Entomological Support for Malaria Vaccine Trials

by

C.P.A. Strome

Biomedical Research Institute
12111 Parklawn Drive
Rockville MD 20852
September 1978

Reproduction in whole or in part is permitted for any purpose of the United States Government.
OBJECTIVES

The objective of the work to be accomplished under the proposed contract is to provide entomological support for controlled trials of the malaria vaccine in human volunteers. This will involve infecting mosquitos with *Plasmodium falciparum*, irradiating infected mosquitos, and separating the sporozoites for vaccination in volunteers.

ABSTRACT

Major progress has occurred during the first year of this contract. A new high security insectary and laboratory for handling mosquitos infected with *Plasmodium falciparum* have been designed and built. Preparations are underway for receiving and processing human blood infected with *P. falciparum* so that it can be preserved in liquid nitrogen for future use in producing gametocyte carriers. An agreement between NMRI and USAMRIID has been signed and the first protocol with *P. falciparum* in human subjects is currently under review by the NMRI Committee for the Protection of Human Subjects. This protocol is designed to provide the infected human blood for subsequent mosquito feeding experiments.

PLANS FOR FUTURE

For all these reasons, it is expected that FY79 will see the first use of this new high security facility for the handling of

78 11 16 056
infected human blood and falciparum-infected mosquitos. Future experiments on gametocyte and sporozoite production, separation, preservation and delivery are planned.
Animal Care & Utilization Report
Entomological Support for Malaria Vaccine Trials
for
ONR Contract N00014-77-C-0766

There were no animals used in this contract to date.

C.P. Strome
**Entomological Support for Vaccine Trials**

Major progress has occurred during the first year of this contract. A new high security insectary and laboratory for handling mosquitoes infected with Plasmodium falciparum has been designed and built. Preparations are underway for receiving and processing human blood infected with P. falciparum so that it can be preserved in liquid nitrogen for future use in producing gametocyte carriers.
An agreement between NMRI and USAMRIID has been signed and the first protocol with P. falciparum in human subjects is currently under review by the NMRI Committee for the Protection of Human Subjects. This protocol is designed to provide the infected human blood for subsequent mosquito feeding experiments.