



PROJECT TITLE	Microbiota control of protective immunity against malaria – Ref ^a . PTDC/IMI-IMU/5723/2014
BRIEF DESCRIPTION	Malaria's death decreased by 20-25% over the past decade. Nonetheless, malaria eradication is threatened by the inherent capacity of <i>Plasmodium</i> to rapidly evolve drug resistance, giving rise to parasites refractory to anti-malarial drugs. To achieve malaria eradication, it will be necessary to develop a highly efficient vaccine reaching 80-90% protection threshold.
OBJECTIVES	Aims to understand the immune response α -gal when expressed by specific components of the gut microbiota, to develop a protective malaria vaccine.
IMPLEMENTATION	We expect that specific components of gut microbiota to support the “boosting effect” provided by circulating anti- α -gal Abs on the immunogenicity of candidate malaria vaccines in which α -gal is coupled to protein antigens. We are exploring this interplay between microbiota and host immunity to sustain the production of circulating anti- α -gal Abs and in this manner, enhance by an expected 10-100 fold the immunogenicity of malaria vaccines.
FUNDING AGENCY	Fundação para a Ciência e a Tecnologia (FCT)
DURATION	2016-2019
PRINCIPAL INVESTIGATOR	Miguel Soares (PI) (IGC/FCG) Henrique Silveira (GHTM/IHMT)
RESEARCH TEAM / INSTITUTION	Instituto Gulbenkian da Ciência, Fundação Calouste Gulbenkian, Portugal (Coordinator Institution): Miguel Che Soares, Susana Ramos; Instituto de Higiene e Medicina Tropical/ Global Health and Tropical Medicine, Portugal: Joana Gomes;