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**INTERVIEW**

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# Clinical trials in neglected tropical diseases: interview with Moses Bockarie

**Moses Bockarie***

"With the increasing momentum to support implementation and more companies coming forward to donate the much needed medicines, transmission interruption will be achieved for many NTDs in the next 10 years."

**Moses Bockarie is the Director of the Centre for Neglected Tropical Diseases (CNTD) in the Liverpool School of Tropical Medicine. Bockarie graduated from Liverpool School of Tropical Medicine (Liverpool, UK) in 1992. Following this, he returned to Sierra Leone to continue his work as a research scientist before moving to the Papua New Guinea Institute of Medical Research, becoming Principal Research Fellow and Head of the Vector Borne Disease Unit in 1996. In 2005, he joined the Center for Global Health and Diseases, Case Western Reserve University, Cleveland (OH, USA) as Visiting Professor, where he continued his research on neglected tropical diseases (NTDs). Bockarie was appointed as Director of the CNTD in 2008 when the center had three staff and an annual program budget of US$700,000. In 5 years, he recruited an additional ten staff and increased the annual program budget to $7 million. Altogether he has won over $50 million in grants since he joined CNTD. He has increased the number of project countries supported from four in 2008 to 12 presently. He directly oversees activities in the 12 project countries working closely with national ministries of health, academic institutions and several implementation partners. He has oversight for the overall program coordination and strategic direction. An internationally experienced NTD specialist, Bockarie has worked in many countries in Africa, Europe, the USA and Pacific region and is a member of the Executive Group of the Global Alliance to Eliminate Lymphatic Filariasis and WHO panel of experts on parasitic infections. He has over 116 publications in peer-reviewed journals.**

**Moses Bockarie spoke to Alice O'Hare, Commissioning Editor, about clinical trials in the field of NTDs.**

**Q** As Director of the Centre for Neglected Tropical Diseases (CNTD) at Liverpool School of Tropical Medicine, what does your role involve?

I am responsible for the strategic direction of an implementation support program for the elimination of lymphatic filariasis (LF) in 12 countries. I directly oversee support for implementation activities in these countries, working directly with national ministries of health, academic institutions and implementation partners including Sightsavers, Schistosomiasis Control Initiative, London CNTD research, USAID and the Task Force for Global Health. When I joined CNTD in 2008, the center had three staff and an annual program budget of US$700,000. In 5 years, I recruited an additional ten staff and increased the annual program budget to $7 million. I increased the number of project countries supported by

*Centre for Neglected Tropical Diseases, Liverpool School of Tropical Medicine, Liverpool, UK
Tel.: +44 151 705 3343
E-mail: moses.bockarie@liv.ac.uk


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CNTD from four in 2008 to 12 in 2010. I also direct the implementation of operational research and capacity development projects in 14 additional countries in Africa, South-East Asia and the Pacific region.

**Q** What led to your research interest in NTDs?

I started my scientific career working as a research assistant in the British Medical Research Council (MRC) laboratory (Bo, Sierra Leone). The MRC laboratory worked mainly on onchocerciasis (river blindness) and very early in my scientific career in Africa, I collaborated with the staff of the Onchocerciasis Control Programme in the planning, implementation and monitoring of disease control activities. The MRC laboratory in Sierra Leone closed in the mid 1990s at the height of the civil war and I went to Papua New Guinea where I worked on LF for 15 years. Before joining CNTD I was a Visiting Professor at Case Western Reserve University in Cleveland (OH, USA), working on several NIH grants for research on NTDs.

**Q** What clinical trials are you currently involved in within this field?

My main role is to support implementation of interventions against NTDs that are amenable to the WHO Strategy of Preventive Chemotherapy. The main strategy is mass drug administration using antihelminthic drugs, including ivermectin, diethylecarbamazine, albendazole and praziquantel, but doxycycline has been shown to also be effective against LF and onchocerciasis. I work closely with Mark Taylor at the Liverpool School of Tropical Medicine who heads the Antiwolbachia Consortium, which conducts clinical trials on the impact of doxycycline on LF and onchocerciasis.

**Q** You have often said that the key to eradicating an NTD is in expanding capacity: can you explain this concept, and its importance, to our readers?

Neglected tropical diseases affect the poorest of the poor living in resource limited countries characterized by low technical and management capabilities, poor communication and health systems. In these settings, capacity strengthening in the management of control programs and impact monitoring will be critical to the success of the elimination efforts. Enhanced capacity is required to support the scaling up of mass drug administration and alternative strategies using an intersectoral approach involving all aspects of the national healthcare systems.

**Q** To what extent would you say limited financial resources have affected the eradication of NTDs?

Limited financial resources to enable a rapid scaling of interventions against NTDs over the past 12 years has prevented many disease-endemic countries from initiating programs for the eradiction of NTDs. The Global Programme to Eliminate LF, one of the most rapidly expanding global health programs in the history of public health, increased MDA coverage for LF from three million people treated in 12 countries in 2000, to more than 539 million in 53 countries in 2011. Nevertheless, 19 LF endemic countries have not yet started MDA. In Africa, only 17 of the 34 endemic countries were implementing MDA in 2011. However, the momentum to support efforts for tackling NTDs continues to grow after the London Declaration of 2012, Uniting to Combat NTDs, when 22 partners including the UK and US governments, the WHO, the Bill & Melinda Gates Foundation, the World Bank and major pharmaceutical companies committed to sustaining and expanding NTD programs to control or eliminate ten NTDs.

**Q** You recently published an article titled 'Toward the elimination of LF by 2020: treatment update and impact assessment for the endgame' [1]. What would you say are the main challenges to ensure that this 2020 target is met?

The main challenge for the next 7 years will be capacity building and mobilizing financial resources needed for a rapid scaleup of interventions. There is continuing need to maintain advocacy for NTD intervention programs and to demonstrate the strong linkages they have with wealth creation. Governments need to recognize NTDs as major public health problems that deserve a specific budget line in the ministries of health's budgets. The existing framework and tools for technical delivery and monitoring and evaluation are adequate for implementation of successful programs.

**Q** You are involved in the European & Developing Countries Clinical Trials Partnership: what are the main aims of this network?

In 2003, the European Parliament and European Council responded to the global health crisis caused by the big three poverty-related diseases of HIV/AIDS, tuberculosis and malaria, forming The European and Developing Countries Clinical Trials Partnership (EDCTP). These diseases account for over 3.5 million deaths each year, with greatest burden in sub-Saharan Africa, where they also impede development and cause

poverty. The main aim of the partnership is to accelerate the development of new or improved drugs, vaccines, microbicides and diagnostics against HIV/AIDS, tuberculosis and malaria, with a focus on Phase II and III clinical trials in sub-Saharan Africa. EDCTP supports multicenter projects that combine clinical trials, capacity building and networking. The aim of integrating these three activities is to ensure that the developed capacity is optimally utilized to successfully conduct the clinical trials in a sustainable way.

**Q** With what research is the network currently involved?

EDCTP supports clinical research and clinical trials for the prevention and treatment of HIV/AIDS, tuberculosis and malaria. The partnership primarily funds Phase II and III clinical trials on the three diseases in sub-Saharan Africa. EDCTP adopts a strategic integrated approach to capacity development and networking thus creating an enabling environment for conducting these trials.

**Q** What do you think has been the biggest advance in the NTD field in the last 5 years?

The adoption of coordinated mapping of multiple NTDs to rapidly complete mapping and start scaling up interventions to achieve national coverage in countries that are yet to initiate mass drug administration. Diagnostic tools for several NTDs have been improved and vector control through the use of long lasting insecticidal nets have been shown to be very effective against the mosquito-borne LF, even in the absence of MDA. We recently published a paper demonstrating that transmission of LF in a highly endemic area can be interrupted after 1 year after the distribution of long lasting insecticidical nets [2].

**Q** How do you see the this field progressing in the future?

The UK Department for International Development and the Bill & Melinda Gates Foundation have provided funding to complete the mapping of all NTDs emendable to preventive chemotherapy by 2015. With the increasing momentum to support implementation and more companies coming forward to donate the much needed medicines, transmission interruption will be achieved for many NTDs in the next 10 years. As we scale down implementation activities in the early starters, the focus will, for the next few years, be on impact monitoring and surveillance activities for early detection of possible resurgence.

### Disclaimer

*All opinions expressed in this interview are those of the interviewee and do not necessarily reflect the views of Future Science Ltd.*

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