“The Basis of Malaria Transmission-Blocking Vaccines and their Application to Regional Malaria Elimination and Global Eradication”

The epidemiological context of malaria in terms of prevalence of asymptomatic malaria parasitemia is a critical determinant of malaria transmission dynamics in endemic settings. This seminar will: 1) Introduce context of endemic malaria transmission in Amazonia; 2) Describe the natural history of malaria infection in a low transmission region in terms of subpatent parasitemia, relapse (P. vivax), modulation of mosquito infections by human antibody responses and understand the role of subpatent humans in infecting vector mosquitoes. Malaria transmission-blocking approaches will be discussed including a brief history of the discovery of transmission-blocking immunity and discussing new approaches to malaria transmission-blocking vaccine development.