Leading health research in West Africa to save lives and improve health across the world

RESEARCH PLATFORMS AND CLINICAL COHORTS:
Represent the basis on which a large proportion of scientific research funded through competitive grants is conducted. They provide an important competitive advantage when submitting research grants, the opportunity to carry out preliminary, exploratory work and to host PhD and career development students. MRCG at LSHTM researchers have equal access to all platforms and cohorts.

HEALTH DEMOGRAPHIC AND SURVEILLANCE SYSTEMS
Supports demographic research, e.g. adult mortality, facilitates identification of clinical casehistory subjects for all research themes, and provides a well-defined denominator for estimating morbidity/mortality rates. It provides an excellent opportunity to investigate important but neglected causes of morbidity and mortality.

WEST AFRICA COLLABORATION
Activates building sharing collaborations links with other West African institutions and has actively organised capacity building activities consisting of short courses, post-graduate training and institutional strengthening, e.g. Regional HIV database system, birth-tracking biobank system and development of a districtal unit at the Laboratories Bacteriologie et Virologie (LBV), Universite Cheikh Anta Diop (UCAD) in Dakar, partly supported also by competitive funding.

CLINICAL RESEARCH
Combines MRCG at LSHTM clinical services, the Sukuta Health Centre often used by the Vaccines & Immunity Theme to carry out clinical trials on vaccines, and the paediatric ward of the Edward Francis Small Teaching Hospital in Banjul. Merging these three different entities has the objective of better coordination for increasing clinical research.

TUBERCULOSIS CASE CONTACT
Has existed since 2001 and provides the ideal framework to identify correlates of protection and of risk in populations who are TB-exposed, infected or diseased. It hosts studies of household transmission dynamics, Biomarker research for diagnosis and treatment responses, and facilitates evaluation of novel diagnostic tests and of genetic and immunological host markers, all of which are required to inform the design of future TB vaccines.

RESEARCH SUPPORT SERVICES

RESEARCH GOVERNANCE & SUPPORT SERVICES:
Created with the aim of better coordinating activities between its different components (clinical trial support, data management and statistics, research development and project management) and thus providing support to investigators to carry out clinical research at the highest possible standards. Research development and project management provides support for negotiating and managing research projects and it’s entirely supported by competitive funds.

LABORATORY SERVICES:
Includes all laboratory activities carried out at MRCG at LSHTM plus the biobank and the biomedical engineering, and it’s essential for producing world-class science. The sterilization and TB lab have successfully achieved full GLQP accreditation and the more stringent ISO 15189 accreditation standards. The increasing number of large scale population-based studies, community interventions and novel genomic approaches requires high-throughput technologies and increased capacity in bioinformatics.
For almost 70 years, the MRCG at LSHTM has tackled major infectious diseases of global public health importance in sub-Saharan Africa by the Medical Research Council Unit (MRCG). The Unit’s mission is to tackle major infectious diseases of global public health importance in sub-Saharan Africa by the Medical Research Council Unit (MRCG).

*WHO WE ARE?*

- To deliver innovative, world-leading research aimed at reducing the burden of disease and improving health in the most socio-economically disadvantaged regions of the world.
- To maintain the trust of all our stakeholders by delivering world-class research that maximises the health and economic impact of our work.

*WHAT WE HAVE ACHIEVED?*

**2008**

**2005**
- Evidence that children who had received widespread vaccination against pneumococcal disease were still protected against early adulthood meningococcal disease.

**2004**
- First efficacy trial of RTS,S malaria vaccine conducted in The Gambia.

**1988**
- Discovery of the first HIV type 1 isolate in Africa in The Gambia.

**1986**
- First efficacy trial of hepatitis B vaccine conducted in The Gambia.

**1964**
- First efficacy study of a live oral polio vaccine (OPV) conducted in The Gambia.

**1949**
- First efficacy study of a live oral polio vaccine (OPV) conducted in The Gambia.

**WHERE WE WORK?**

The Gambia's Extended Programme of Immunisation.

**VACCINES AND IMMUNITY**

The Vaccines & Immunity Theme strives to understand the immunity of vaccines and maximise their impact. Through laboratory science and clinical trials, the theme's aim is to contribute to the production, development and deployment of vaccines. The theme undertakes a series of translational and more fundamental biological studies aiming at understanding the development of the acquired immune response and its control in infancy, particularly in the context of bacterial colonisation and infectious diseases. Its TB research focus identifies the interactions of co-pathogens of adults and children in order to ultimately inform TB vaccine design.

**DISEASE CONTROL AND ELIMINATION**

The Disease Control & Elimination Theme's scientific strategy focuses on investigating the interactions between hosts, pathogens and vectors, and evaluating interventions aimed at interrupting transmission and/or reducing the disease burden. Its research portfolio includes diseases of public health importance in West Africa at different stages of control or elimination, e.g. malaria, bacterial diseases, hepatitis B.

**NUTRITION**

The Nutrition Theme aims at understanding the pathophysiology of diet-disease interactions in order to accelerate the development of more effective next-generation community and clinical interventions. Examples are the studies on the periconceptional diet and the epigenetically-mediated adverse outcomes.

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