

Abstracts of Oral Presentations

OA-53 USING TECHNOLOGY TO BUILD A REGULATORY ECOSYSTEM ACROSS AFRICA TO HELP STREAMLINE REGULATORY APPROVAL TIMELINES, SO DOING, UNLOCKING MORE INVESTMENT INTO THE CONTINENT
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The use of technology to enhance medicine regulation in Africa, particularly through the establishment of the African Medicines Agency (AMA), will help drive efficiencies within national regulatory agencies. By adopting electronic tools and platforms, national regulatory agencies can streamline their regulatory processes, reducing the time and cost of regulatory review, and enabling faster access to safe and effective medicines.

Electronic submission systems, for example, can reduce the need for paper-based submissions, simplifying the review process and minimizing errors. Electronic data capture systems can improve the quality of data collected in clinical trials, reducing the need for manual data entry and enhancing data security. This can enable regulatory agencies to more efficiently and effectively review applications and monitor clinical trials, ensuring the safety and efficacy of new medicines.

Moreover, the harmonization of regulatory requirements across Africa, facilitated by AMA's collaboration with other regulatory bodies, can help reduce the regulatory burden on national agencies. By adopting common regulatory standards and guidelines, national agencies can better align their processes with those of their counterparts in other African countries, reducing duplication and improving efficiency.

Overall, the use of technology and the establishment of a continental regulatory body such as AMA can help national regulatory agencies in Africa improve their regulatory processes, enhance transparency and accountability, and ensure faster access to safe and effective medicines for their populations.

OA-58 ASSOCIATIONS BETWEEN PRENATAL MALARIA EXPOSURE, MATERNAL ANTIBODIES AT BIRTH AND MALARIA SUSCEPTIBILITY DURING THE FIRST YEAR OF LIFE IN BURKINA FASO

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Background Although infants are thought to be protected against malaria during the first months of life mainly due to maternal antibodies, malaria in early childhood is not uncommon in high-transmission settings and susceptibility to *Plasmodium falciparum* infections varies between infants. This study aimed to investigate how different categories of prenatal malaria exposure (PME) influence levels of maternal antibodies

in cord blood samples and examined the effect of maternal antibody concentrations at birth on subsequent risk of malaria in early childhood.

Methods A birth cohort study (N=661) was nested within the COSMIC clinical trial (NCT01941264) in Burkina Faso. *P. falciparum* infections during pregnancy and infants' clinical malaria episodes detected during the first year of life were recorded. The levels of maternal IgG and IgG1-4 to 15 *P. falciparum* antigens were measured in cord blood by quantitative suspension array technology.

Results Results showed a significant variation in the magnitude of maternal antibody levels in cord blood, depending on the PME category, with past placental malaria (PM) more frequently associated with significant increases of IgG and/or subclass levels across three groups of antigens defined as pre-erythrocytic, erythrocytic and markers of PM, as compared to those from the cord of non-exposed control mothers. High levels of antibodies to certain erythrocytic antigens (EBA140, EBA175, MSP142, and MSP5) were independent predictors of protection from clinical malaria while antibodies to VAR2CSA-DBL1-2 and DBL3-4 were significantly associated with an increased malaria risk during the first year of life. Remarkably, ratios of protective-to-risk antibodies above 1 at individual level were associated with protection from clinical malaria during the first year of life.

Conclusion These findings indicate that PME categories have different effects on the levels of maternal-derived antibodies to malaria antigens in children at birth and that, this might drive heterogeneity to clinical malaria susceptibility in early childhood.

OA-59 ACHIEVING EQUITABLE LEADERSHIP IN GLOBAL HEALTH PARTNERSHIPS: BARRIERS EXPERIENCED AND STRATEGIES TO IMPROVE GRANT FUNDING FOR EARLY AND MID-CAREER RESEARCHERS IN LOW- AND MIDDLE-INCOME COUNTRIES

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Background Calls to decolonise global health have highlighted the continued existence of colonial structures in research into diseases of public health importance, particularly in low- and middle-income countries (LMICs). A key step towards restructuring the system is equitable leadership in global health partnerships whereby researchers in LMICs are given the opportunity to successfully secure grant funding to lead and drive their own research based on locally defined priorities.

Methods In February 2022, the Tuberculosis (TB) Centre of the London School of Hygiene and Tropical Medicine (LSHTM) hosted a virtual multi-stakeholder workshop aimed at bringing together funders and early- and mid-career researchers (EMCRs) to identify funder initiatives that have worked to improve equitable leadership, to better understand barriers faced by EMCRs, and collectively brainstorm approaches to overcome these barriers. The workshop