



Uganda - Translational Research in Malaria

Susceptibility of Ugandan Malaria Parasites to Available Drugs and Experimental Compounds
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Background: Our group performs translational and clinical research on malaria and other infectious diseases in Africa, at UCSF, and at Dominican University of California. The team at includes many additional faculty at UCSF and Makerere University, Uganda, studying different aspects of malaria.

Project Description: Malaria continues to be a tremendous health burden, particularly in Africa. We are interested in drug susceptibility and resistance, including molecular mechanisms of resistance, in the malaria parasite *Plasmodium falciparum*. We study parasites freshly isolated from Ugandan patients to assess sensitivity to a panel of standard antimalarials and compounds now in development as new drugs for malaria that are available from collaborators. When varied sensitivity is seen, as has been the case with a number of compounds, molecular studies assess potential mechanisms of resistance. Other ongoing projects within our group, all translational studies utilizing clinical data and samples from Uganda, include studies of malaria clinical and molecular epidemiology, antimalarial immune responses, malaria diagnostics, and impacts of parasite and host genetic polymorphisms on malaria transmission to mosquitoes.

International Site: Our studies are based in Uganda, with related laboratory studies at UCSF and Dominican University. Clinical and epidemiology studies are conducted at many sites in Uganda. Laboratory studies in Uganda are conducted in our laboratories in Tororo and

Kampala. Most commonly short-term students are linked to laboratory projects, working with a well-established team of Ugandan researchers in Tororo or Kampala and with senior mentors from the US. Please see <http://idrc-uganda.org> for more information on this and other studies.

Required Qualifications: Students currently studying biology or public health. Laboratory experience preferred.