wales. She is Chairperson of the UNESCO National Bioethics Committee (South Africa) and the SA Medical Research Council Bioethics Advisory Panel. She is Vice-Chairperson of the UNESCO International Bioethics Committee.

### Keynote Speaker:



**Dr. John Nkengasong** is director of African Centres for Disease Control and Prevention. Until recently he was the Associate Director for Laboratory Science and Chief of the International Laboratory Branch at the Division of HIV & TB, Center for Global Health, US Centers for Disease Control and Prevention (CDC), Atlanta. In addition, Dr. Nkengasong co-chairs the US President's Emergency Plan for AIDS Relief's (PEPFAR) Laboratory Technical Working Group and serves as the founding chair of Board of Directors for the African Society for Laboratory Medicine.

He received a Master's in Tropical Biomedical Science at the Institute of Tropical Medicine in Antwerp, Belgium, and another Master's Degree in Medical and Pharmaceutical Sciences at the University of Brussels School of Medicine and a Doctorate in Medical Sciences (Virology) from the University of Brussels, Belgium. Between 1993-95 he was Chief of the Virology and the WHO Collaborating Center on HIV diagnostics, at the Department of Microbiology, Institute of Tropical Medicine, Antwerp, Belgium.

## Panelists:



**Amanda McClelland** is the Senior Vice President of the Prevent Epidemics team at Resolve to Save Lives, an initiative of Vital Strategies. Amanda has more than 14 years of experience in global health, working in response to natural disasters, conflict and public health emergencies. With a focus on local prevention and response, Amanda has spent much of the last decade working with frontline health workers and communities on prevention, early detection and response to health crises. Now, as part of the Resolve to Save Lives mission, Amanda focuses on building technical, political and financial support for preparedness efforts, including effective IHR that improve a country's ability to find, stop and prevent epidemics.



**Dr. Chikwe Ihekweazu** is the Director General of the Nigeria Centre for Disease Control (NCDC). Dr Ihekweazu trained as an infectious disease epidemiologist and has over 20 years' experience working in senior public health and leadership positions in several National Public Health Institutes including the South African National Institute for Communicable Diseases (NICD). Dr Ihekweazu has led several short-term engagements for WHO, mainly in response to major infectious disease outbreaks around the world.



**Dr Greg Mills** heads the Johannesburg-based Brenthurst Foundation, established in 2005 by the Oppenheimer family to strengthen African economic performance. He holds degrees from the Universities of Cape Town and Lancaster, and was the National Director of the SA Institute of International Affairs from 1996-2005. He has directed numerous reform projects in African presidencies (including in 2017 for example with the governments of Ghana, Lagos State, Lesotho and Mozambique, and in 2018 with the SA and Mozambican governments), sat on the Danish Africa Commission and on the African Development Bank's high-level panel on fragile states, and served four deployments to Afghanistan with the British Army as the adviser to the commander.



**Dr. Yanis Ben Amor** is the Executive Director of the Center for Sustainable Development, headed by Professor Jeffrey Sachs, at the Earth Institute at Columbia University. At SIPA, Dr. Ben Amor is teaching the Fall semester course: “Introduction to Global Health”.

Dr. Ben Amor is also the Director of the Tropical Laboratory Initiative, a program launched by Columbia to promote access to diagnostic services to patients in remote rural areas of sub-Saharan Africa. He is a molecular biologist and technical advisor responsible for developing effective infectious diseases control programs as well as designing and implementing comprehensive laboratory infrastructures and services. He has joined Professor Sachs’ team in 2004.

Dr. Ben Amor has a PhD in Molecular Biology, and a Masters in the same discipline from the Ecole Nationale Supérieure Agronomique de Rennes (Rennes, France). He has published widely in the areas of tuberculosis diagnosis, global health, and prevention. He is also regularly a speaker on behalf of Columbia University and the Earth Institute at various conferences worldwide.

## Thursday, September 3: The Limits of Testing, Tracing and Treatment

The use of frequent testing, followed by active contact tracing and early treatment of infected patients is an effective form of limiting the spread of an infectious agent. In order for this strategy to work, all aspects of the system must be functioning effectively. The current experience in the SARS-COV-2 pandemic suggests that achieving this can be very difficult.

### Moderator:



**Professor Martin Veller** is Dean of the Faculty of Health Sciences at the University of the Witwatersrand and a Professor in the University's Department of Surgery. He is an expert in Vascular Surgery with extensive academic, research and teaching experience. Professor Veller also serves on the Board of Directors of the Wits Donald Gordon Medical Centre. He has trained at the University of Witwatersrand and at St. Mary's hospital at London's Imperial College.

### Keynote Speaker:



**Wafaa El-Sadr, MD, MPH, MPA**, is the founder and director of ICAP at Columbia University, University Professor of Epidemiology and Medicine and Mathilde Krim-amfAR Professor of Global Health at Columbia University.

Through ICAP at Columbia University, the Center she founded and directs, she leads a team that designs and implements programs for research, education, training and practice in more than 30 countries around the world. Her focus is on confronting major public health challenges including HIV, tuberculosis, malaria, maternal and child health, non-communicable diseases among others in partnership with in-country stakeholders.

Dr. El-Sadr received her medical degree from Cairo University, a master's in public health (epidemiology) from Columbia's Mailman School of Public Health and a master's in public administration from Harvard University's Kennedy School of Government. She was named as McArthur fellow in 2008, is a member of the National Academy of Medicine and a fellow of the African Academy of Sciences.

## Panelists:



Medical Doctor and holder of PhD in Public Health from University College Dublin in Ireland, **Professor Victor M. Mukonka** is the Director of the Zambia National Public Health Institute and interim coordinator of the Southern Africa Regional Collaborating Center for the Africa CDC. A public health practitioner with over 30 years' experience in management at all levels of the health system in Zambia. He has served on various committees including a variety of technical, steering committees, working groups as well as sat on over 14 national boards. Prof. Mukonka is well known for his strategic visionary and creative

attributes whose good understanding of Africa's health problems and challenges has positively impacted not only Zambia's but Africa's health agenda. He is a good team player and has diplomatic skills in engaging partners and donors soliciting for their buy-in support and investment.



**Glenda Gray, MBBCH, FCPaed(SA), DSc (honoris causa)**, is the President & CEO of the South African Medical Research Council . She is a Research Professor of Paediatrics at the University of the Witwatersrand, and a director at the Perinatal HIV Research Unit in Soweto. Trained as a paediatrician, she was awarded a Fogarty Training Fellowship at Columbia University in 1999 and also completed an intensive program on clinical epidemiology at Cornell University. Based in South Africa, she is the Co-PI of the HVTN and Director of HVTN Africa Programs. She is a member of the Vaccine and Infectious Disease Division at the Fred Hutch. She has expertise in the field of mother to child transmission of HIV, adolescent HIV prevention and treatment, and HIV

vaccine and microbicide research.

Glenda became involved in HIV Vaccine research in 2000, and led the first clinical trials involving HIV vaccines in the Republic of South Africa (RSA). She was the Protocol Chair for the first phase 2B HIV vaccine trial to be conducted in sub-Saharan Africa, and was in charge of the early clinical development of South Africa's first two candidate DNA and MVA HIV vaccines, which have been tested in both the USA and RSA under FDA and MCC regulations. She was the International Vice Chair for Vaccines for the NIH-funded IMPAACT network until 2010. She has published extensively in the field of HIV.



**Jennifer Dohrn, DNP, CNM, FAAN**, is an Associate Professor and Assistant Dean of the Office of Global Initiatives and its PAHO/WHO Collaborating Center for Advanced Practice Nursing at Columbia University School of Nursing. She has worked in Sub-Saharan African countries since 2003, helping to expand the role of nurses and midwives in HIV pandemic response, and nursing response in Sierra Leone and Liberia to Ebola. She is currently conducting oral histories of nurses in New York City who are on the frontlines of the COVID-19 pandemic. She has integrated her global experiences in pandemic response and complex humanitarian emergencies into two decades of teaching in midwifery and global health equity.



**Dr. Meredith McMorrow** is the Influenza Program Director for the US Centers for Disease Control and Prevention in Pretoria, South Africa. She has worked at CDC since 2004 in international public health programs including the Global Immunization Division, Malaria Branch, and Influenza Division. In South Africa she partners with the National Department of Health and National Institute for Communicable Diseases to conduct policy-relevant research in influenza and other respiratory viruses, including SARS-CoV-2.

## Friday, September 4: Public Trust and the Delivery of COVID-19 Vaccines

The effectiveness of a vaccine in controlling the COVID-19 pandemic is dependent on its efficacy and the willingness and ability of most of the population to be vaccinated, thus achieving herd immunity. Achieving this means that communities must trust this intervention.

### Introductory Remarks:



**Murugi Ndirangu** is the Director of the Columbia Global Centers | Nairobi (CGC Nairobi). Dr. Ndirangu is an expert in public health, policy, and education. She was previously an Associate Professor in the Department of Nutrition and Health Care Management at Appalachian State University, North Carolina. Her research focuses on the health of vulnerable populations and the efficacy of public health nutrition interventions in domestic and international settings. She holds a Ph.D. in Nutrition and Food Systems from the University of Southern Mississippi, a Master of Educational Psychology, and a Bachelor of Education from Kenyatta University in Nairobi, Kenya. CGC Nairobi, one of nine Global Centers established by Columbia University to facilitate learning and research opportunities for Columbia University students and faculty. The center also enables Columbia students

and faculty to work collaboratively with academic institutions, governments, private sectors, NGOs, multinationals, and others in the Eastern and Southern Africa region to address critical global issues as equal partners.

### Moderator:



**Lawrence R. Stanberry, MD, PhD**, is the Associate Dean for International Programs and the Director of the Programs in Global Health at Columbia University's Vagelos College of Physicians and Surgeons. He is a pediatrician and infectious diseases expert. His work has focused on viral diseases and drug and vaccine development. He has served on numerous advisory boards and review panels including serving as the chair of the Vaccine Study Section and the Pediatrics Review Panel at the National Institutes of Health. He has received research funding from the National Institutes of Health, the Centers for Disease Control and Prevention, numerous vaccine, pharmaceutical and biotech companies, and the Bill and Melinda Gates Foundation. Dr. Stanberry has authored over 200 scientific articles and chapters and authored or edited

seven books including, "Vaccines for Biodefense and Emerging and Neglected Diseases, London, Elsevier (2009). "Understanding Modern Vaccines" Elsevier (2011), and "Viral Infections of Humans: Epidemiology and Control," (5th edition 2014, 6th edition in preparation). His current work focuses on the preparedness of children's hospitals globally to prevent, detect, and respond to disasters and infections of pandemic potential.

## Keynote Speaker:



**Shabir A. Madhi, M.B.B.C.H. (Wits), FCPaed(SA), Ph.D,** is Professor of Vaccinology at the University of the Witwatersrand, Johannesburg, South Africa; and co-founder and co-Director of the African Leadership Initiative for Vaccinology Expertise (ALIVE). He currently also holds the positions of Director of the South African Medical Research Council Vaccines and Infectious Diseases Analytical Research Unit (VIDA) and is Research Chair in Vaccine Preventable Diseases of Department of Science and Technology/National Research Foundation. He is the National Principal Investigator and Protocol Co-Chair of the first two COVID-19 vaccine studies being undertaken in South Africa.

## Panelists:



**Professor Helen Rees** is Executive Director of the Wits Reproductive Health and HIV Institute at the University of the Witwatersrand in Johannesburg where she is also a Personal Professor in Obstetrics and Gynaecology, and Co-Director of the Wits African Local Initiative for Vaccinology Expertise (ALIVE). She is an Honorary Professor at the London School of Hygiene and Tropical Medicine in the Faculty of Tropical and Infectious Diseases, an Honorary Fellow at Murray Edwards College, Cambridge University, and an alumna of Harvard Business School. Helen is internationally renowned for her research and policy work in HIV, vaccines, reproductive health and drug regulation.



**Stavros Nicolaou** is the Aspen Pharmacare Group's Senior Executive responsible for Strategic Trade Development. Previously he was CEO of Aspen's Export Business. Aspen is Africa's largest pharmaceutical manufacturer and a now world leader in Anaesthetics and injectable anti-coagulants. Aspen is one of South Africa's most globalised multinational companies with a presence in over 50 geographies globally, with 26 manufacturing facilities across 6 continents. He was instrumental in introducing the first generic ARV's on the African Continent developed by Aspen, which has gone on to save hundreds of thousands of lives in South Africa and on the African Continent.



**Scott F. Dowell, MD, MPH**, is a pediatric infectious disease specialist by training, leads the Covid-19 response for the Bill and Melinda Gates Foundation. He joined the foundation after 21 years at the U.S. Centers for Disease Control and Prevention (CDC), where he studied viral and bacterial pneumonia, and responded to outbreaks of Ebola and other pathogens. He established and directed the International Emerging Infections Program in Thailand, a collaboration that received accolades from both the Thai and U.S. governments for its prominent role in responding to the SARS crisis, and for its leadership in defining the response to avian influenza A (H5N1) in Southeast Asia. He led CDC's response to the earthquake and cholera epidemic in Haiti, helping to rebuild the public health infrastructure and contributing to the saving of an estimated 7,000 lives. Dr. Dowell served as the Director of the World

Health Organization Collaborating Center for International Health Regulations and the Division of Global Disease Detection and Emergency Response, and established the agency's Global Health Security Agenda. In 2014, he retired from the US Public Health Service at the rank of Rear Admiral and Assistant Surgeon General. Dr. Dowell has co-authored more than 170 publications, holds an Uber rating of 4.89, and has a special interest in targeted reductions in childhood mortality.



As a member of the Executive Committee and the Health of Healthcare at the World Economic Forum and a former executive at Philips, **Arnaud Bernaert** has launched defining public private coalitions in fields such as epidemics preparedness, value-based healthcare, precision medicine, access to primary care, payment reforms, healthcare IT. On such matters, he addressed as a keynote speaker the participants of the most prestigious global healthcare gatherings in Davos, UNGA, Forbes conferences, World Health Assembly week, World Health summit and many other conferences.