

Malaria Policy Advisory Group (MPAG)

Declaration of Interests report for MPAG virtual meeting held from 8 to 10 April 2025

All sixteen MPAG members participating in the meeting updated their declarations of interest in advance of the meeting, which were assessed by the WHO Secretariat. Thirteen members reported interests, which are summarized below. No MPAG members reported specific interests regarding relevant April 2025 agenda topics for decision. It was assessed that all members could fully participate in all sessions.

All the reported interests are summarized below:

1. Professor Evelyn Ansah, University of Health & Allied Sciences, Ghana

- Research Support – Ghana Co-Investigator on funding from PATH for the Health Utilization Study on a qualitative assessment of the pilot implementation of RTS,S. (ongoing) This interest was assessed as non-personal, non-specific and financially significant.*

2. Emeritus Professor Graham Brown, Professor, University of Melbourne, Australia

- Consulting – WHO/Global Malaria Programme contract to write the interim draft of the Executive Summary of Strategic Advisory Group on malaria eradication (SAGme) report (2019). This interest is assessed as personal, non-specific and financially significant.*
- Knowledge declaration – The outcome of the meeting could benefit or adversely affect interests of declared close professional colleagues working in malaria research with interests in vaccines, diagnostic tests and anti-malaria drugs. This interest is assessed as personal, non-specific and non-financially significant. All knowledge obtained through MPAG functions is bound by the conditions outlined in the Confidentiality of Understanding signed by all MPAG members.

3. Professor Umberto d'Alessandro, Director, Medical Research Council Unit the Gambia, London School of Hygiene and Tropical Medicine, UK

- Research support – All interests assessed as non-personal, non-specific and financially significant.*
 - (a) Principal investigator in phase 1b multi-stage *p. falciparum* malaria vaccine study to assess the safety and immunogenicity of the blood-stage vaccine candidate RH5.2 virus-like particle (VLP) in Matrix-MTM and the preerythrocytic stage vaccine candidate R21 in Matrix-MTM, both along and in combination, in adults and infants in the Gambia funded by EDCTP (June 2016 - March 2025).
 - (b) Principal investigator in seasonal R21 mass vaccination for malaria elimination funded by Applied Global Health Research MRC UKRI (ongoing - August 2026).
 - (c) Principal investigator of a multi-centre randomized controlled non-inferiority trial to compare efficacy, safety and tolerability of the Triple Artemisinin-based Combination Therapies versus first-line ACTs + placebo for the treatment of uncomplicated *p. falciparum* malaria in Africa, funded by the University of Oxford (ended June 2023).
 - (d) Principal investigator in a clinical trial on the safety and efficacy of pyronaridine-artesunate (Pyramax) in asymptomatic malaria-infected individuals. The Medical Research Council Unit (MRC), The Gambia, received funding from Medicines for Malaria Venture (MMV) (2018 - December 2019).
 - (e) Co-investigator of a phase 2a trial on M5717 combined with pyronaridine in asymptomatic malaria-infected individuals, funded by Merck (ended December 2024). This interest is assessed as personal, non-specific and financially significant.*

- Consultant – Development of M5717 new antimalarial drug for Merck Health care KGaA (November 2022 – December 2023). This interest is assessed as personal, non-specific and financially significant.*

4. Professor Chris Drakeley, Immunologist, Department of Infection Biology, London School of Hygiene and Tropical Medicine, UK

- Research support – All interests assessed as non-personal, non-specific and financially significant.*
 - (a) Support from BMGF for programme grant Vivax serology partnership (VISPA).
Multicomponent grant attempting to provide umbrella for those working on vivax serology. Two components have been funded so far, manage and oversight (including policy) largely delivered by WEHI and a set of biobanking studies which include Brazil, Ethiopia and Pakistan. Professor Drakeley is co-Principal Investigator with Professor Ivo Mueller with key support from Michael White and Leanne Robinson. The grant is held by WEHI. (<https://vispa.online/about-vispa/>) (ongoing).
 - (b) UK funded component (UKRI) of an EU Horizon 2020 study. Award for a study on P. vivax serology test and treat in Madagascar. Professor Drakeley is co-Principal Investigator and LSHTM is an external recipient. The study centers around a randomised controlled trial with the intervention based on treatment of those serology-positive in the assay developed by WEHI/Pasteur for the identification of the hypnozoite carriers compared to the standard of care alone. Other aspects are social acceptability, digital health related to G6PD testing and capacity building. Partners are AHRI Ethiopia, Pasteur Madagascar, FIND, University of Galway, Medea Italy and WEHI (ongoing).
 - (c) Research support from BMGF to fund study to evaluate the effect of increasing the age range of SMC on malaria transmission (ongoing).
 - (d) Research support from BMGF to fund study on evaluation of new drug combinations on transmission reduction (2023).
 - (e) Research support from BMGF to fund study on impact of malaria infection on COVID (2023).

5. Professor David Fidock, Director, Centre for Malaria Therapeutics and Antimicrobial Resistance, Columbia University, USA

- Research support – All interests assessed as non-personal, non-specific and financially significant.*
 - (a) Research support – from Medicines for Malaria Venture supporting studies of drug resistance risks in their portfolio of antimalarials in late discover or undergoing development. The research assesses whether compounds are prone to resistance and studies the mechanisms of resistance and modes of action (January 2024 – December 2025).
 - (b) Research support –from the Bill & Melinda Gates Foundation for work on the Malaria Drug Accelerator Consortium (MaDA) which works to define the ‘drug-able genome’ of *P. falciparum* parasites to develop new target-based drug screens. Co-investigator with Dr Elizabeth Winzele from UCSD (October 2021 – March 2025).
 - (c) Research support – principal investigator - from the Bill & Melinda Gates Foundation on antimalarial drug resistance using genetic crosses and studies to accelerate the throughput of laboratory-based experiments that define the resistance risks of antimalarial compounds in early discovery (July 2021 – Feb 2025).

- 6. Dr Christian Happi, Professor of molecular biology and genomics and Director of the African Centre of Excellence for genomics of infectious diseases, Redeemer's University, Nigeria.**
- Employment – Employment with Redeemer's University, Nigeria, where he holds the position of Director of ACEGID and Professor of Molecular Biology and Genomics (ongoing). This interest is assessed as personal, non-specific, and financially significant.*
 - Research Support – Research grant and project funding support to Redeemer's University and affiliated research units received from the following organizations (all ongoing). All interests are assessed as non-personal, non-specific, and financially significant.*
 - a) NIH/NIAID – Co-Principal Investigator of the International Center of Excellence for Malaria Research (ICEMR) in West-Central Africa.
 - b) NIH – Lead recipient of funding under the DS-I Africa program for antimicrobial resistance genomics research.
 - c) Bill & Melinda Gates Foundation – Recipient of support for disease surveillance and sequencing projects.
 - d) Wellcome Trust – Previous support through collaborative genomics work on Ebola and COVID-19 preparedness.
 - Advisory Roles – No honorarium provided. This interest is assessed as personal, non-specific, and financially significant.*
 - a) Member, Scientific Advisory Group on Genomics and Bioinformatics for the Africa CDC (ongoing).
 - b) Member, Africa Task Force for Novel Coronavirus (AFTCOR) laboratory technical working group (closed).
 - c) Advisory contributor to TED/Wellcome sessions on public health innovation (closed).
- 7. Dr Nilima Kshirsagar, Emeritus Scientist, Indian Council of Medical Research, India**
- Consulting – Zydus Lifesciences, company driven by the purpose of delivering care and nurturance for the patients, backed by power of innovation, science and cutting-edge technology. Providing scientific advice (July 2023 - ongoing). Honorarium provided. This interest is assessed as personal, non-specific and financially significant.*
 - Advisory roles – Board member of Clantha Research Limited. Honorarium provided (ongoing).
- 8. Dr Corine Ngufor, Associate professor, London School of Hygiene and Tropical Medicine, UK**
- Research support – Principal investigator for research for the evaluation of Insecticide Treated Nets (ITNs) and Indoor Residual Spraying (IRS). Her research group is also part of NNP research team evaluating the efficacy of Interceptor G2 and Royal Guard. Also working on a spatial repellent product. These interests are assessed as non-personal, non-specific and financially significant.* Funders listed below:
Vestergaard (ongoing); Shobikaa Impex (ongoing); SC Johnson (ongoing); Tianjin Yorkool (ongoing); AtoZ (closed 2023); Global Fund to Fight AIDS, Tuberculosis and Malaria (closed December 2024); USAID (closed); BASF (closed); New Nets Project (closed); DCT (closed); IVCC (closed); Syngenta (closed); Mitsui (closed); UNITAID (closed); Gates Foundation (closed); DFID (closed)
 - Advisory roles – Providing scientific advice. No honorarium provided. This interest is assessed as personal, non-specific and financially significant.*
 - a) Presenting data and provide expert opinion for ITN and IRS products, for tests undertaken for private sector.
 - b) Technical Advice to WHO/GMP meetings (noninferiority technical consultations, VCAG and MPAG Technical Advisory Groups) and WHO/RPQ (product assessment feedback) (ongoing).

9. Dr Francine Ntoumi, Founder, Chair and Executive Director of the Congolese Foundation for Medical Research, Congo.

- Employment with the Congolese Foundation for Medical Research and the Medical Research Unit of the Albert Schweitzer Hospital in Lambarène, Gabon and the Institute of Tropical Medicine at the University of Tübingen (ongoing). This interest is assessed as personal, non-specific and financially significant.*
- Research support – Research grant support to Harvard University received from the following organizations (all ongoing): All interests assessed as non-personal, non-specific and financially significant.*
 - a) Public health research through the Central African Network on Tuberculosis, HIV/AIDS and Malaria (CANTAM) funded by EDCTP.
 - b) Public health research through PANDORA-ID-Net funded by EDCTP.
 - c) Public health research through the Clinical Research Hub for Central Africa funded by Alexander von Humboldt Foundation.
- Advisory roles – No honorarium provided. This interest is assessed as personal, non-specific and financially significant.*
 - a) Member of the WHO AFRO Advisory Committee on Health Research and Development
 - b) Member of the External Advisory Committee of the Barcelona Institute for Global Health (ISGlobal) (ongoing).
 - c) Member of the Global Health Scientific Advisory Committee of the Gates Foundation (ongoing).
 - d) Member of the Scientific Advisory Committee of the European Vaccine Initiative (EVI) (ongoing).
 - e) Member of the Scientific Advisory Board of the Foundation Mérieux (ongoing).
 - f) Member of the Board of Directors of the International AIDS Vaccine Initiative (IAVI) (ongoing)
 - g) Member of the Scientific Advisory Board for the Global Health Network (TGHN) University of Oxford (ongoing)
 - h) Member of the Advisory Panel of the Africa Research Excellence Fund (AREF) (2015 – closed).
 - i) Member of the SAC nomination committee of the GISAID Data Science Initiative (closed).

10. Dr Fredros Okumu, Director of Science, Ifakara Health Institute, Tanzania

- Employment – with Ifakara Health Institute and University of Glasgow (ongoing). This interest is assessed as personal, non-specific and financially significant.*
- Consulting – for WHO Vector Control Product Prequalification as a consultant assessor (2020 Closed). This interest is assessed as personal, non-specific and financially significant.*
- Research support – All interests assessed as non-personal, non-specific and financially significant.*
 - a) Research support – grants received from the Bill & Melinda Gates Foundation; WHO-TDR programme; Wellcome Trust; Foundations of the National Institutes of Health, USA; Africa Research Excellence Fund; UKRI/EPSRC, UK; Rudolf Geigy Foundation, Switzerland; Hanako Foundation, Singapore; The Royal Society, London; The British Academy, London; UNITAID, Medical Research Council, UK; Swiss National Science Foundation, USAID, Innovative Vector Control Consortium, Grand Challenges, Canada, Scottish Funding Council and Consortium for Advanced Research Training in Africa (some closed; some ongoing). All grants were awarded to Ifakara Health Institute and are assessed as non-personal, non-specific and financially significant.*
 - b) Patent Applications held by Ifakara Health Institute and assessed as non-personal, non-specific and non-financially significant.*

- c) World Intellectual Property Organization. Patent number WO 2010/101462-A2: *Behavior modifying odorant mixture for malaria mosquitoes* (Joint patent by Ifakara Health Institute, TZ and Wageningen University, The Netherlands): <https://patents.google.com/patent/WO2010101462A2/en>
- d) World Intellectual Property Organization. Patent number WO 13187690.6-1656: *A complex of structures for delivering pesticidal agents to arthropods*. (Joint patent by Ifakara Health Institute, TZ & In2Care Holding B.V, The Netherlands): <https://patents.google.com/patent/EP2859794A1/en?q=A&q=complex&q=structures&q=delivering&q=pesticidal+agents&q=arthropods&oq=A+complex+of+structures+for+delivering+pesticidal+agents+to+arthropods>
- Expert opinions: contributed to the following assessed as personal, non-specific and non-financially significant.*
 - a) Serves as a member of the Malaria Strategic Advisory Panel for the Bill & Melinda Gates Foundation (ongoing)
 - b) Contributed in Research and Draft team for Africa Union on: African Union High Level Panel on Emerging Technologies (2018): Gene Drives for Malaria Control and Elimination in Africa. <https://www.nepad.org/publication/gene-drives-malaria-control-and-elimination-africa>
 - c) Contributed as a co-chair of malERA Refresh Consultative Panel on Tools for Malaria Elimination. (2017). malERA: An updated research agenda for diagnostics, drugs, vaccines, and vector control in malaria elimination and eradication. PLoS Med. 2017 Nov 30;14(11):e1002456.doi: 10.1371/journal.pmed.1002456. eCollection 2017 Nov. Review: <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002455>
 - d) Contributed as a member of this panel: James S, Collins FH, Welkhoff PA, Emerson C, Godfray HCJ, Gottlieb M, Greenwood B, Lindsay SW, Mbogo CM, **Okumu FO**, Quemada H, Savadogo M, Singh JA, Tountas KH, Touré YT (2018). Pathway to Deployment of Gene Drive Mosquitoes as a Potential Biocontrol Tool for Elimination of Malaria in Sub-Saharan Africa: Recommendations of a Scientific Working Group†. Am J Trop Med Hyg. **2018** Jun;98(6_Suppl):1-49. doi: 10.4269/ajtmh.18-0083. <https://pubmed.ncbi.nlm.nih.gov/29882508/>

11. Dr Melissa Penny, Fiona Stanley Chair in Child health Research, University of Western Australia (UWA), Australia

- Employment as research assistant professor with Swiss Tropical and Public Health Institute, and The Kids Research Institute, UWA (ongoing). This interest is assessed as personal, non-specific and financially significant.*
- Research - All interests assessed as non-personal, non-specific and financially significant.*
 - a) Research funding for malaria modelling, including, impact and cost-effectiveness of malaria interventions; development of new tools, intervention strategies and elimination efforts from Swiss National Science Foundation, PATH,MVI,Vaccine Impact Modelling Consortium, Gates Foundation and Open Philanthropy. (ongoing)
 - b) Technical discussions with Novartis, BioNTech, NIH, Merck, MMV, Gates Foundation MRI on malaria interventions. No funding linked to this work.
 - c) Successfully selected for a WHO Long-Term-Agreement on malaria vaccine modelling. No contract yet in place.

12. Dr Aranxta Roca Feltrer, Regional Malaria Director, Malaria Consortium, Mozambique

- Employment with PATH (non-for profit organization) for a grant funded by BMGF aiming to provide technical assistance to malaria endemic countries (ongoing). This interest is assessed as personal, non-specific and financially significant.*
- Employment with the Malaria Consortium (non-profit organization) (closed). This interest is assessed as personal, non-specific and financially significant.*
- Research - All interests assessed as non-personal, non-specific and financially significant.*
 - a) Grants from the Bill & Melinda Gates Foundation on surveillance strengthening in Mozambique (closed).
 - b) Grant from the Gates Foundation aiming to provide technical assistance to malaria endemic countries to strengthen surveillance systems and use of data (ongoing).
- Advisory roles – No honorarium provided. This interest is assessed as personal, non-specific and financially significant.*
 - a) Technical Advisor on RBM Surveillance Monitoring and Evaluation (SME) working group. Providing advice on surveillance strengthening activities across malaria endemic countries (ongoing).

13. Professor Dyann Wirth, Richard Pearson Strong Professor and Chair, Harvard T.H. Chan School of Public Health, USA

- Research support – Research grant support to Harvard University received from the following organizations (all ongoing): All interests assessed as non-personal, non-specific and financially significant.*
 - a) National Institute of Health, USA – Principal Investigator or Co-PI on four grants on new drug discovery and drug resistance (DHODH/mitochondrial targets, ProRS and targeting parasites in mosquitoes, and ACT resistance).
 - b) Bill & Melinda Gates Foundation
 - Support for Genetic epidemiology of malaria, Rethinking malaria global leaders initiative, and Malaria drug accelerator (MalDA) consortium. MalDA consortium is a global consortium of researchers and drug developers identifying and sharing compounds deemed to be effective candidates for the drug pipeline for malaria treatment and prevention (ongoing).
 - Support for the Malaria Drug Accelerator (MalDA) Consortium, as co-principal investigator on a grant housed at the University of California San Diego (ongoing).
 - Support for Rethinking Malaria Global Leaders Initiative, as co-principal investigator. No salary or honorarium received (ongoing).
 - c) PATH – Principal Investigator for Mal095 using RTS,S to look at the issue of allele specific immunity (ongoing).
 - d) NIH – Four grants as either Principle Investigator or co-Principle Investigator on new drug discovery and drug resistance (DHODH/mitochondrial targets, ProRS and targeting parasites in mosquitoes, ACT resistance).
- Educational support to Harvard University for the Science of Defeating Malaria Leadership course . Funding provided by BMGF, JC Flowers Foundation, Sumitomo Corporation, USAID and ExxonMobil. (ongoing). These interests are assessed as non-personal, non-specific and financially significant.*
- Advisory roles – All interests assessed as personal, non-specific and financially significant.*
 - a) Board member of Medicines for Malaria Venture (MMV) Expert Scientific Advisory Committee (ESAg). No salary received. Honorarium and travel provided (ongoing).
 - b) Member of Board of Trustees of the Marine Biological Laboratories, Wood Hole, MA. No honorarium or travel expenses received (ongoing).
 - c) Annual Award Committee Member of Warren Alpert Foundation Scientific Advisory Committee for the annual award. Honorarium received (ongoing).

- d) PATH/PMI Insights initiative which is a collaborative body of global experts on malaria research and policy to increase access and information to forward the goal of malaria elimination (ongoing).
- e) Reviewer for National Institutes of Health (NIH) grants. No salary or honorarium received (ongoing).
- f) Reviewer of research and development projects for Global Health Innovative Technology Fund (GHIT). No salary or honorarium received (ongoing).
- g) Committee Member of Advisory on Malaria Elimination in Nigeria (AMEN) group. No salary or honorarium received and travel expenses covered (ongoing).
- h) Member of leadership group for Malaria Drug Accelerator Consortium (MalDA). No salary or honorarium received (ongoing).
- i) Expert advice to Gates Foundation initiative for Rethinking Malaria. No salary or honorarium received (ongoing).

Due diligence (internet search)

Nothing significant was found that was not already declared by MPAG members.

* According to WHO's Guidelines for Declaration of Interests (WHO expert), an interest is considered "personal" if it generates financial or non-financial gain to the expert, such as consulting income or a patent. "Specificity" states whether the declared interest is a subject matter of the meeting or work to be undertaken. An interest has "financial significance" if the honoraria, consultancy fee or other received funding, including those received by expert's organization, from any single vaccine manufacturer or other vaccine-related company exceeds 5,000 USD in a calendar year. Likewise, a shareholding in any one vaccine manufacturer or other vaccine-related company in excess of 1,000 USD would also constitute a "significant shareholding".