



# ASAAP NEWSLETTER

The Official Newsletter of **ASAAP Project** | N° 02 | July 2022

... stronger together

## Project Updates

### Pilot Study

The ASAAP pilot study assessed the safety and tolerability of Artemether-Lumefantrine+Atovaquone-Proguanil (AL+AP) and AL + placebo for the treatment of uncomplicated *Plasmodium falciparum* malaria in adults and adolescents, prior to rolling out a multi-centre evaluation of the same two treatments in young children. The last of sixty participants in the Pilot study was recruited on January 15, 2021, at the Centre de Recherches Médicales de Lambaréné (CERMEL) in Lambaréné in Gabon.

**Congratulations to the Gabon team for successfully completing the Pilot study!**

### Main Study Updates

On January 07, 2022, Mali recruited its first study participant diagnosed with uncomplicated malaria at the Malaria Research Training Centre (MRTC) of Université des Sciences, des Techniques et des Technologies de Bamako (USTTB), Bamako Mali. The recruitment in Mali led by Prof Abdoulaye Djimde (Principal Investigator) and Dr Mamadou Tekete (Study Coordinator) marked the start of the ASAAP main study, which is taking place in Benin, Gabon, Ghana and Mali to develop a readily deployable highly efficacious, safe and well-tolerated antimalarial combination therapy for young children aged 6-59 months.

The ASAAP main study is registered with the ISCRTN ISRCTN14750348 and the PACTR PACTR202201797112873 trial Registries. 📄



**To read:** Challenges in the clinical development pathway for triple and multiple drug combinations in the treatment of uncomplicated falciparum malaria.

Bassat Q, Maïga-Ascofaré O, May J, Clain J, Mombo-Ngoma G, Groger M, Adegnika AA, Agobé JD, Djimde A, Mischlinger J, Ramharther M; ASAAP and Multimal Consortia. *Malar J.* 2022 Feb 22;21(1):61. doi: 10.1186/s12936-022-04079-9.

# Capacity Building/Site Readiness



## Investigators Meeting

The ASAAP consortium held a two-day Investigator's meeting in Accra, Ghana from September 09 – 10, 2021 for all Work Package (WP) leads, Co-leads and Investigators from all seven partner institutions and sites on the ASAAP trial.

Other participants to the meeting included Pharmalys, the Contract Research Organization (CRO) for the ASAAP study. The objective of this meeting was to discuss harmonization and site preparedness issues towards the start of the main study in Mali, Gabon, Benin and Ghana. ↩

## GCP Training

The Global Health and Infectious Diseases Research Group (GHID) at the Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR), in collaboration with the African Regional Training Centre (ARTC) with support from the World Health Organization (WHO) Special Programme for Research and Training in Tropical Diseases (TDR), the German-West-African Centre for Global Health and Pandemic Prevention (G-WAC) and the Short Courses and Programmes Unit, Office of the Vice Chancellor, KNUST, organized a three-day workshop on Good Clinical Practice (GCP) from November 15-17, 2021.



The main aim of the training was to equip participants with practical and contextual knowledge for implementing GCP-compliant clinical research. In attendance were three staff from the study site in Ghana, namely Dr Esi

Yocoba Bart Plange, Esther Naadu Placca, and Dr Isaac Agyiri. This training provided the participants with knowledge and skills which they will apply to the implementation of the ASAAP study. ↩



## Entomology Training

WP4 of ASAAP is responsible for training local entomologists on membrane-feeding assays and monitoring the implementation of the assays locally. To establish the Direct Membrane-Feeding Assay (DMFA) technique, a hands-on training was organized at the Institut des Sciences et Techniques de Bobo (INSTech-Bobo) and the Research Institute Science Health Regional Directorate L'ouest (IRSS) in Burkina Faso for selected study staff. The training, which took place from the May 17-31, 2021 was led



by Dr. Serge Yerbanga and trainees from all four ASAAP partner countries: - Ghana (represented by Priscilla Adjei Kusi and Agyei Kumi), Benin (Aziz Bouraima and Christophe Soares), Mali (Fatalmoudou Tandina and Ballo Fatoumata), Gabon (Ngossanga Barclaye and Ndong Engueng Jean Thierry Lachet).

The training equipped participants with skills to improve on the DMFA

technique and gave them a foretaste of the transmission study arm of the main trial. Capacities were also developed in techniques such as rearing and colony establishment, blood collection and processing, mosquito dissection, oocyst detection and count in the midgut (microscopy), malaria parasite slide preparation and staining, and malaria slide reading. 🏠

## Student Highlight: Dossou Akpéyédjé Yannelle

Dossou Akpéyédjé Yannelle, Site coordinator of the ASAAP study in Benin, is a Medical Doctor and holds a Masters Degree in Public health from the University of Paris 11. Thanks to EDCTP funding, she has enrolled for her PhD in Epidemiology at the Doctoral School of Health Sciences, University of Abomey-Calavi, in Benin. She is currently in the second year of her PhD with her research focused on the determinants of asymptomatic malaria in southern Benin.

During the first year of her PhD, she collected data in the village of

Adjirako, in the south of Benin, known to be a malaria endemic area. The data collection was done in two phases; the first phase in the dry season (screening of 1064 subjects) and the second phase in the rainy season (screening of 408 subjects). During the first phase of data collection, all 1064 inhabitants of the village were screened for malaria by three methods (PCR; microscopy and TDR); with 200 negative subjects and asymptomatic carriers being selected for follow-up. In the second phase, 408 subjects were followed-up for 9 weeks, with malaria screening sessions conducted every 3 weeks by the three above-mentioned methods. The sampling took place in the same geographical area where the implementation of ASAAP in Benin is scheduled to take place, and has provided insight into the population



dynamics, which will be helpful in designing subsequent sampling approaches within the framework of ASAAP.

Through the EDCTP funding, ASAAP is very proud to have granted Yannelle the opportunity to do this research as part of strengthening capacity in the field of epidemiology. 🏠

## Spotlight

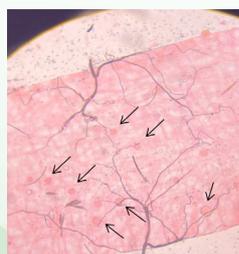
### Entomology - Ghana Site

Entomology work at the Ghana study site has seen tremendous growth over the past year. Until the start of the ASAAP project there was no insectarium at KCCR since there was no demand for mosquitoes by any project at the Centre. This new level 2 entomology laboratory consists of a 3 room on an 80 m<sup>2</sup> building and insectary equipment capable of producing about 5000 Anopheles mosquitoes a week.

### Establishment of Mosquito Colony

WP4 aims to determine the efficacy of AL+AP in preventing human-to-mosquito transmission of *P. falciparum* and preventing the development of the mosquito stage of *P. falciparum*. Since WP4 experimental work will be performed

using *An. gambiae* Kisumu strain, two Kisumu egg batches were received from Infracvec2, IRD-France and AngloGold Ashanti Malaria Control Limited, Ghana for the establishment of the colony. Eggs were hatched and emerging adults were fed on rabbit blood through a direct skin feeding approach for continuous reproduction. 🏠



## Establishment of DMFA in Ghana

Direct Membrane Feeding Assay (DMFA) is a fundamental assay to evaluate efficacy of transmission-blocking intervention (TBI) candidates against *Plasmodium* species. This is a complicated procedure and therefore requires special expertise. After the DMFA training in Burkina Faso, coupled with a number of troubleshooting episodes, the Ghana site has been able to successfully establish the DMFA technique. A pilot study was conducted in a number of communities to screen healthy individuals for gametocytes. Blood from these gametocyte carriers was subsequently collected for DMFA assay with some success in the infection of mosquitoes.



## Editorial Corner

### Global Eradication of Malaria: Current Status and Future Prospects

Malaria remains a public health problem in about 100 countries and it is still endemic in some communities. Research shows that in 2015, about 212 million cases occurred globally, which led to 429,000 deaths, many of which occurred in children under five years in Africa. It is estimated that in 2021, about 241 million clinical cases of malaria were recorded worldwide (World Malaria Report, 2021).

Programmes focused on control of malaria (reducing the morbidity and mortality) have become an essential part of the primary healthcare systems in many developing countries.

### Strategy for Malaria Control

In regions with significant transmission of malaria, interventions are implemented extensively to mitigate the public health burden of the disease. These interventions seek to halt local transmission among hard-to-reach populations and people living in densely populated areas over small geographic regions.

Innovative measures in vector control, diagnosis, and treatment must be implemented, and efforts towards the development of new drugs accelerated, if significant success can be achieved in reaching control and elimination goals. Exploration of the most appropriate ways of deploying existing interventions such as insecticide-treated mosquito nets, rapid methods of diagnosis, and the artemisinin-based combination treatments, cannot be overemphasized. Evidence on the effectiveness of these methods and approaches must provide authorities and governments, as well donors, with the cost-benefit information that would justify the much-needed increment in global support for effective malaria control. ←



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