



Capacity building matters

Defeating Malaria Together

From bricks and mortar to working laboratory

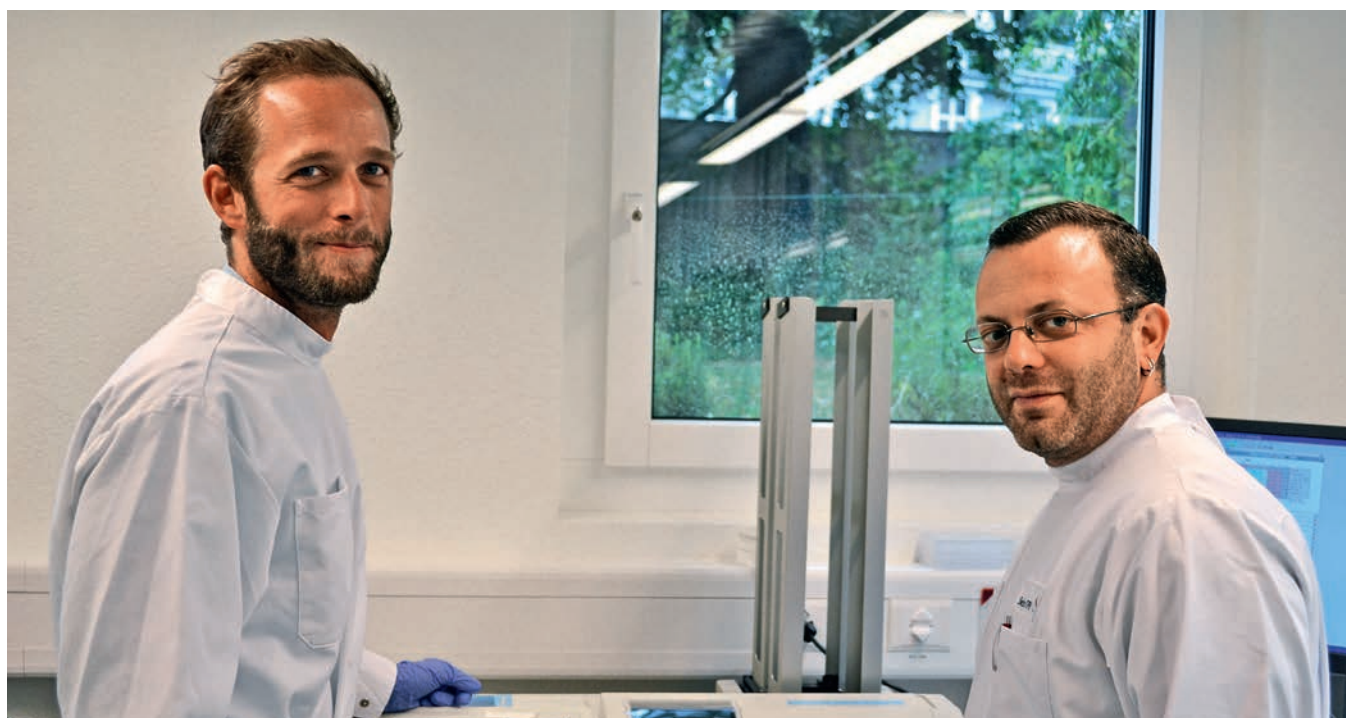
MMV and CSRS partner in Côte d'Ivoire

In early 2013, MMV Research Scientist, Dr Xavier Ding, travelled to Abidjan in Côte d'Ivoire to spend 7 weeks helping Dr Kigabfori Silué and his team at the **Centre Suisse de Recherche Scientifique (CSRS)** to set up a new laboratory. The key scientific goals were twofold. First, to evaluate the current resistance status of available antimalarials¹ in the region, contributing

to global resistance monitoring via the World Wide Antimalarial Resistance Network. Second, to assess the activity of new medicines in development against malaria field isolates (parasites taken directly from the blood of a patient). With the laboratory now up and running, Xavier reflects on his experience.

“Setting up a brand new lab has been one of the most interesting and challenging projects of my career, so far. As I prepared for the challenge, my checklist of supplies seemed to grow more and more every day.”

“We choose to use an **SYBR Green drug assay protocol**. Before my departure, I worked with partners at the **Swiss Tropical and Public Health Institute (Swiss TPH)** to develop and test the protocol. This was really helpful, as it gave me better insight into the technical challenges ahead.”



Left to right: Dr Xavier Ding, MMV and Dr Christian Scheurer, Swiss TPH.



“When I arrived in Abidjan, we literally started from scratch, before getting the science underway, we had a lab to build. The team were really hard-working and enthusiastic, so our lab quickly took shape and we were soon ready begin the first tests.”

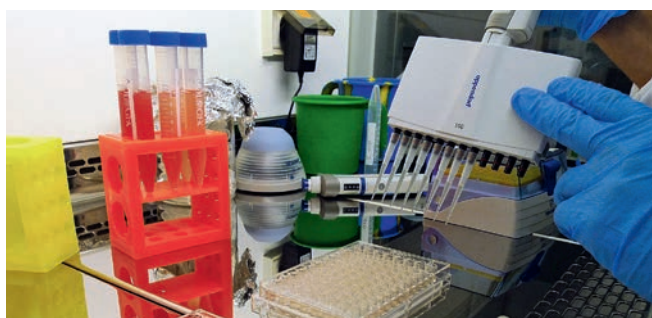
The full story



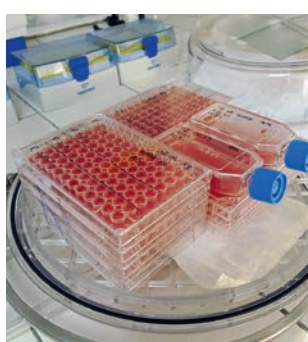
¹ chloroquine, quinine, amodiaquine, artesunate, pyrimethamine, pyronaridine and lumefantrine

“We worked with two local medical centres to ensure staff fully understood the protocol, so that patient blood samples could be used in the study. It was important for patients to understand what their samples would be used for, so they could consent to participate.”

“For me, the most exciting moment of these 7 weeks was the first time we put our plate on the reader and saw positive results. This confirmed that our platform worked! Planning this project was an enormous amount of work, and it took us almost a year to get everything in place. In that one moment, it all felt worthwhile.”



“Now back in Geneva, I continue to work closely with the team in Abidjan. The MMV-CSRS laboratory is fully operational and in the midst of collecting sensitivity data on ex vivo isolates for past and present first-line antimalarial treatments. The next step will be to evaluate MMV's compounds.”



Dr Kigabfori Silué, Centre Suisse de Recherche Scientifique, Abidjan, Côte d'Ivoire



“The CSRS-MMV collaboration is now a reality, in the form of fully functional laboratory to study the chemosensitivity of *P. falciparum*. Realising this lab has been a dream for more than 10 years. It's about reinforcing our capacity against malaria in Sub-Saharan Africa, supporting the work of the National Malaria Control Programme in Côte d'Ivoire and most importantly improving the health of our population.”

MMV takes scientists to Keystone

Ian Bathurst Global Travel Awardees attend international malaria conference

In January 2013, 12 parasitology researchers from malaria-endemic countries received an Ian Bathurst Global Health Travel Award to attend Keystone Symposia's Malaria meeting in New Orleans.

Here are some brief impressions of their experiences at the conference and their impetus to conduct malaria research. Full interviews available at www.mmv.org.

The full interviews



“These days, some people are obsessed by exploring outer space and making it habitable, but poor people on our own planet are still dying of infectious diseases because they are unable to make their immediate environments habitable. For me, it seems immoral for malaria to still be such a major killer in Africa given that it is preventable. I feel an obligation to do something about it.”

Lemu Golassa Woyssa

PhD student, Jimma University, Ethiopia

“Apart from the excitement of the science itself, the implications of our research to save lives via the identification of a new antimalarial has an excitement of its own.”

Sameena Khan

PhD student, International Centre for Genetic Engineering and Biotechnology, India



“I am a young researcher and always keen to learn more and better establish myself in the field. At the meeting, both academia and industry came together, which offered me a glimpse of the different kinds of research going on.”

Sonam Vijay

PhD student, Senior Research Fellow, National Institute of Malaria Research, India



“At the Keystone meeting I had the chance to discuss and compare our data with other researchers with more expertise which has really given my research a boost.”

Simone da Silva Santos

Junior researcher, Fundação Instituto Oswaldo Cruz, Rio de Janeiro, Brazil

“More research is needed to come up with an effective strategy to put the available interventions to better use. This is what motivates me. I think it's really important that scientists who come from affected areas, work with other scientists and the community to ensure these interventions are used correctly and improved upon.”

George Ayodo

Senior Research Officer, Kenya Medical Research Institute-University of Minnesota Malaria Project, Kisumu, Kenya



“After studying for my BSc Laboratory Technology at the University of Cape Coast in Ghana, in 2009, I did my national service in a Health Centre in the Ashanti region of Ghana. At that time, I met a patient, a young woman of 19 who was pregnant and suffering with malaria. She had anaemia and an extremely high parasite count. When I returned the next day, I received the news that she had passed away. It really affected me.”

Augustina Frimpong

MPhil Student, Noguchi Memorial Institute for Medical Research at the University of Ghana