



MalariaWorld Nr. 124 (9 July 2007)

Do you have an announcement that you would like us to circulate in the malaria research community through our weekly MalariaWorld?

Please send a message to: Ingeborg van Schayk, Editor in Chief inga@aon.at

To subscribe/unsubscribe to MalariaWorld send an e-mail to inga@aon.at

... PUBLICATIONS ...

Epidemiological factors that promote the development of severe malaria anaemia in children in Ibadan (Open access)

Chiaka I Anumudu, Christian MF Okafor, Victor Ngwumohaike, KA Afolabi, Roseangela I Nwuba and Mark Nwagwu

Afr Health Sci. 2007 Jun;7(2):80-5

The study underscores the need for community involved partnership for malaria control especially through health education for the home management of malaria, especially among those experiencing some form of inequity in access to healthcare.

Effect of HIV-1 infection on malaria treatment outcome in Ugandan patients (Open access)

Pauline Byakika-Kibwika, Edward Ddumba and Moses Kanya

Afr Health Sci. 2007 Jun;7(2):86-92

Adherence to cotrimoxazole prophylaxis should be reinforced in HIV positive patients and it should be reassessed if these patients present with acute episodes of malaria.

A pre-PEXEL histidine-rich protein II erythrocyte binding peptide as a new way for anti-malarial vaccine development (Subscription required)

Gladys Cifuentes, Manuel Elkin Patarroyo, Claudia Reyes, Jimena Córtes and Manuel Alfonso Patarroyo

Biochemical and Biophysical Research Communications, Volume 360, Issue 1, 17 August 2007, Pages 149-155

Modifications in conserved HABPs preceding PEXEL motifs thus open up new avenues for subunit-based, multi-component synthetic anti-malarial vaccine development.

Design of a two-level adaptive multi-agent system for malaria vectors driven by an ontology (Open access)

Koum GD., Yekel AD., Ndifon B, Etang JD., Simard FD.

BMC Medical Informatics and Decision Making 2007, 7:19 (2 July 2007)

Our approach is an intelligent one which differs from statistical approaches that are sometimes used in the field. This intelligent approach aligns itself with the distributed artificial intelligence. In terms of fight against malaria disease our system offers opportunities of reducing efforts of human resources who are not obliged to cover the entire territory while conducting surveys. Secondly the AMAS can determine the presence

or the absence of malaria vectors even when specific data have not been collected in the geographical area. In the difference of a statistical technique, in our case the projection of the results in the field can sometimes appeared to be more general.

News: Malaria control depends on free bed nets Malaria control depends on free bed nets (Subscription required)

BMJ 2007;335:17 (7 July),

An international trio of experts have called on donor agencies to stop selling insecticide treated bed nets to African populations at risk of malaria and to start giving them away instead.

The quest to be free of malaria (Open access)

May Meleigy

Bulletin of the World Health Organization, Volume 85, Number 7, July 2007

The United Arab Emirates (UAE) was recently declared officially free of malaria after years of efforts to control the disease. Other countries across WHO's Eastern Mediterranean Region are making progress, but there are still pockets of resistance.

Cytoadherence and Genotype of Plasmodium falciparum Strains from Symptomatic Children in Franceville, Southeastern Gabon

(Open access)

Fousseyni S. Touré, Odile Ouwe-Missi-Oukem-Boyer, Jérôme Mezui-Me-Ndong, Guy Roger Ndong-Atome, Ulrick Bisvigou, Dominique Mazier, and Sylvie Bisser

Clinical Medicine and Research 2007 5: 106-113

These results suggested that infection of the same individual by multiple clones of *P. falciparum* does not significantly influence PRBC cytoadherence or disease severity and confirmed the predominance of the MSP-1 K1 genotype in southeastern Gabon.

Letter: Chloroquine-Resistant Plasmodium vivax, Brazilian Amazon

(Open access)

F.S.F. Filho et al.

Emerging Infectious Diseases, Volume 13, Number 7–July 2007

We believe our findings are important and merit the attention of local public health authorities. Considering the possibility of emerging underestimated *P. vivax* CQ resistance in Manaus, we feel it is essential to quickly clarify whether such documented resistance can copromote vivax malaria outbreaks in malaria-endemic areas within the Amazon.

Artesunate–amodiaquine for the treatment of uncomplicated malaria (Subscription required)

Sodiomon Bienvenu Sirima, Adama GansanéPharmD

Expert Opinion on Investigational Drugs, Jun 2007, Vol. 16, No. 7, Pages 1079-1085

A prequalification dossier of this fixed combination has been submitted to the WHO. This new co-formulation will almost certainly increase its effectiveness by improving drug compliance.

Clinical brief: Symmetric peripheral gangrene with mixed malaria

(Open access)

Agrawal A, Rastogi A, Tiwari D

Indian J Pediatr. 2007 Jun;74(6):587-8

Symmetric peripheral gangrene (SPG) in a case of mixed malaria (*P. falciparum* and *P. vivax*) is a rare and relatively unknown complication of malaria. We report a case of 10-yr-old female with mixed malaria infection and SPG (Symmetric Peripheral Gangrene) of foot, which is most likely due to interaction between parasite factors (*P. Falciparum* and *P. vivax*) and host factors.

Associations between α^+ -Thalassemia and Plasmodium falciparum Malarial Infection in Northeastern Tanzania (Subscription required)

Anders Enevold, Michael Alifrangis, Juan J. Sanchez, Ilona Carneiro, Cally Roper, Claus Børsting, John Lusingu, Lasse S. Vestergaard, Martha M. Lemnge, Niels Morling, Eleanor Riley, and Chris J. Drakeley

The Journal of Infectious Diseases 2007;196:451-459

In this malaria-endemic region of Tanzania, α^+ -thalassemia is common and clearly associated with *P. falciparum* transmission intensity. There was no evidence of population substructuring, and the results are suggestive of selection of the $\alpha^{3.7}$ allele by malaria.

Levamisole Inhibits Sequestration of Infected Red Blood Cells in Patients with Falciparum Malaria (Subscription required)

Arjen M. Dondorp, Kamolrat Silamut, Prakaykaew Charunwatthana, Sunee Chuasuwanchai, Ronnatrai Ruangveerayut, Somyot Krintratun, Nicholas J. White, May Ho, and Nicholas P. J. Day

The Journal of Infectious Diseases 2007;196:460-466

These findings strongly suggest that levamisole decreases iRBC sequestration in falciparum malaria in vivo and should be considered as a potential adjunctive treatment for severe falciparum malaria.

A Novel Plasmodium falciparum Expression System for Assessing Antifolate Resistance Caused by Mutant P. vivax Dihydrofolate Reductase–Thymidylate Synthase (Subscription required)

Michael T. O'Neil, Michael L. J. Korsinczky, Karryn J. Gresty, Alyson Auliff, and Qin Cheng

The Journal of Infectious Diseases 2007;196:467-474

Modeling of both *P. vivax* and *P. falciparum* DHFR quadruple mutants suggests that mutations unique to *P. vivax* DHFR are responsible for differences seen in parasite susceptibility to antifolates.

Malaria, Tuberculosis, and HIV/AIDS (Subscription required)

Terri Clark and Laura Fitzgerald

Journal of Midwifery & Women's Health, Volume 52, Issue 4, July-August 2007, Pages e33-e35

This is a guide to the Web links that post the most current available information on malaria, tuberculosis, and HIV/AIDS, plus frequently updated Web sites for preventing occupational and travel exposures to infectious diseases. It is intended to assist providers caring for diverse populations domestically, as well as for those with an eye towards international work. The guide also recommends recent textbooks, which may be useful when internet access is minimal or nonexistent. It concludes with general readings about the root causes of global health issues and health professional education disparities, along with possible solutions to close the profound divide between the developed and developing world.

Axonal and astrocyte injury markers in the cerebrospinal fluid of Kenyan children with severe malaria (Subscription required)

Isabelle M. Medana, Richard Idro and Charles R.J.C. Newton

Journal of the Neurological Sciences, Volume 258, Issues 1-2, 15 July 2007, Pages 93-98

This study provides evidence that axonal injury is associated with malaria coma and identifies the potential role of severe anaemia, acidosis and hyperparasitaemia to causing brain parenchymal damage in children with malaria.

A major genetic locus controlling natural Plasmodium falciparum infection is shared by East and West African Anopheles gambiae

(Open access)

Michelle M Riehle, Kyriacos Markianos, Louis Lambrechts, Ai Xia, Igor Sharakhov, Jacob C Koella, Kenneth D Vernick

Malaria Journal 2007, 6:87 (6 July 2007)

Detection of a malaria-control locus at the same chromosomal location in both East and West African mosquitoes indicates that the same mechanism of Plasmodium-resistance, or a mechanism controlled by the same genomic region, is found across Africa, and thus probably operates in *A. gambiae* throughout its entire range.

Antibodies elicited in adults by a primary Plasmodium falciparum blood-stage infection recognize different epitopes compared with immune individuals

(Open access)

Damon P Eisen, Lina Wang, Helene Jouin, E Elsa H Murhandarwati, Casilda G Black, Odile Mercereau-Puijalon, Ross L Coppel

Malaria Journal 2007, 6:86 (2 July 2007)

The study looks at the initial antibody responses following a malaria infection in previously healthy adults. The response is short-lived and is not as isotype-skewed as the response observed in semi-immunes living in malaria-endemic areas.

Self-reported use of anti-malarial drugs and health facility management of malaria in Ghana

(Open access)

Kwame O Buabeng, Mahama Duwiejua, Alex NO Dodoo, Lloyd K Matowe, Hannes Enlund

Malaria Journal 2007, 6:85 (2 July 2007)

The inappropriate use of anti-malarials in the community is high. 66% of the patients who had used antimalarial drugs prior to attending the health facilities, used the drugs inappropriately. There is need for enhanced public health education on home-based management of malaria.

Effect of chloroquine on gene expression of Plasmodium yoelii nigeriensis during its sporogonic development in the mosquito vector

(Open access)

Henrique Silveira, Susana Ramos, Patricia Abrantes, Luis Filipe Lopes, Virgilio E do Rosario, Mitchell S Abrahamsen

Malaria Journal 2007, 6:84 (2 July 2007)

Chloroquine increases parasite load in mosquito salivary glands and interferes with the expression of at least two Plasmodium genes. The transcripts identified contain putative signal peptides and transmembrane domains suggesting that these targets of chloroquine are involved in cell trafficking and recycling.

Understanding and improving access to prompt and effective malaria treatment and care in rural Tanzania: the ACCESS

Programme (Open access)

Manuel W Hetzel, Nelly Iteba, Ahmed Makemba, Christopher Mshana, Christian Lengeler, Brigit Obrist, Alexander Schulze, Rose Nathan, Angel Dillip, Sandra Alba, Iddy Mayumana, Rashid A Khatib, Joseph D Njau, Hassan Mshinda

Malaria Journal 2007, 6:83 (29 June 2007)

The ACCESS programme covers a wide range of different activities, including social marketing for improved care-seeking at community level as well as strengthening of quality of care at health facilities, as well as improve the performance of drug stores. In addition, a comprehensive set of monitoring and evaluation activities measuring the programme performance and health impact.

Transmission model of endemic human malaria in a partially immune population (Subscription required)

C. Chiyaka, W. Garira and S. Dube

Mathematical and Computer Modelling, Volume 46, Issues 5-6, September 2007, Pages 806-822

A new transmission model of human malaria in a partially immune population with three discrete delays is formulated for variable host and vector populations.

Numerical simulations support our analytical conclusions and illustrate possible behaviour scenarios of the model.

Clonal diversity of a lizard malaria parasite, *Plasmodium mexicanum*, in its vertebrate host, the western fence lizard: role of variation in transmission intensity over time and space (Subscription required)

A. M. Vardo and J. J. Schall

Molecular Ecology, Volume 16 Issue 13 Page 2712-2720, July 2007

The results are similar to those reported for the human malaria parasite, *Plasmodium falciparum*, worldwide, and support the conclusion that malaria parasites maintain high genetic diversity in host populations despite the potential for loss in alleles during the transmission cycle or during periods/locations when transmission intensity is low.

In brief: Malaria (Subscription required)

Nature Reviews Drug Discovery 6, 520 - 520 (01 Jul 2007)

Malaria-infected mice are cured by a single dose of novel artemisinin derivatives. Posner, G. H. et al. *J. Med. Chem.* 50, 2516-2519 (2007) There is a need for new low-cost effective therapies for drug-resistant malaria.

Plasmodium Strain Determines Dendritic Cell Function Essential for Survival from Malaria (Open access)

Wykes MN, Liu XQ, Beattie L, Stanisic DI, Stacey KJ, et al.

PLoS Pathogens, Vol. 3, No. 7. (1 July 2007), e96

This study offers some insight into the current controversy and offers a plausible explanation for differences in the severity of disease.

Life cycle transcriptome of the malaria mosquito *Anopheles gambiae* and comparison with the fruitfly *Drosophila melanogaster* (Subscription required)

Anastasios C. Koutsos, Claudia Blass, Stephan Meister, Sabine Schmidt, Robert M. MacCallum, Marcelo B. Soares, Frank H. Collins, Vladimir Benes, Evgeny Zdobnov, Fotis C. Kafatos, and George K. Christophides

PNAS 2007104: 11304-11309

In addition to providing a comprehensive view of temporal and spatial gene expression during the *A. gambiae* life cycle, this large-scale comparative transcriptomic analysis has detected important evolutionary features of insect transcriptomes.

Synthesis, characterization and antimalarial activity of new iridium-chloroquine complexes (Subscription required)

Maribel Navarro, Sara Pekerar and Hilda A. Pérez

Polyhedron, Volume 26, Issue 12, 23 July 2007, Pages 2420-2424

Chloroquine base (CQ) reacts with $[\text{Ir}(\text{COD})\text{Cl}]_2$ and $\text{IrCl}_3 \cdot 3\text{H}_2\text{O}$ to yield of $\text{Ir}(\text{CQ})\text{Cl}(\text{COD})$ (1) and $\text{Ir}_2\text{Cl}_6(\text{CQ}) \cdot 3\text{H}_2\text{O}$ (2), respectively. Reaction of $[\text{Ir}(\text{COD})\text{Cl}]_2$ with CQ in the presence of NH_4PF_6 led to $[\text{Ir}(\text{CQ})(\text{Solv})_2]\text{PF}_6$ (3). The three new

iridium–CQ complexes were characterized by a combination of elemental analysis, IR and NMR spectroscopies and evaluated in vitro against *Plasmodium berghei*. Comparison of the IC50 values obtained with the experimental compounds with that determined for chloroquine diphosphate indicated a higher activity for complex 2, while complexes 1 and 3 showed a similar and lower activity, respectively.

Empowering the initiation of a prevention strategy to combat malaria in Papua New Guinea (Open access)

Fitzpatrick J, Ako WY

Rural and Remote Health 7, 2007: 693

The project has led to a significant decrease in the incidence malaria-related mortality and morbidity in the village.

The dog that did not bark: malaria vaccines without antibodies

(Subscription required)

D. Gray Heppner, Robert J. Schwenk, David Arnot, Robert W. Sauerwein and Adrian J.F. Luty

Trends in Parasitology, Volume 23, Issue 7, July 2007, Pages 293-296

We envision that a highly protective pre-erythrocytic vaccine will likely be based upon a heterologous prime-boost regimen that induces both appropriate T-cell responses as well as robust and protracted antibody production.

CLIP proteases and Plasmodium melanization in Anopheles gambiae (Subscription required)

Carolina Barillas-Mury

Trends in Parasitology, Volume 23, Issue 7, July 2007, Pages 297-299

The role of several CLIP as key activators or suppressors of the melanization responses of *Anopheles gambiae* to *Plasmodium berghei* (murine malaria) has been established recently using a genome-wide reverse genetics approach. Important differences in regulation of PO activation between *An. gambiae* strains were also identified. This review summarizes these findings and discusses our current understanding of the *An. gambiae* melanization responses to *Plasmodium*.

Virulence and resistance in malaria: who drives the outcome of the infection? (Subscription required)

Thierry Lefèvre, Marta Sanchez, Fleur Ponton, David Hughes and Frédéric Thomas

Trends in Parasitology, Volume 23, Issue 7, July 2007, Pages 299-302

Recently, Grech *et al.* investigated the effects of host genotype-by-parasite genotype interactions on the expression of virulence in an artificial rodent-malaria system. They found that both parasite and host effects explained most of the variance in the virulence, resistance and transmission potential. These findings are a major contribution to the emerging debate on the pros and cons of a coevolutionary approach of virulence evolution; they also hold great potential for more effective control strategies.

Erratum: Plasmodium vivax in Africa: hidden in plain sight?:

Trends Parasitol. 23 (2007) 193–196 (Subscription required)

Trends in Parasitology, Volume 23, Issue 7, July 2007, Page 304

No abstract available

The malaria parasite type II NADH:quinone oxidoreductase: an alternative enzyme for an alternative lifestyle (Subscription required)

Nicholas Fisher, Patrick G. Bray, Stephen A. Ward and Giancarlo A. Biagini

Trends in Parasitology, Volume 23, Issue 7, July 2007, Pages 305-310

The operation of a type II NADH:quinone oxidoreductase (PfNDH2), also known as alternative Complex I, in the mitochondrion of the human malaria parasite, *Plasmodium falciparum*, has recently been described. Unlike the Complex I of typical mitochondria, type II NADH:quinone oxidoreductases do not have transmembrane domains and are not involved directly in proton (H⁺) pumping. Here, we present a predictive model of PfNDH2, describing putative NADH-, flavin- and quinone-binding sites, as well as a possible membrane 'anchoring' region. In addition, we hypothesize that the alternative Complex I is an evolutionary adaptation to a microaerophilic lifestyle enabling (proton) uncoupled oxidation of NADH. This adaptive feature has several advantages, including: (i) a reduction of proton 'back-pressure' in the absence of extensive ATP synthesis; (ii) a reduction of mitochondrial superoxide generation; and (iii) a mechanism for the deregulated oxidation of cytosolic NADH.

Is PfCRT a channel or a carrier? Two competing models explaining chloroquine resistance in *Plasmodium falciparum* (Subscription required)

Cecilia P. Sanchez, Wilfred D. Stein and Michael Lanzer

Trends in Parasitology, Volume 23, Issue 7, July 2007, Pages 332-339

Current models suggest that mutated PfCRT acts either as a channel or a transporter of CQ, enabling CQ to leave the digestive food vacuole of the parasite, in which the CQ accumulates. Here, we review the pros and cons of the carrier and transporter models in light of recent developments in the field.

Enhanced antibody production in mice to the malaria antigen AMA1 by CPG 7909 requires physical association of CpG and antigen (Subscription required)

Gregory E.D. Mullen, Joan A. Aebig, Gelu Dobrescu, Kelly Rausch, Lynn Lambert, Carole A. Long, Aaron P. Miles and Allan Saul

Vaccine, Volume 25, Issue 29, 20 July 2007, Pages 5343-5347

Our results suggest that the adjuvant effects of CpGs are optimal when adsorbed to Alhydrogel and highlight the need for careful characterization of the vaccine formulation.

A phase I/IIa safety, immunogenicity, and efficacy bridging randomized study of a two-dose regimen of liquid and lyophilized formulations of the candidate malaria vaccine RTS,S/AS02A in malaria-naïve adults (Subscription required)

Kent E. Kester, Denise A. McKinney, Nadia Tornieporth, Christian F. Ockenhouse, D. Gray Heppner Jr., Ted Hall, Bruce T. Wellde, Kate White, Peifang Sun, Robert Schwenk, *et al.*

Vaccine, Volume 25, Issue 29, 20 July 2007, Pages 5359-5366
The two formulations of RTS,S were equally safe and immunogenic, and the lyophilized formulation showed similar levels of efficacy against sporozoite challenge to that conferred by the liquid formulation in previous studies.

... REPORT ...

"Methods in *Anopheles* Research" Manual Now Available

From Mark Q. Benedict, MBenedict@cdc.gov: 1-770-488-4987

The NIAID-sponsored Malaria Research and Reference Reagent Resource Center (MR4, www.mr4.org) is pleased to announce the availability of the new manual "Methods in *Anopheles* Research." This 238-page compilation of laboratory methods and advice combines information previously presented on the web site and now with expanded and revised content. It is free for downloading, in part or whole, from the MR4 web site under

the menu selection "Anopheles info" then "Training&Methods". The manual is designed to provide complete lists of materials and protocols for several common techniques used in the MR4 vector activities and elsewhere. It contains anopheline-specific information but does not contain molecular techniques of a generic nature. Subjects include dissection techniques, insecticide-resistance assays, species identification by PCR and general anopheline culture.

The MR4 welcomes appropriate voluntary contributions and revisions to the manual. If you would like to add sections on techniques in which you have expertise, please contact Mark Benedict at MBenedict@cdc.gov.

--- GRANTS & RESEARCH OPPORTUNITIES ---

Call for Applications for the Award of Research Training Grants - 2008

Applications deadline: 15 November 2007

The UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) invites applications for the award of Research Training Grants (RTG) from individuals who are nationals of, and employed in, least developed disease endemic countries (LDC) and developing disease endemic countries (DEC) with lesser developed research capacities. RTGs are awarded, on a competitive basis, for studies leading to a postgraduate degree, or for acquiring specialized skills.

[More information](#)

--- NEWS ---

• 6 July 2007, the Monitor

Uganda: Chroloquine to Be Phased Out

In an effort to strengthen the fight against malaria in the country, the National Drug Authority has resolved to phase out anti-malarial drugs that have high resistance against the disease.

• 5 July 2007, GlobalHealthReporting.org

Expanding ITN Coverage to All Age Groups, Populations in Africa Could Improve Malaria Control Efforts, Study Says

Malaria control efforts in Africa could be improved if older children and adults on the continent have access to subsidized insecticide-treated nets, according to a recent study, the Northern Echo reports (Northern Echo, 7/3).

• 5 July 2007, Times of India

Malaria cases in June lowest in 4 yrs

It is still unclear what kind of a dengue outbreak Delhi is going to witness this year, but there is good news on the malaria front.

• 4 July 2007, ScienceDaily

Key To Tackling Malaria May Lie In Bed Nets For Adults And Older Children

Protecting older children and adults with insecticide-treated bed nets may be an effective way to combat malaria, a study has shown. The research, published today in the open access journal PLoS Medicine, suggests that protecting half of all older children and adults would also protect the wider community from malaria, which kills over one million people each year.

• 4 July 2007, Central Chronicle

India: Jhabua in grip of malaria

With the heavy rain fall in the district, water borne disease are spreading in the area rapidly.

• 4 July 2007, NewKerala.com

Malaria outbreak likely in Gujarat: Minister

If preventive steps are not taken immediately by the State government, an outbreak of malaria is likely in Gujarat, said Union Minister of State for Planning M V Rajasekharan.

• 4 July 2007, Daily Times

China donates drugs to fight malaria

Chinese government has donated anti-malarial drugs worth Rs8.25 million to Pakistan for control of the disease among the most vulnerable and marginalised strata of the society.

• 4 July 2007, the Indian Express

Malaria and rethink on DDT open up Africa for a PSU

After being outlawed for almost four decades, DDT is making a comeback in the world as one of the most effective agents of malaria control — and this has translated to good business for India.

• 3 July 2007, oHeraldo

India: 14 malaria cases so far detected in Canacona

The Canacona Community Health Centre (CHC) has already detected 14 malaria cases, as tests continue on suspected patients with symptoms of this feared virus spread by infected mosquitoes.

• 3 July 2007, the Hindu

Tanzania identifies new malaria-spreading mosquito variety

A Tanzanian university has claimed to have identified a new variety of malaria-transmitting mosquito in eastern Tanzania.

• 2 July 2007, UN News Service

Liberia: Unicef Donates Anti-Malaria Drugs to the Government

The United Nations Children's Fund (UNICEF) and France have donated nearly \$400,000 worth of anti-malaria drugs to Liberia in a move immediately welcomed by the Government.

• 2 July 2007, Reuters

Kenya: Social awareness key to malaria control efforts

Amina Nyamawi returned her mosquito net to the health centre as word spread across Karimbo village in the Kilifi district of Kenya's Coast province that the nets were linked to evil spirits.

• 2 July 2007, GlobalHealthReporting.org

Researchers in Tanzania Identify New Malaria-Carrying Mosquito

Scientists at Open University in Tanzania recently announced that they have identified a new type of malaria-carrying mosquito in the eastern part of the country, Xinhua News Agency reports (Xinhua News Agency, 7/2).

• 1 July 2007, the Standard

African Examples: Anti-malaria envoy and renowned musician

When the United Nation's Children Fund (Unicef) sought her help to bring international attention to the number one killer of children in Africa, she accepted the challenge.

• 29 June 22007, United States Department of State

Africa: Genetic Research On Insects Could Lead to Disease Prevention

U.S. scientists have created a genetically modified malaria-resistant mosquito that one day could be introduced in natural settings, outbreed ordinary "wild-type" mosquitoes and reduce the spread of malaria in humans.

• 29 June 2007, PRWeb

Nothing But Nets and MLS W.O.R.K.S. Team Up to Fight Malaria

Nothing But Nets, a grassroots campaign to prevent malaria by providing insecticide-treated bed nets, announced today that Major League Soccer's MLS W.O.R.K.S. has joined the fight against malaria.

• 29 June 2007, Reuters

Fighting Malaria in Darfur: Malteser International distributes 6000 mosquito nets

In May and June, Malteser International distributed 6000 mosquito nets in the crises region of North Darfur.

• 29 June 2007, the Times of Zambia

Zambia: American First Lady Donates to Oafla

Visiting American First Lady, Laura Bush, yesterday donated US\$300,000 to Organisation of African First Ladies in Africa (OAFLA) headed by her Zambian counterpart Lady Maureen Mwanawasa.

• 29 June 2007, Inquirer.net

Philippines: Palawan winning war on malaria with use of simple method

It didn't take sophisticated equipment or complex chemical processes to wage a successful war against malaria in Palawan. All it took were mosquito nets and a type of insecticide that kills mosquitoes on contact.

K&S Consulting, an independent consultancy firm concerned with medical information provision and training activities, provides this free service.

Drs. Ingeborg (Inga) MCJ van Schayk & Dr. Bart GJ Knols
K&S Consulting
Englaan 23, 6703 EV Wageningen, the Netherlands
Tel: +31-(0)6 13191007