

ALTERNATIVE INSECTICIDES AND TECHNOLOGIES FOR MALARIA CONTROL

The World Health Organization (WHO) and the London School of Hygiene and Tropical Medicine (LSHTM) Gates Malaria Programme (GMP) have signed a memorandum of understanding on cooperation in a joint programme for development of alternative insecticides and technologies for malaria vector control and personal protection

The seriousness of malaria

Malaria is among the most important communicable diseases worldwide. The global incidence of malaria is estimated to be 300 to 500 million clinical cases each year, with about 90% of these occurring in tropical Africa. Malaria is believed to kill more than 1 million people per year, of whom the majority are children under the age of 5 years in Africa. Malaria is also a serious health problem in frontier areas of economic development and in countries affected by social disruption. In Africa, it has been estimated that malaria causes an annual loss of economic growth of 1.3%.

Vector control

Vector control plays a significant role in the strategy for prevention of malaria, and chemical control remains the most important element in the integrated approach to vector control. However the number of safe and cost-effective insecticides are becoming fewer. This is due mainly to the development of resistance of major malaria vectors to common insecticides, as well as abandonment of older compounds that no longer meet safety or environmental requirements.

The WHO Pesticide Evaluation Scheme (WHOPES)

WHOPES was set up in 1960 to promote and co-ordinate the testing and evaluation of pesticides for public health. It functions through the participation of representatives of governments, manufacturers of pesticides and pesticide application equipment, WHO Collaborating Centres and research institutions, as well as other WHO Programmes, notably the Chemical Safety.

Need for alternative insecticides

Economic constraints have also limited industrial investment in research and development into novel insecticides and their application for vector control. Mergers within the agro-chemical industry in the last decade have led to loss of vector control expertise in the private sector and the industry has become less responsive to the needs of malaria control. Nevertheless selective use of existing insecticides and development of new application technologies will become increasingly important during the next decade in order to maintain effective malaria vector control activities.

The Gates Malaria Programme (GMP)

GMP is a 5 year programme, funded by the Bill and Melinda Gates Foundation and co-ordinated by the London School of Hygiene and Tropical Medicine, whose goal is to develop innovative approaches for the control of malaria, particularly in Africa, by:

- Promoting research into new interventions.
- Developing capacity of those involved in the advocacy, prevention, and management of malaria.
- Harnessing knowledge and putting control strategies into action

Specific research objectives include the evaluation of:

- New methods of killing, repelling, and controlling mosquitoes
- New antimalarials and combinations of antimalarials
- Vaccines
- Impact of interventions at a community level

<http://www.lshtm.ac.uk/gmp/Gateshome.html>

Invitation to industry

Industry is therefore invited to submit potential compounds and application technologies for consideration and testing for malaria vector control, especially those already developed and marketed for non vector control applications. Priority will be given to treatment of mosquito nets and indoor residual spraying. Twice a year, WHO/LSHTM would review the applications and the supported documents provided by industry and would consider with the manufacturer joint funding of the testing and development of the product for malaria vector control. Appropriate measures will be taken to safeguard confidential and proprietary data and information.

For more information, application procedure and secrecy agreement, contact Dr Morteza Zaim, WHO Pesticide Evaluation Scheme, Communicable Disease Control, Prevention and Eradication, World Health Organization, 1211 Geneva 27, Switzerland (email: zaimm@who.ch) or Dr Mark Rowland at the London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK (email: Mark.rowland@lshtm.ac.uk).