Malaria constitutes a major health problem in areas where it is endemic accounting for over 40-45% hospital consultations, 20% hospitalisations and over 1 million deaths in children below 5 years of age. There is considerable development in the search for effective intervention tools which include insecticide treated bed nets, intermittent preventive treatment in pregnancy and in infancy and effective vaccines. These new interventions need to be validated in clinical trials at well characterised trial sites that will provide evidence for their widespread use in disease prevention. The study therefore aims at characterising a potential clinical trial site in Mutengene located in South Western Cameroon with the main objective of providing baseline data required for future intervention studies aimed at validating disease control tools.

Background
Malaria constitutes a heavy burden in endemic areas affecting mostly the vulnerable groups (mothers, children and immunodeficient persons). It exerts heavy economic hardship on an already impoverished community. This has led to the development of new control tools that need to be validated for widespread use. Meanwhile there are limited clinical trial sites with adequate and reliable baseline data and capacity for implementing clinical trials under Good Clinical Laboratory Practice (GCLP) and Good Clinical Practice (GCP) guidelines. There is need therefore to characterise potential clinical trial sites so as to expedite the validation of new control tools.

The problem addressed in the study
There are limited fully characterised and equipped clinical trial sites in Africa empowered to cater for the ever increasing malaria control tools that are being developed. This has put considerable pressure on the existing sites and slowed down the validation rates of new disease control tools. New clinical trial sites are urgently needed to support the existing sites and therefore expedite the development of new disease control tools with a consequent reduction of the disease burden and an improvement in the economic well being of residents of endemic communities.

Objectives
The main objective of the study is to provide data on baseline malariometric parameters valuable for future intervention studies aimed at validating disease control tools. The specific objectives include conducting a population census of the study area, determining the malaria prevalence rates and density in cross sectional surveys, helminth and malaria co-infection rates and densities, number of episodes per year in cohort longitudinal studies, vectors transmitting parasites, their dynamics and inoculation rates, natural immune responses to malaria parasite exposure and prevalence of some genetic traits that protect against malaria.

Results
Preliminary results indicate a malaria and helminth prevalence rates of 16.6% (134/805) and 19.6% respectively. *Plasmodium falciparum* constituted the main malaria parasite transmitted in the study area (97.6%; 120/123) while three cases of *Plasmodium malariae* was detected (2.4%; 3/123). Malaria parasitaemia
was significantly different ($\chi^2 = 50.87, p = 0.0001$) in the different age group and was highest in the children ≤ 10 years of age. The majority of the helminth species infecting the study participants was *Trichuris* and *Ascaris*. Out of the 804 blood samples collected from the study participants from Mutengene, 445 (55.3%) of them were anaemic the majority being moderate to mild anaemia. The average Man Biting Rate for *Anopheles* in the month of September 2010 was 7.5 b/p/n and for August 2010 it was 7.75 b/p/n. *Anopheles gambiae* was the most abundant species among all the *Anopheles* species in Mutengene.

**Networking**

The research team works in close partnership with the HIV/AIDS research group of the University of Buea and institutions in the Central African region within the Central Africa, the Central African Network on TB, HIV/AIDS and malaria (CANTAM) network of excellence collaboration. Furthermore, the project coordinator was selected as full member of the European network of excellence for malaria research (European Virtual Institute for Malaria Research - EVIMalaR), which links centres of excellence in malaria within Europe and some African institutions.

**Relevance to the EDCTP objectives and mission**

The study objectives fall within the EDCTP vision, mission/mandate as it aims at providing valuable data required to develop a potential clinical trial site needed to validate new disease control tools.

**Future perspectives**

The research team looks forward to conducting a clinical trial within the next one year.