

**Research field:**  
**Cooperative Graduate School**  
**(Genome and Environmental Medicine)**

Principal Investigator: Shigeyuki Kano

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URL: [https://www.pco-prime.com/ncgm\\_malaria/index.html](https://www.pco-prime.com/ncgm_malaria/index.html)



**Other Faculty Members**

Associate Professor: Takashi Hamabata (Email address: thama@ri.ncgm.go.jp )

**Major Scientific Interests of the Group**

The objectives of our research in the Department are to advance medical treatments and improve global health by presenting findings in tropical medicine and malaria. The field of tropical medicine has evolved from a discipline defined solely by climate and natural features to a fully developed science that acknowledges the importance of environmental and ecosystem preservation. The significance of tropical medicine is increasingly recognized for its contributions to international health and medical care, which have helped address inequity in health, society, and economy across various countries and regions. Our overarching goal is to achieve effective treatments for these diseases, enhance health outcomes, and contribute to global peace.

**Projects for Regular Students in Doctoral or Master's Programs**

- 1) Research on international medicine of global importance, particularly emerging and re-emerging infectious diseases that require international cooperation for their containment.
- 2) Socio-economic research on human behavior, habitat, population movement, and ecological or environmental factors essential for disease control.
- 3) Research on issues related to achieving the Sustainable Development Goals (SDGs), such as poverty, hunger, malnutrition, education, water safety, gender discrimination, and vaccine or drug production, to advance Universal Health Coverage (UHC).
- 4) Research aimed at eliminating malaria and other important neglected tropical diseases (NTDs) in Laos, based on our satellite laboratory at the Institut Pasteur du Laos.

**Study Programs for Short Stay Students (one week – one semester)**

- 1) Mastering the *in vitro* cultivation of *Plasmodium falciparum* and learning the microscopic diagnosis of the parasite.
- 2) Study tour to the Institut Pasteur du Laos to observe research in malaria epidemiology.

**Selected Publications**

- 1) Jeanne Perpétue Vincent, Alexandre Valcena Existe, Kanako Komaki-Yasuda, Jacques Boncy, Shigeyuki Kano. Performance of the procedure for ultra-rapid extraction and loop-mediated isothermal amplification (PURE-LAMP) method to detect malaria in Haiti. *Infectious Diseases of Poverty* 12(1): 53, 2023
- 2) Emilie Louise Akiko Matsumoto-Takahashi, Takashi Kumagai, Kei Oyoshi, Yoshinobu Sasaki, Yousei Mizukami, Bouasy Hongvanthong, Paul T. Brey, Shigeyuki Kano, Moritoshi Iwagami. Impact of precipitation on the prevalence of schistosomiasis mekongi in Lao PDR: Structural equation modelling using Earth observation satellite data. *One Health* 16: 100563, 2023
- 3) Kanako Komaki-Yasuda, Shigeyuki Kano: The RNA-binding KH-domain in the unique transcription factor of the malaria parasite is responsible for its transcriptional regulatory activity. *18(12): e0296165. PLOS One*, 2023