

# Dropping in on African research leaders

by Katherine Nightingale on July 4, 2012



*John Gyapong (left in patterned shirt) and colleagues in Ghana*

*The MRC/UK Department for International Development African Research Leaders (ARL) scheme currently supports three exceptional scientists, mentored by a UK researcher, to undertake high quality research and develop a strong research group in Africa. **Samia Majid**, Operations Manager for Global Infections at the MRC, was part of a team that visited all three African research leaders to see how they are getting along.*

Nine months in the planning and my first trip to Africa, I thought I'd imagined every eventuality for our 10-day trip to Burkina Faso, Ghana and South Africa, the countries where the three African research leaders are based.

But when we met Professor John Gyapong at the School of Public Health at University of Ghana on a bright, blue-skied Friday morning I hadn't envisaged he'd be sporting a traditional shirt boldly patterned with the logo of his university department. Many employers in West Africa, apparently, have cloth printed especially to promote their organisation or company.

John collaborates with Professor Moses Bockarie at the Liverpool School of Tropical Medicine on a project looking into the best way to treat, monitor and hopefully eliminate lymphatic filariasis (elephantiasis) in Africa. The disease is caused by a parasitic worm that is passed on in a mosquito's bite and infects the lymphatic system, part of the circulatory system. John and his four PhD students are looking at different ways to control the disease, trying to understand why people often don't take their drug treatments and using mobile phone technology for data collection.

Before landing in Ghana, we'd spent two days with Professor Shane Norris at the University of Witwatersrand (Wits) in Johannesburg, South Africa. He's working with Professor David Dunger at the University of Cambridge to look at the health and wellbeing of young women and their babies, to understand how factors in early life (even in the womb) affect metabolism and risk of future diseases, such as obesity and high blood pressure. Shane's project includes mothers and babies in both rural Agincourt and urban Soweto.



*Shane Norris (second from left) and the mobile DXA unit*

In bustling Soweto we visited the new Developmental Pathways for Health Research Unit, opened by Shane since receiving his ARL award, with support from the South African MRC and the university. While adults' body composition can be measured non-invasively by a machine called a 'Bod Pod®', the unit has the first 'Pea Pod®' in South Africa, used for babies and infants. In the university car park Shane proudly showed us the unit's new mobile DXA unit, housed in a sparkling white four-wheel-drive truck, which will be used to collect data on people's bone density from the Agincourt site.

Our final stop was French-speaking Burkina Faso, where we headed straight to the town of Bobo Dioulasso to visit Dr Abdoulaye Diabate at the Institut de Recherche en Sciences de la Sante/Centre Muraz. He is working with Dr Frederic Tripet from Keele University on a project looking at the swarming and mating activity of male mosquitoes. They hope that by reducing mosquito reproduction it might be possible to control the spread of malaria.



*Abdoulaye Diabate (second from right) shows the visitors the site of the 'malaria sphere' in Burkina Faso*

Abdoulaye's present research facilities are showing their age and are spread across a number of buildings, but since he received the ARL award he is reconfiguring a suite of 'fit for purpose' labs to study mosquitoes. His institute has also obtained land for Abdoulaye to build a new field research site. This will include West Africa's first malaria sphere — an Eden Project-style bubble that replicates the natural habitat of mosquitoes.

It was heartening to see how the ARL awards are improving facilities, building research teams, and strengthening the relationships between these three promising researchers and colleagues in the UK. I look forward to hearing how the research teams develop — and who knows, maybe I'll be back to see the malaria sphere.