



Prof. Marcelo Jacobs-Lorena

Professor

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Dr. Marcelo Jacobs-Lorena received the BSc degree from the São Paulo University, Brazil, the MSc degree from the Osaka University, Japan and the PhD degree from the Massachusetts Institute of Technology, USA. He then trained as a postdoctoral fellow at the University of Geneva, Switzerland. From 1977 to 2003 Dr. Jacobs-Lorena was a faculty in the Department of Genetics at Case Western Reserve University in Cleveland, Ohio. It was during this time that he initiated molecular studies on the interaction of the malaria parasite with its vector mosquito. These studies have led to the generation of the first genetically engineered mosquito refractory to the malaria parasite. Since 2003 Dr. Jacobs-Lorena has been a Professor at the Johns Hopkins School of Public Health and Malaria Research Institute in Baltimore, Maryland. Here his research continues to explore the molecular events driving the development of the malaria parasite in his mosquito and mammalian hosts.

His research focuses on the life cycle of the malaria parasite in its obligate mosquito vector. His laboratory was the first to produce a genetically engineered mosquito that is refractory to the parasite. Presently we are exploring an alternative strategy by engineering bacteria that live in the mosquito gut to produce anti-malarial compounds. Other projects in the lab investigate mechanisms of parasite fertilization in the mosquito, mechanisms of sporozoite liver invasion and role of the mammalian fibrinolytic assist Plasmodium in its cycle in the vertebrate and invertebrate hosts.

Dr. Jacobs-Lorena has over 150 publications in peer reviewed journals, has chaired for 6 years the World Health Organization Committee on Molecular Entomology and is on the editorial board of three scientific journals. In 2009 he was elected Fellow of the American Association for Advancement of Science (AAAS) and in 2016 elected Fellow of the American Academy of Microbiology.