

# 2023 年度 第 3 回 大学院セミナー

Graduate School of Biomedical Sciences Seminar

2023 年 3 月 31 日

分野名 Department (責任者名)(内線)	病原原虫学分野 Dept of Medical Protozoology 責任者名(Osamu Kaneko) 内線(7838)
演題 Title	<b>Phenotypic Resistance in Intra-Erythrocytic <i>Plasmodium</i></b>
講師等 Presenter	Professor Pablo Bifani, PhD  Prof. Bifani obtained his PhD in 2000 from the New York University (Sackler Institute of Graduate Biomedical Sciences), USA on the molecular epidemiology and drug resistance of <i>Mycobacterium tuberculosis</i> . He continued working on tuberculosis at the Pasteur Institute of Lille, France as a postdoctoral fellow (2000) and subsequently as a PI and Europe Scientific Director of Regma/PhageGen, working on TB and Anthrax Phage Therapy and Diagnostics (2001-2004). In 2005, he established the Laboratory of Molecular Pathology of Tuberculosis at the Pasteur Institute of Brussels, Belgium (now the Institute of Public Health). In 2008, he joined the Novartis Institute for Tropical Diseases (NITD), Singapore, where he first led the TB drug discovery "Hit to Lead" team and subsequently in 2011 he established and headed the Malaria Biology team until 2017. Since 2018 he holds joint Professorships with the Department of Microbiology and Immunology, Yong Loo Lin School of Medicine at the National University of Singapore, the Singapore Immunology Network (SigN), A*STAR, and the London School of Hygiene and Tropical Medicine (LSHTM), U.K.
概要 Abstract	Malaria continues to be a major global health burden. Artemisinin-based combination therapies (ACTs) are the recommended therapy for uncomplicated malaria. Unfortunately, artemisinin resistance has been widely reported. Previous studies suggest a dormancy mechanism in the intra-erythrocytic ring stage of <i>P. falciparum</i> could contribute to such treatment failures. We aim to investigate the mechanism behind the dormant-like parasites in intra-erythrocytic <i>Plasmodium</i> parasites. In the process, we determine that various drugs can lead to the identification of dormant rings, highlighting that the pathway is not exclusive to artemisinin. We further determined that dormant rings can also be identified in <i>Plasmodium cynomolgi</i> . We explore whether dormant rings are the product of drug induction, selection, phase variation, a stochastic event or a combination of two or more of the above mentioned possibilities and question whether it could provide a model for the malaria parasite adaptation and evolution.
開催日時 Date & Time	2023 年 4 月 4 日(火) April/4/2023 17:00 ~ 18:00
場所 Face to face	グローバルヘルス総合研究棟 4F 415 室 Global Health Building 4F Room 415
備考 Notes	

- 先端医療科学特論 (基礎編)
- 先端新興感染症病態制御学特論
- 日本語 (Japanese)
- 対面 (Face to face)

- 先端医療科学特論 (臨床編)
- 先端放射線医療科学特論
- 英語 (English)
- オンライン(Online)