

NSTDA announces a future collaboration with the Medicines for Malaria Venture on a novel antimalarial drug-compound, P218

Bangkok, 21 April 2014. The National Science and Technology Development Agency, NSTDA's research team announces a future collaboration with Medicines for Malaria Venture (MMV), a Switzerland-based not-for-profit malaria drug research organization, to engage in preclinical evaluation of P218, a promising new antimalarial compound. The announcement was made to mark World Malaria Day 2014 and is aligned with its theme: "*Invest in the Future, Defeat Malaria*", which highlights the need for investment in research and development for new health technology and tools to fight malaria.

The World Health Organization has designated April 25th of each year to commemorate World Malaria Day to highlight the global malaria burden. More than 200 million people suffer from malaria each year. Children are most vulnerable as 77% of the 627,000 malaria deaths that occurred annually are children under 5 years of age. Leading experts are concerned that malaria incidence is set to rise in the future and greater numbers will be harder to treat as the effectiveness of current drugs are compromised due to the emergence and spread of drug-resistant malaria strains. Scientists have also pointed to the links between climate change and increase in outbreaks of mosquito-borne diseases such as malaria.

The announcement of this collaboration will be the highlight of the upcoming "World Malaria Conference 2014" to be held on May 1st, 09.00-12.00h at the Century Park Hotel, Bangkok. The Conference will include presentations by leading Thai and MMV scientists including Dr. Tim Wells, Chief Scientific Officer/MMV, Professor Dr. Srivicha Krusood, Faculty of Tropical Medicine/ Mahidol University, and Dr. Yongyuth Yuthavong, Expert Senior Researcher/NSTDA. Topics will include an overview of the malaria drug development pipeline, the discovery and development of the antimalarial compound P218, and current trends in malaria treatment. In addition, the conference will feature NSTDA's own malaria research portfolio under the National Center for Genetic Engineering and Biotechnology (BIOTEC) and the National Nanotechnology Center (NANOTEC).

Discovered by the Thai research team led by Dr. Yongyuth Yuthavong, Expert Senior Researcher at NSTDA/BIOTEC, together with MMV, Monash University and the London School of Hygiene and Tropical Medicine, the patented P218 compound was designed based-on 3-dimensional structures of malaria protein targets in order to circumvent mutations that had led to resistance to pyrimethamine, a well-tolerated and previously effective drug for treatment of malaria.

Laboratory results conducted at BIOTEC and MMV's partner institutions have confirmed that the patented design of P218 can kill both normal and pyrimethamine-resistant parasites.

The objective of the NSTDA-MMV collaboration will be to gather evidence at international GLP standards for the use of P218 in humans. If successful, it will be Thailand's first example of a compound of novel design to enter clinical trials and will mark a great leap forward in the country's drug research and discovery program.

"It is exciting to see far-sighted partners like NSTDA share our commitment," said Dr Tim Wells, CSO at MMV. "Their prioritization of the control and elimination of malaria as a national goal and their support of the development of a novel compound like P218, will be an impressive example for other endemic-countries to follow."

As we commemorate World Malaria Day on April 25th, we are reminded of the enormous burden that malaria has on the most innocent and vulnerable people. A child dies from malaria every 60 seconds; a solemn statistics that motivates scientists at NSTDA to discover new cures for malaria.

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Press Contact:

National Center for Genetic Engineering and Biotechnology (BIOTEC)

Ms. Udomrat Vatanakun

Head of Public Relations Section

Tel: (66-2) 564 6700 Ext 3324

Fax: (66-2) 564 6572

E-mail: udomrat.vat@biotec.or.th