

RITAM Newsletter No 43 – May 2006

Dear Colleagues,

1. Africa Herbal Antimalaria Meeting, 20-22 March 2006, Nairobi

This very successful meeting was organised and hosted by the World Agroforestry Centre (ICRAF) in collaboration with the EU's Centre for the Development of Enterprise (CDE). The principal organisers were Dr Tony Simons of ICRAF and Denzil Phillips of CDE. The meeting brought together stakeholders from every sphere of activity on antimalarial plants, ranging from traditional healers to modern clinicians, agronomists to chemists, NGOs to commercial companies and investors to regulators. The focus was on how to accelerate the development of herbal antimalarials, and how to involve investors and commercial companies in their production and marketing.

The background documents can be viewed in full at:

<http://www.worldagroforestry.org/treesandmarkets/antimalariameeting/index.html>

The proceedings and powerpoint presentations can be viewed in full at:

<http://www.worldagroforestry.org/treesandmarkets/antimalariameeting/proceedings/>

The press release and conference declaration are attached to this newsletter.

2. In memoriam of Dan Winn

The Nairobi meeting was sadly overshadowed by the tragic death of one of its participants, Dan Winn, who accidentally tripped on the hotel steps and suffered a fatal head injury on the first day. Dan was a passionate supporter of herbal antimalarials, and was working with his wife Diane on the development of *Cryptolepis sanguinolenta* as a herbal antimalarial in Ghana.

Diane is continuing this vital work, and has set up a Foundation in memory of her husband to support it. Diane has asked for donations in lieu of flowers to be made to: PlantSearch International Foundation—the Dan Winn Memorial Foundation for Herbal Antimalarial Research in Africa (please make out check to “PSIF” with “Dan Winn Memorial Fund” in the memo field), care of Irvin Coker, 9501 Brunett Avenue, Silver Spring, Maryland 20901.

3. RITAM meeting

A side meeting of RITAM was held during this conference on 22nd March 2006. The minutes of this are attached to this newsletter. The main issues discussed were funding, the organisation and running of RITAM, the role of private companies, and intellectual property rights.

4. *Artemisia annua* controversy

A discussion on the use of herbal preparations of *Artemisia annua* had already started in the RITAM *Artemisia annua* Group, following a controversial letter by Dr Jansen to the Transactions of the Royal Society of Tropical Medicine and Hygiene. Our response to this will be posted on the RITAM website.

The Nairobi meeting provided a welcome forum for this discussion to continue and broaden. The organisers stressed the importance of including everyone in the debate. There were presentations from commercial growers and extractors who produce purified artemisinin from the plants, and also from NGOs such as Anamed, Doctors for Life and ICIPE who have been promoting and trialling the use of the whole plant (as a decoction or as tablets) for the treatment of malaria. In the concluding discussion widely differing opinions were expressed, with one side saying that it was criminal to promote the use of herbal *Artemisia annua* without knowing whether it will promote the spread of resistance to artemisinin; and the other side responding that it was criminal to prevent access to an effective herbal medicine for people who have no other treatment for malaria.

RITAM members proposed to organise an experiment to determine whether or not the use of herbal *Artemisia annua* will promote the development of resistance to artemisinin. The *Artemisia annua* group is currently working on this, but it is a considerable scientific challenge. There is no agreement yet as to how an experiment can be designed to provide a conclusive answer to this question. Suggestions range from in vitro experiments comparing the use of subtherapeutic artemisinin concentrations with equivalent concentrations of the plant extract; to epidemiological studies looking at artemisinin sensitivity in areas (such as China) where the herbal remedy has been in long-term use. Each has potential drawbacks and fallacies. If anyone has any bright ideas or suggestions, please contact merlinwillcox@doctors.org.uk !

To add to this debate, a recent publication from one of our members suggests that the plant used traditionally by the Chinese was not *Artemisia annua* at all, but its relative *Artemisia apiacea*. For further details, see:

Hsu E (2006). The history of qing hao in the Chinese materia medica. *Trans Roy Soc Trop Med Hyg* 100: 505-8.

5. Sources of Funding

The new granting session is now open at the International Foundation for Science (IFS). They are inviting young scientists in developing countries to apply for IFS research grants. Scientific topics acceptable must fall under the broad concept of sustainable management of biological or water resources.

French: <http://www.ifs.se/French/index.asp>

English: <http://www.ifs.se/index.asp>

6. Websites of interest

The Traditional Chinese Medicine Information Database:

<http://tcm.cz3.nus.edu.sg/group/tcm-id/tcmid.asp>

This has been introduced as a web-resource to provide, free-of-charge for academic use, information about all aspects of herbs used in traditional Chinese medicine including prescriptions, constituent herbs, herbal ingredients, and their respective therapeutic effects and clinical indications and applications. The molecular structure and functional properties of active ingredients are also provided. TCM-ID currently contains 1197 TCM prescriptions covering 4111 disease conditions, 1104 herbs, and 9862 ingredients (4500 of these with molecular 3D structure provided).

Electronic Gateway To Global Journal Literature: <http://www.openj-gate.com/>

Open J-Gate is an electronic gateway to global journal literature in the open access domain. It is also a database of journal literature, indexed from over 3,000 open access journals, with links to full text at publisher sites.

Portal features include:

- links to over one million open access articles;
- all journals are classified in a three-level hierarchical system for better relevancy in search results;
- users can browse the table of contents of latest issue and the back issues; and
- a database that allows various search options for the users.

7. Recent Publications of Interest

The following are recent publications by RITAM members:

S. Bisser, O.N. Ouwe-Missi-Oukem-Boyer, F.S. Toure, Z. Taoufiq, B. Bouteille, A. Buguet and D. Mazier (2006). Harboring in the brain: A focus on immune evasion mechanisms and their deleterious effects in malaria and human African trypanosomiasis. *International Journal for Parasitology* Volume 36, Issue 5 , Pages 529-540

Diallo D, Graz B, Falquet J, Traore AK, Giani S, Mounkoro PP, Berthe A, Sacko M, Diakite C (2006). Malaria treatment in remote areas of Mali: use of modern and traditional medicines, patient outcome. *Trans Roy Soc Trop Med Hyg* 100: 515-520.

Dung T.N., Bodeker G. 2001. Tue Tinh: Founder of Vietnamese Traditional Medicine. *J. Altern. & Complement. Med.* 7,5, 401-404.

G. Garavito, J. Rincón, L. Arteaga, Y. Hata, G. Bourdy, A. Gimenez, R. Pinzón, and E. Deharo(2006). Antimalarial activity of some Colombian medicinal plants. *Journal of Ethnopharmacology* (published online).

Hsu E (2006). The history of qing hao in the Chinese materia medica. *Trans Roy Soc Trop Med Hyg* 100: 505-8.

Hsu E (2006). Reflections on the 'discovery' of the antimalarial qinghao. *British Journal of Clinical Pharmacology*. Volume 61 (6): 666.

Kobbe R, Neuhoff R, Marks F, Adjei S, Langefeld I, von Reden C, Adjei O, Meyer CG, May J (2006). Seasonal variation and high multiplicity of first *Plasmodium falciparum* infections in children from a holoendemic area in Ghana, West Africa. *Tropical Medicine and International Health* 11 (5): 613-619

G.K. Mesia, G.L. Tona, O. Penge, M. Lusakibanza, T.M. Nanga, R. K. Cimanga, S. Apers, S. Van Miert, J. Totte, L. Pieters, and A.J. Vlietinck (2005). Antimalarial activities and toxicities of three plants used as traditional remedies for malaria in Democratic Republic of Congo: *Croton mubango*, *Nauclea pobeguinii* and *Pyrenacantha staudtii*. *Annals of Tropical medicine and Parasitology*, Vol. 99, No. 4, 345-357.

S.F. Mbatchi, B. Mbatchi, J.T. Banzouzi, T. Bansimba, G.F. Nsonde Ntandou, J.-M. Ouambae, A. Berry, F. Benoit-Vical (2006). In vitro antiplasmodial activity of 18 plants used in Congo Brazzaville traditional medicine. *Journal of Ethnopharmacology* 104:168–174

Tinto H et al (2006). In vitro susceptibility of *Plasmodium falciparum* to monodesethylamodiaquine, dihydroartemisinin and quinine in an area of high chloroquine resistance in Rwanda. *Trans Roy Soc Trop Med Hyg* 100: 509-514

These are other publications of interest:

A. Hilou, O.G. Nacoulma, T.R. Guiguemde (2006). In vivo antimalarial activities of extracts from *Amaranthus spinosus* L. and *Boerhaavia erecta* L. in mice. *Journal of Ethnopharmacology* 103: 236–240.

Obomanu, F. G., Ogbalu, O. K., Gabriel, U. U., Fekarurhobo, G. K., Adediran, B. I. (2006). Larvicidal properties of *Lepidagathis alopecuroides* and *Azadirachta indica* on *Anopheles gambiae* and *Culex quinquefasciatus*. *African Journal of Biotechnology* Vol. 5 (9), pp. 761-765.

Available online at <http://www.academicjournals.org/AJB>

Olakunle O. Kassim, Mark Loyevsky, Biaffra Elliott, Andrew Geall, Henrietta Amonoo, and Victor R. Gordeuk (2005). Effects of Root Extracts of *Fagara zanthoxyloides* on the In Vitro Growth and Stage Distribution of *Plasmodium falciparum*. *ANTIMICROBIAL AGENTS AND CHEMOTHERAPY*, 49(1): 264–268

TDR (2005). Operational guidance: information needed to support clinical trials of herbal products. Geneva: WHO. Available from:

http://www.who.int/tdr/publications/publications/pdf/herbal_products.pdf

Report on *Artemisia annua*:

http://www.kit.nl/development/html/publications_db.asp?ItemID=1948

8. New Members:

We welcome the following new members who have joined since the last newsletter:

Dr Dorothy Balaba-Byansi, Executive Director, THETA, Kamapala, Uganda. Has conducted observational clinical studies on *Vernonia amygdalina* and *Aspilia africana*.

Dr William R Burns PhD, Science Communication Group, Imperial College London

Dr Chiaka Diakité, Head of clinical service, Department for Traditional Medicine, Bamako, Mali.

Professor Maria José Umbelino Ferreira, Faculty of Pharmacy, University of Lisbon, Portugal.

Dr Ben Knighton, Ph.D Programme Leader, Oxford Centre for Mission Studies

Dr Rajendra Maharaj, Deputy Director, Malaria Research Programme, Medical Research Council, South Africa. Has screened over 370 indigenous southern African plant species for mosquitocidal properties.

Dr Kahunu Gauthier Mesia, Chef de Travaux, Laboratoire de Pharmacologie Cellulaire et Parasitaire, Faculté des Sciences Pharmaceutiques, Université de Kinshasa, DRC

Mr Zachary Ochieng, Associate Editor, NewsfromAfrica, Nairobi, Kenya

Denzil Phillips, Director of company sourcing specialist natural products from round the world, and advisor to various international organisations on herbals and natural products, London, UK

Assoc. Prof. Dr. Hasidah Mohd. Sidek, Head / Lecturer, Biochemistry Program, School of Biosciences & Biotechnology, Faculty of Science & Technology, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia

Prof Wan Yaode, Sichuang Institute of Chinese Materia Medica, Chengdu, China.

With best wishes,

Yours sincerely,

Merlin Willcox (Secretary, RITAM)