



PROJECT TITLE	Factors affecting dynamics of <i>Plasmodium</i> concomitant infections in a malaria endemic area: analysis through a new modelling approach – Refª. PTDC/SAU-EPI/113326/2009
BRIEF DESCRIPTION	This project (and a previous pilot-study) studied a very complete set of samples as both blood samples and mosquitoes were collected in households in two different areas of continental Equatorial Guinea in the two transmission seasons (dry and rainy). The work was carried out by a multidisciplinary team, whose work included the areas of biology, epidemiology, genetics and statistics to comprehensively analyse the local malaria complex system.
OBJECTIVES	The main objectives of the project were: 1) to characterize the parasite populations that were being transmitted between hosts, human and mosquito vector, by identifying <i>Plasmodium</i> species and genotyping of molecular markers associated to diversity and antimalarial drug resistance and 2) to analyse the selective pressures on genes associated to drug resistance, by analysing microsatellite sequences.
IMPLEMENTATION	From this activity resulted four publications in peer-review international journals, namely in PLoS Neglected Tropical Diseases (doi:10.1371/journal.pntd.0001192), Malaria Journal (doi: 10.1186/1475-2875-12-114), Antimicrobial Agents and Chemotherapy (doi:10.1128/AAC.02556-15) and Parasites & Vectors (submitted).
FUNDING AGENCY	Fundação para a Ciência e a Tecnologia (FCT)
DURATION	2012-2015
PRINCIPAL INVESTIGATOR	Ana Paula Arez (GHTM/IHMT)
RESEARCH TEAM / INSTITUTION	<p>Instituto de Higiene e Medicina Tropical/ Global Health and Tropical Medicine, Portugal (Coordinator Institution): Mónica Guerra, Cristina Mendes, Bruno de Sousa, Henrique Silveira, João Pinto;</p> <p>Instituto de Salud Carlos III, Spain: Pedro Berzosa Diaz, Aida de Lucio Calvo, Vicenta Gonzalez Mora;</p> <p>Centro de Referencia para el Control de Endemias, Instituto de Salud Carlos III, Bata, Equatorial Guinea: Nicolas Ndong-Mabale;</p>