

# **Guideline Development Group for clinical management and diagnosis of dengue, chikungunya, Zika and yellow fever**

**Biographies**

**23 December 2024**

# Overview

For the development of the guidelines for the clinical management and diagnosis of dengue, chikungunya, Zika, and yellow fever, a Guideline Development Group (GDG) comprising individuals with broad expertise spanning multiple specialties and regions was convened. This group includes patient panel members.

The technical unit collected and managed declarations of interests (DOIs), which were declared at inception and at each meeting.

WHO wishes to acknowledge all the experts who contributed to the GDG and to thank them for their commitment and support in achieving the evidence-based recommendations for the care of patients with dengue, chikungunya, Zika, and yellow fever.

## **TajEldin Mohammedein Abdallah**



Prof TajEldin Mohammedein Abdallah was born in New Halfa, Sudan, in January 1972. He graduated from the Faculty of Medicine at the University of Kassala, Sudan, in December 2000. He holds an MD in Internal Medicine from the Sudan Medical Specialization Board, obtained in 2008. He joined the University of Kassala, Faculty of Medicine, as an Assistant Professor in May 2008 and achieved a professorship in Internal Medicine in August 2018. In 2016, he earned a Higher Diploma in Research Methodology from Al Neelain University, Sudan, and in 2020, he received an MSc in Medical Education from Gezira University, Sudan. In 2021, he was awarded a Fellowship of the Royal College of Physicians, Edinburgh (FRCPE).

Professor Abdallah has 16 years of experience teaching medical students at the University of Kassala, Faculty of Medicine. He has been working as a physician at Kassala Teaching Hospital since 2008 and as a consultant physician since March 2016. He has attended and participated in various national and international scientific conferences and received a certificate of appreciation from WHO-Sudan for his participation in managing dengue infection in Eastern Sudan in February 2017.

He is the author of 48 scientific papers, with research interests in infectious diseases, particularly arboviral infections, malaria, leishmania, tuberculosis, and other communicable diseases.

## Ashutosh Biswas



Prof. (Dr.) Ashutosh Biswas, M.B.B.S., M.D. (Internal Medicine), FCPS (Medicine), FIMSA, PGD (Epidemiology), has been working at the All India Institute of Medical Sciences (AIIMS), New Delhi, as a Professor of Medicine & Infectious Diseases in the Department of Internal Medicine & Infectious Diseases for about 30 years. AIIMS is an autonomous institution and a premier medical institute in India, with a mandate for teaching, tertiary patient care, and clinical research for graduate and postgraduate paramedical and medical students.

Currently, he is the Executive Director & CEO of AIIMS Bhubaneswar. Before joining AIIMS Bhubaneswar, he was the Director and Vice-Chancellor of Indira Gandhi Institute of Medical Sciences (IGIMS), Patna. As a clinician (physician) and an expert in infectious diseases, his special area of interest has always been vector-borne diseases. He has been actively involved with SEAR WHO for various activities for over 20 years. In 2001, he was invited by WHO to participate in clinical training on the management of DF/DHF at Batam Island, Indonesia. Subsequently, he participated in various WHO programs, including clinical training and guideline development for different countries such as Sri Lanka, Maldives, Thailand, Malaysia, Indonesia, India, Bhutan, Timor-Leste, and PAHO.

He is actively involved with the Ministry of Health and Family Welfare (MoHFW), Government of India, in preparing guidelines for dengue, chikungunya, malaria, Zika, Nipah, influenza, and scrub typhus. He is an active member of the central outbreak investigation team of India. He was deputed by WHO for the outbreak investigation of acute febrile illness and high mortality in Timor-Leste and Bhutan. He also participated in developing PAHO guidelines for the diagnosis and clinical management of dengue and yellow fever in Brasilia, Brazil. He has published about 200 research articles in peer-reviewed national and international journals.

## Orlando Cuéllar



Dr Orlando Cuéllar is the Chief Medical Officer of the Transfusion Service at Hospital San Juan De Dios. He graduated with a degree in Medicine from Universidad Cristiana de Bolivia in January 1997 and received his national medical license from the Ministry of Education, Culture, and Sports in June 1998.

He holds multiple postgraduate qualifications, including a Master's in Public Health from Universidad NUR (October 2010), a specialization in Public Health from the Colegio Médico de Bolivia and the Society of Public Health (December 2010), a specialization in Hematology and Transfusion Immunology from Universidad Juan Misael Saracho (September 2010), a Master's in Hematology and Transfusion Medicine from Universidad Juan Misael Saracho (September 2012), and a specialization in Quality Management in Transfusion Medicine from the Colegio Médico de Bolivia and the Bolivian Medical Society of Public Health (October 2018).

Based in Santa Cruz, Bolivia, Dr. Cuéllar has extensive experience in scientific activities. He was an investigator for the XI International Dengue Course at the Pedro Kouri Institute of Tropical Medicine in 2009, focusing on validating the new classification of dengue. He collaborated on the development of the Dengue Protocol for the Autonomous Departmental Government in 2010 and was part of the team that created the second edition of the Clinical Guide for Dengue Care in the Americas in 2015. Since 2011, he has been an active member of the Technical Scientific Committee of the Autonomous Departmental Government, reviewing and analyzing clinical histories of dengue patients with unexpected outcomes.

Dr. Cuéllar is also a seasoned speaker and lecturer. Since 2010, he has been part of the team of trainers in the diagnosis and clinical management of dengue in Bolivia, participating as a speaker and lecturer at both departmental and national levels. As an active member of the Technical Scientific Committee of the Autonomous Departmental Government from 2011 to 2024, he has reviewed and analyzed over a hundred clinical histories of dengue patients with unexpected outcomes.

## Ismaël Diallo



Dr Ismaël Diallo is a Senior Lecturer in Infectious Diseases at Joseph KI-ZERBO University in Ouagadougou and a hospital practitioner at the Yalgado OUEDROAGO University Center. After obtaining his baccalaureate in 1992, he chose to study medicine. His interest in infectious diseases grew during his studies due to their prevalence, and he aspired to contribute to the fight against these diseases.

After completing his specialization studies in Dakar, he was appointed Assistant Professor of Infectious Diseases at Joseph KI-ZERBO University. He was later promoted to Assistant Master in 2017 and Associate Lecturer in 2020 after passing the CAMES competitive examination.

In addition to his clinical and teaching responsibilities, Dr. Diallo has served as the Secretary General of the Ouagadougou Regional Medical Council of the Order of Doctors of Ouagadougou. He places great importance on training, which is reflected in his involvement in the Inter-University Diploma on the management of HIV infection and, more recently, on viral hemorrhagic fevers, arboviruses, and emerging and re-emerging epidemics in Africa.

## **Cristina Domingo Carrasco**



Dr Cristina Domingo Carrasco is a Senior Scientist in the Centre for International Health Protection (ZIG) at the Robert Koch Institute, where she focuses on improving existing laboratory capacities and implementing new ones worldwide. She is a trained pharmacist with a PhD in Virology, has long-standing participation in international public health collaborations and multidisciplinary networks, and is a consultant and instructor to preparedness and response to outbreak activities for diagnosis and surveillance of emerging viral diseases in middle- and low-income countries in collaboration with WHO, the Pan American Health Organization (PAHO), and the European Centre for Disease Prevention and Control (ECDC).

Before joining ZIG, Dr Domingo worked at the Unit of Highly Pathogenic Viruses (ZBS1), where she served as Deputy to the Head of Unit and led projects focusing on the long-lasting immunity to yellow fever vaccine immunity in special groups, and the characterization and diagnosis of adverse events after yellow fever vaccination.

Dr Domingo has previously worked as public health virologist in the Program for Control and Surveillance of Imported Viral Haemorrhagic Fevers at the Spanish National Microbiology Centre at the Institute of Health Carlos III, where she carried out projects related to arbovirus diagnosis and molecular epidemiology.

## **Pillaveetil Sathyadas Indu**



Prof (Dr) Pillaveetil Sathyadas Indu works as Professor & HOD, Department of Community Medicine at Govt. Medical College, Kollam, Kerala, India. She received MBBS, MD, DPM, DPH, MPhil (Clinical Epidemiology) and PhD from the University of Kerala; DNB (Social and Preventive Medicine) from the National Board of Examinations, New Delhi; DHR Long term Research Fellowship from the University of New South Wales, Sydney, Australia and FRCP from Royal College of Physicians, London. She is member of WHO- Strategic Advisory Group of Experts Working Group on Dengue vaccines and was member of SEARO Regional Technical Advisory Group on Dengue and other arboviral infections. She was State PEID (Prevention of Epidemic and Infectious Diseases) Cell Co-coordinator, involved in control/containment activities for dengue and chikungunya and in development of guidelines for management and surveillance. She was Convener of State Resource group for Communicable Disease Surveillance, member of State Rapid Response Team, investigator in research projects by International Clinical Epidemiology Network, Indian Council of Medical Research, Department of Health Research and the WHO. She was Principal Investigator in 'Govt. of Kerala – WHO Dengue study', initiated in response to a huge dengue outbreak in 2017. She is the Editor-in-chief of the Indian Journal of Clinical Medicine and PhD guide.



## Emilie Javelle



Dr Emilie Javelle holds a medical degree (MD) in Internal Medicine and in Infectious and Tropical Diseases. She earned a Master of Research degree in Infectious and Tropical Diseases at the Arboviral Referent National Center (CNR-IRBA) in Marseille, France.

She completed her PhD in healthcare and life sciences, focusing on infectious diseases, specifically the prevention and management of infectious risks in military operations. She is affiliated with the French Armed Forces Health Services (FAFHS) at the Biomedical Research Institute of the Army (IRBA), within the infectious diseases department, parasitology and entomology unit (UPE), and the national reference centre (CNR) for malaria. She is also affiliated with the Military Hospital Laveran in Marseille, France and the University-Hospital Méditerranée Infection, Mixed Research Unit (UMR) Vecteurs Infections Tropicales et Méditerranéennes (VITROME) at Aix-Marseille University, France.

After completing her medical studies in Lyon, she became a resident in internal medicine and pursued additional specialization in infectious diseases and tropical medicine at the Military Hospital Laveran in Marseille. During this time, she was deployed overseas for military and healthcare missions during chikungunya and dengue outbreaks. She undertook technical assistance missions with the PAHO in Nicaragua and Peru during the emergence of chikungunya in 2013 and 2014. She was a member of the French working group that developed the first national recommendations on chikungunya in 2014.

Dr. Javelle has conducted literature reviews and clinical studies to better describe emerging arboviral diseases and to develop practical tools for managing cases in the field. Currently, she is an infectious diseases clinician and researcher focusing on vector-borne diseases. She also teaches arboviral diseases at the University Aix-Marseille and serves as the Director of the Marseille site for the GeoSentinel global network of the International Society of Travel Medicine, which monitors and studies travel-related illnesses.

She is the referent for arboviral diseases in the French Armed Forces and is part of the national public health working group on arboviruses (arbo-France). Additionally, she is a member of the WHO Technical Advisory Group (TAG) for Arboviruses.

## **Mikaïla Kaboré**



Dr Mikaïla Kaboré is an infectious diseases and public health specialist. Currently, he is a hospital practitioner at the Centre Hospitalier Régional de Ziniaré, located 35 km from the city of Ouagadougou.

He serves as the regional referent doctor for the management of adult HIV and antibiotic therapy. Dr Mikaïla has a strong interest in emerging and re-emerging epidemics. As a general practitioner, he participated in managing severe cases of dengue in the Emergency Department of a teaching hospital in Burkina Faso during the 2016 epidemic outbreak. In 2020, he was involved in the clinical management of COVID-19 in his country, training health workers, and conducting epidemiological surveillance through the management of travelers entering the country by air.

Dr Mikaïla is currently enhancing his skills in the management, control, and prevention of emerging and re-emerging epidemics in Africa through an interuniversity diploma from Joseph Ki-Zerbo and Paris Sorbonne Nord Universities: Interuniversity Diploma in Viral Hemorrhagic Fevers, Arboviruses, and Emerging and Re-emerging Epidemics in Africa.

Additionally, Mikaïla is a reviewer for several journals, including Case Reports in Clinical Medicine, Frontiers in Global Women's Health, Asian Journal of Case Reports in Surgery, and Revue Malienne de Maladies Infectieuses et Microbiologie

## Marta Lado



Dr Lado is a specialist in Internal Medicine and Infectious Diseases. She worked in the Spanish Public Health care system in Emergency, Internal Medicine and Infectious Diseases, until 2014 when she moved to West Africa, where she has developed most of her work in recent years. As an expert in Global Health, she has expanded her experience from first line clinical work at secondary and tertiary hospitals in Sierra Leone, as an Associate Professor School of Medicine and as Clinical Lead for King's Sierra Leone partners (KPSL), King's College, and later as Chief Medical Officer of the American NGO: Partners in Health (PIH) in Sierra Leone.

Over the past years, she has led the design, planning and implementation of a wide range of health programmes including Maternal, Neonatal, Surgical, Non-Communicable Diseases, Mental Health, Surgery, Emergency Medicine, Internal Medicine and Infectious Diseases including HIV, TB, Hepatitis B and C, Yellow fever, malaria and Neglected tropical diseases. She is an expert in Viral Haemorrhagic Fever Diseases after having worked in the latest outbreaks of Ebola, Lassa, CCHF and Marburg that have occurred on the African continent since 2014 to nowadays: e.g. Sierra Leone (2014-2016), Democratic Republic of Congo (2018-2020, 2021 and 2022) Guinea (2021), Uganda (2022-2023) etc. as an expert in Case Management for the World Health Organization (WHO).

During 2020-2022, she worked for WHO as a Clinical Expert in the Case Management team of the Emergencies team, based in Geneva (Switzerland) developing clinical guidelines, specific therapy guidelines, infrastructure support for health facilities, Oxygen country training and continuing education materials for clinical management in COVID-19, Ebola, Lassa, Marburg and Monkeypox.

Currently, she works as Cross-site Senior Clinical Health Programme Advisor with Partners In Health (PIH) in Infectious diseases, Pandemic preparedness and response and Clinical Excellence, based in Sierra Leone. She continues to collaborate with WHO and different organisations, academic institutions and ministries of health in the development of Clinical Excellence programmes (Intensive/critical Care Units, Emergency and Oxygen capacity) along with Health Emergency Preparedness and Response (pandemics and emerging infectious diseases).

## Yee-Sin Leo



Prof Yee-Sin Leo is dually accredited in Singapore as an Adult Infectious Disease Specialist and Public Health expert. She established the Singapore HIV Programme in 1995 and led teams through numerous outbreaks including multiple arboviruses (namely dengue, zika, chikungunya) outbreaks in Singapore since 1999. She served as the inaugural Executive Director of Singapore's National Centre for Infectious Diseases (NCID) from 2017 to June 2023. NCID is a full suite facility incorporating clinical care, public health, research, training, and community outreach within one building and was set up just in time to counter the COVID-19 pandemic.

Her research interests in HIV, arboviruses and emerging infections have resulted in over 400 peer-reviewed scientific papers. Her contributions have earned her numerous national awards, and she was conferred the title of Knight of the French Order of the Legion of Honour in 2022.

Currently she serves as Senior Consultant to Director-General Health's Office at the Ministry of Health and Senior Advisor to National Healthcare Group.

## Lucy Chai See Lum



Prof Lucy Lum is a pediatrician with 30 years of experience in dengue management and pediatric intensive care. She collaborated with clinicians in Southeast Asia and Latin America in developing the 2009 revised dengue case classification, evaluation, and clinical research.

Serving as a WHO temporary advisor in dengue outbreak areas in Laos PDR and the Solomon Islands she, together with local healthcare workers, adapted the clinical case management to the minimally resourced environment. In 2012 she was commissioned by WHO Department of Control of Neglected Tropical Diseases to develop a handbook on clinical management of dengue. The Western Pacific Regional Office in 2013, invited her to coordinate the development of a training package in dengue case management, in line with the WHO 2009 Dengue Guidelines. This package serves as the principal training material for the Western Pacific region and Africa.

Before her retirement, she started a second career to promote child health and early childhood nutrition and development, focusing on the first 1000 days during which the foundation for life-long health is laid. focusing on the first 1000 days when the foundation for life-long health is laid. Her collaboration with NGOs in community out-reach programs aims to improve nutrition among young children of urban poor families. Her dream is to live in a circular economy with a carbon-neutral footprint where every child can realize his best human potential.

## **Pisake Lumbiganon**



Prof Pisake Lumbiganon is a Professor of Obstetrics and Gynecology, Convenor of Cochrane Thailand and the Director of the WHO Collaborating Centre on Research Synthesis in Reproductive Health, based at Khon Kaen University. He is also the current President of the Asia Oceania Federation of Obstetrics and Gynecology.

Throughout his career, he has received research grants from numerous international organizations, including IDRC, WHO, Wellcome Trust, the European Commission, and the Thailand Research Fund. He has published over 150 papers in various international journals, including many Cochrane reviews.

From 2009 to 2013, he served as the Dean of the Faculty of Medicine at Khon Kaen University. He was also the President of the Royal Thai College of Obstetricians and Gynecologists from 2016 to 2018. In 2019, he was awarded Fellow ad eundum by the Royal College of Obstetricians and Gynecologists.

Professor Lumbiganon's main areas of interest include maternal and perinatal health, evidence-based practices, systematic reviews, and meta-analyses.

## **Kleber Giovanni Luz**



Dr Kleber Giovanni Luz is graduated in medicine from the Federal University of Rio Grande do Norte (1986), master's degree in Pediatrics and Applied Sciences to Pediatrics from the Federal University of São Paulo (1999) and doctorate in Infectious and Parasitic Diseases from the University of São Paulo (2006). He is currently Associate Professor IV at the Federal University of Rio Grande do Norte. International Consultant of the Pan American Health Organization for Arboviruses - Washington. Member of the Technical Advisory Group for Arbovirus - World Health Organization. He has experience in the area of tropical diseases, working mainly on the following topics: infectious and parasitic diseases, sepsis, nosocomial infection, arboviruses, viral hepatitis and HTLV 1 & 2 infection.

## **Carlos Pardo-Villamizar**



Dr Pardo is a clinical neurologist and neuropathologist and is currently a Professor of Neurology (Divisions of Neuroimmunology and Neuroinfectious Disorders and Advanced Clinical Neurology) and Pathology (Neuropathology) at Johns Hopkins University School of Medicine in Baltimore, Maryland. He received his MD degree from Universidad Industrial de Santander and trained as a neurologist at the Instituto Neurológico de Colombia in his native country, Colombia. He later came to the Johns Hopkins University School of Medicine where he completed fellowship training in experimental and clinical neuropathology and a US neurology residency training and joined the neurology faculty at Johns Hopkins. His clinical expertise centers on neuro-immunological and infectious disorders of the nervous system, with a particular focus on myelitis, neurosarcoidosis, multiple sclerosis, and neurological complications of viral infections.

He is the principal investigator of the Neuroimmunopathology Laboratory and Director of the Johns Hopkins Myelitis & Myelopathy Center at Johns Hopkins Hospital. Dr. Pardo also focuses on global neurology research and is the principal investigator in the Neuroinfections Emerging in the Americas Study (NEAS), a multicenter study of the role of emerging infections in the pathogenesis of acute neuroinflammatory disorders such as encephalitis, Guillain-Barré syndrome (GBS), myelitis and other complications of viral and bacterial infections. NEAS is a collaborative study that involves 12 university-based medical centers in Colombia (South America).

Dr Pardo's research interest focusses on the role of neuroimmune factors in the pathogenesis of neurological disorders and the study of biomarkers of neuro-immunological and infectious disorders. His laboratory has contributed to the study of the role of microglia activation in the cerebral cortex and the function of cytokines and chemokines as factors involved in neurobiological processes associated with disturbances of developmental and neurobehavioral trajectories that characterize HIV infection, multiple sclerosis, and autism. His laboratory is also working on the identification of cerebrospinal fluid and blood biomarkers that may facilitate a better understanding of pathogenesis and phenotypic characterization of neuroimmunological disorders.



## Mostafa Salehi-Vaziri



Dr Mostafa Salehi-Vaziri is a medical virologist who completed his Ph.D. degree at the department of virology, Tehran University of Medical Sciences, Iran in 2015. Then, he started his career at the Pasteur Institute of Iran as the director of the department of Arboviruses and Viral Hemorrhagic Fevers (National reference Laboratory). His area of research interest is related to emerging and reemerging viral pathogens, especially Arboviruses such as Crimean-Congo Hemorrhagic Fever virus, Dengue virus, Chikungunya virus, etc. During these 8 years, he has been involved in several national and international research projects on Arboviruses and published over 50 scientific articles.

Additionally, in order to improve the diagnostic capacity of the laboratory in providing health services to the Ministry of Health, his team set up homemade diagnostic assays for several emerging and reemerging viral agents including Zika virus, Tick-Borne Encephalitis virus, Hantaviruses, Alkhurma Hemorrhagic Fevers virus and Severe Fever with Thrombocytopenia (SFTS) virus the national reference laboratory. Since the beginning of SARS-CoV-2, he was appointed as the head of the COVID-19 national reference laboratory and involved in diagnosis and research projects including monitoring SARS-CoV-2 variants in Iran and their impacts on clinical outcome of COVID-19 and molecular diagnosis of the virus.

## Erin Staples



Dr. Erin Staples is a medical epidemiologist at the U.S. Centers for Disease Control and Prevention (CDC) in the Arboviral Diseases Branch located in Fort Collins, Colorado. She oversees the surveillance of domestic arboviral diseases, provides guidance for clinical care, testing, and prevention of arboviral diseases, develops arboviral vaccine recommendations, and conducts epidemiologic evaluations and research both domestically and internationally. Her past work experiences include lead of CDC's Arboviral Diagnostic and Reference Laboratory, bacterial zoonotic diseases work at CDC, vaccine development in industry, and clinical work in pediatric infectious diseases. Dr. Staples has both a medical degree and a doctoral degree in microbiology and immunology and has published on a variety of scientific subjects, including more than 150 articles and book chapters on arboviral diseases.

## Michel Van Herp



Dr Van Herp is an epidemiologist who has worked for Médecins Sans Frontières (Brussels, Belgium) since the beginning of their career. After more than ten years in the field in Africa and Latin America, they joined the medical service of the Brussels headquarters as an expert, where they still work today. He is responsible for managing acute infectious diseases, including cholera, Ebola, Lassa fever, measles, SARS, and COVID-19.

During the Yellow Fever outbreak in Guinea in 2000-01, the mass vaccination efforts were limited by insufficient international stocks. This situation led to the creation of the International Coordinating Group on Vaccine Provision for Yellow Fever and the establishment of a reserve stock of vaccines to better respond to epidemics. Dr. Van Herp has been part of the ICG YF since its inception. He is also a member of the “Eliminate Yellow Fever Epidemic Risk Assessment Working Group” in Geneva, Switzerland.

## **Maria Esterlita Villanueva-Uy**



Dr Maria Esterlita Villanueva-Uy, commonly known as Tita by her colleagues, has been a pediatrician and neonatologist for around three decades. She works in a training hospital where she teaches Pediatric residents and Newborn Medicine fellows. Additionally, she is affiliated with the College of Medicine of UP Manila, where she conducts teaching rounds and lectures with students.

During her residency and fellowship, research activities were prerequisites, and she enjoyed these immensely. She received an award for her residency research paper. During her fellowship, she placed second in the AAP Young Investigator's award in her second year and won the AAP Young Investigator's award in her third year. She returned to the Philippines as a Balik Scientist (Returning Scientist) awardee. Her mentor during her fellowship received an RO1 grant from the US NICHD, and she was chosen to implement the study in the Philippines. This study focused on fetal exposure to environmental toxins and infant/child neurobehavioral outcomes and ran for more than ten years as a prospective cohort from pregnancy to six years of age.

Dr. Villanueva-Uy has also engaged in neonatal research, including the amplification of universal bacterial DNA and the use of ketorolac for the closure of the patent ductus arteriosus. She has mentored and conducted studies on kangaroo mother care and led a cost-effectiveness study on vaccines such as rotavirus and human papillomavirus. She has been involved in developing clinical guidelines for neonatal sepsis and is currently conducting studies on multiple cytokines, epigenetic changes in the Vitamin D receptor gene, and urine metabolomics in children with different TB statuses.

Currently, she is the institute director of ICHHD. The institute's main studies focus on dengue and dengue vaccines, as well as the long-term outcomes of adult TB. Through her affiliation with the institute, she is familiar with the effectiveness of dengue vaccines among the local population in the Philippines. The study group is currently investigating the molecular responses of children exposed to the dengue vaccine.

## Liya Wassie



Dr Liya Wassie is a senior scientist, working at the Mycobacterial Diseases Research Unit of the Armauer Hansen Research Institute (AHRI) in Ethiopia. She received her PhD in immunology from the University of Copenhagen, Denmark. Her research focuses on identification of biomarkers, with potential application in improved TB vaccines or diagnostic developments. She has extensive experience in leading clinical and translational research in TB and led a number of TB research projects, that were funded by EDCTP and NIH. Her collaborative research efforts also contributed to the development of skilled research workforce via training and mentorship of several postgraduate students/fellows. She has been also actively engaged in bioethics, acting as a member and vice chair of institutional and national ethics committees and contributing to the development of institutional and national research ethics guidelines. She is also an active, core member of the National Immunization Technical Advisory Group (NITAG) in Ethiopia, an independent group advising the Ministry of Health, on introduction of new and improved vaccines and improved immunization strategies. Dr. Wassie has published over 50 peer-reviewed scientific articles, mostly indexed on Pubmed. She has contributed to the development of this guideline by providing ethical oversight.

## Annex 1

Name	Conflict of interest
<b>TajEldin Mohammedein Abdallah</b>	No conflict of interest identified.
<b>Ashutosh Biswas</b>	No conflict of interest identified.
<b>Orlando Cuéllar</b>	No conflict of interest identified.
<b>Ismaël Diallo</b>	No conflict of interest identified.
<b>Cristina Domingo Carrasco</b>	No conflict of interest identified.
<b>Pillaveetil Sathyadas Indu</b>	No conflict of interest identified.
<b>Emilie Javelle</b>	No conflict of interest identified.
<b>Mikaïla Kaboré</b>	No conflict of interest identified.
<b>Marta Lado</b>	No conflict of interest identified.
<b>Yee-Sin Leo</b>	No conflict of interest identified.
<b>Kleber Giovanni Luz</b>	No conflict of interest identified.
<b>Lucie Chai See Lum</b>	Research support from Sysmex Asia-Pacific of USD 35,000 in 2021. Decision: no action needed.
<b>Pisake Lumbiganon</b>	No conflict of interest identified.
<b>Carlos Pardo-Villamizar</b>	No conflict of interest identified.
<b>Mostafa Salehi-Vaziri</b>	No conflict of interest identified.
<b>Erin Staples</b>	Employment as subject matter expert in arbovirus for US CDC from 2007 to today. Decision: no action needed.
<b>Michel Van Herp</b>	No conflict of interest identified.
<b>Maria Esterlita Villanueva-Uy</b>	No conflict of interest identified.
<b>Liya Wassie</b>	AHRI, the institute I am working in, received research funding to investigate causes of acute febrile illness in the peripheries/borders of Ethiopia from the Institute for Tropical Medicine (Belgium): 40,000 euros from 2022 to 2025. Decision: no action needed.