

RITAM Newsletter No 40 – October 2005

Dear Colleagues,

1. RITAM Workshop at the MIM Conference, Cameroon, 16th Nov 2005

Plans for our workshop at the conference are proceeding apace. If you are attending the MIM symposium, please be sure to attend our workshop! Here is a draft programme.

Workshop Title: "Traditional Medicine and Malaria Control"

Chairs: Prof Essame Oyono and Dr Merlin Willcox

0900 Ministry of Health, Cameroon

0915 Prof Essame Oyono

Director of the Institute for Medicinal Plants and Medical Research, Cameroon

0930 NAPRECA and the Search for Anti-malarials in East and Central Africa

Prof. Jacob O. Midiwo, Department of Chemistry, University of Nairobi, and Executive Secretary of NAPRECA (Natural Products Research Network for East and Central Africa.)

0945 Traditional Medicine: opportunities for malaria control in the Amazon

Prof Antoniana Krettli, Head, Malaria Laboratory, Centro de Pesquisas René Rachou, FIOCRUZ, Belo Horizonte, Minas Gerais, Brazil

1000 RITAM: achievements and challenges for malaria control with traditional medicines

Dr Merlin Willcox, Secretary, RITAM

1015 Potential for plants in vector control programmes

Dr Aklilu Seyoum, ICIPE, Nairobi.

For further information on the conference see www.mim.su.se/conference2005

2. Report from IVth International Conference on Tropical Medicine at Le Pharo, Marseille, 12-15th September 2005

A very successful symposium on traditional medicine was held in the course of this conference, chaired by Dr Milijaona Randrianarivelosia from the Institut Pasteur of Madagascar and Dr Merlin Willcox. The keynote presentation was eloquently given by Dr Ben Gilbert from Fioacruz, Ministry of Health, Brazil. He presented the current state of research on medicinal antimalarial plants in Brazil, and highlighted some of the most promising plants so far discovered in the Amazon, as well as the absolute necessity for medicinal plants in remote areas as the only accessible antimalarials. One of these plants is a very promising prophylactic, and has been found to work by killing sporozoites,

rather than blood stage parasites. This was only discovered after initial laboratory tests found no activity, and because of strong ethnomedical evidence. Further research is being planned.

A very important presentation was made by Dr Kone, working with the team of Prof Ogobara Doumbo in Mali. They have shown that the case fatality of severe malaria can be significantly decreased (from 40% to less than 10%) by a collaboration between the hospital and traditional healers. Dr Merlin Willcox presented the latest results from the Antenna project in Mali, researching the clinical efficacy of *Argemone mexicana*.

Dr Luisella Verotta made a beautiful presentation on the antimalarial compounds found in *Myrtus communis* (myrtle), a traditional antimalarial from Sardinia. There were also two interesting presentations from South Africa on collaboration with traditional birth attendants in order to prevent the transmission of HIV. The question of traditional medicine was raised in several debates and plenary sessions during the conference. The ethics of clinical trials was discussed.

There were several poster presentations on herbal antimalarials. These included:
Jullian V et al. Antiplasmodial alkaloids from the bark of *Zanthoxylum rhoifolium* Lam (Rutaceae), a traditional remedy used against malaria.
Ghosh SK et al. Larvivorous fish in Malaria control in India.
Benoit-Vical F et al. *In vitro* and *in vivo* antiplasmodial activity of *Momordica balsamina*, a plant traditionally used in Niger.
Hanafi-Bojd AA & Vatandoost H. Repellency effect of permethrin, deet and neem against main malaria vector, *Anopheles stephensi*, in Iran.

3. Medicinal Plant Meeting, Manaus, Brazil

A meeting on Amazonian medicinal plants is to be held at the Federal University of Manaus, Brazil, on 16-19th November. More information can be downloaded from the website: www.cesf.br

Contact: Dr Adrian Pohlit (ampohlit@inpa.gov.br)

4. Funding opportunities

a) Call For Applications For 2006 Research Training Grants From TDR

Closing Date: 15 November 2005

Description

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 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. These grants are awarded on a competitive basis for studies leading to a postgraduate degree, or for acquiring specialized skills.

Eligibility

Studies must be on one or more of the TDR target diseases - malaria, leishmaniasis, schistosomiasis, lymphatic filariasis and onchocerciasis, African trypanosomiasis and Chagas disease, leprosy, dengue and tuberculosis, in laboratory, clinical, applied field research and social sciences disciplines, relevant to TDR

and/or national priorities. See the TDR website at www.who.int/tdr/grants/workplans for TDR's priority research areas. The training may take place in the home country, in another developing country, or in a developed country. TDR reserves the right to select the academic institution, research programme or TDR-funded Research & Development (R&D) project where it is felt the most suitable training can be obtained.

Contact details: Steven Wayling: waylings@who.int

b) Call For Proposals: Research And Development To Fight HIV/AIDS, Malaria And TB (European Commission)

Closing Date: 9 November 2005

The European Commission is now calling for proposals for clinical research projects to address the three diseases — HIV/AIDS, Malaria and TB. Their focus is on developing new effective interventions against the three diseases from early discovery through pre-clinical testing and up to early human trials. The total budget for this call is approximately €67 million.

Contact details:

Hannu Lang (hannu.laang@cec.eu.int) for TB

Manuel Romaris (manuel.romaris@cec.eu.int) & Simonetta di Fabio (simonetta.di-fabio@cec.eu.int) for HIV/AIDS and

Andreas Holtel (andreas.holtel@cec.eu.int) for malaria

For more information, see:

http://europa.eu.int/comm/research/health/poverty-diseases/call-for-proposals_en.html

5. Book Review: Mueller MS, Mechler E (2005). Medicinal Plants in Tropical Countries. Thieme: Stuttgart.

[Review by Dr Merlin Willcox, submitted for publication to the Journal of Tropical Medicinal Plants]

This book is intended as a summary of current evidence on the use of medicinal plants for health practitioners in developing countries. As such, the main body of the book consists of a series of monographs on 25 medicinal plants. These were selected from a list of 54 medicinal plants which are described in ethnobotanical studies from five or more African countries (out of a total of 4776 medicinal plants).

Before launching into the monographs, however, there is a useful opening chapter on the need for collaboration between traditional and modern medicine, and a second chapter focussing on the use of medicinal plants for malaria. The first author is well placed to discuss this, having himself conducted the two largest clinical trials of *Artemisia annua* tea for malaria. Unfortunately the book does not quote the results of his latest research or other recent publications. Nevertheless the chapter provides a good overview of the subject.

Each monograph starts with an illustration of the plant in question. These are of variable quality, with some photographs, some botanical illustrations, and some sketches. It would not always be possible to identify the plants on the basis of the illustrations given. Then the plant parts and constituents are given, followed by information on traditional uses, experimental studies, clinical studies, cautions and undesired effects, dosages, and an overall evaluation. The plant is then given a star rating (1-4) for the evidence supporting each indication. This provides a practical way of quickly looking up the

evidence in support of a particular indication for a particular plant. The monographs are well referenced, enabling the reader to look up the literature in more detail if necessary.

On the whole the chosen plants are common, pantropical, and relevant to primary health care in developing countries. As would be expected from the selection procedure, there is a bias towards African plants. The information given is practical for clinicians, but assumes that the plant material will be already identified and harvested, as there are no botanical details on the correct identification of the relevant plants, their cultivation or harvest. A few obscure herbs are included (such as *Indigofera arrecta*, *Cajanus cajan*), and some important herbs are omitted (such as *Azadirachta indica* and *Cinchona* sp). This is probably inevitable when aiming to produce a concise, portable handbook, but the book is priced as a reference academic book, and will be unaffordable to the majority of its intended audience.

The concept of evidence-based medicine is finally filtering through even to traditional medicine. This book provides a very useful summary of the current evidence on some key herbs. In the process, it highlights how little we currently know about the clinical safety and efficacy of many traditional herbal medicines. Hopefully this will encourage further research, so that future editions of this and other similar books can provide more complete information to frontline clinicians in developing countries.

6. Recent Publications of Interest

The following are recent publications by RITAM members:

Ajaiyeoba, E. Falade, M., Ogbale, O., Okpako, L. and Akinboye, D. (2006). *In vivo* antimalarial and cytotoxic properties of *Annona senegalensis* extract. Afr. J. Trad. Comp. Alt. Med., 2006, **3 (1)**: 137– 141. Available online at: <http://www.africanethnomedicines.net/journal.php>

Benoit-Vical F (2005). Ethnomedicine in malaria treatment. IDrugs. 8(1): 45-52.

B. Graz, D. Diallo, J. Falquet, M. Willcox, S. Giani (2005). Screening of traditional herbal medicine: First, do a retrospective study, with correlation between diverse treatments used and reported patient outcome. J Ethnopharm 101 (1-3): 338-339

Ouattara, Y., Sanon, S., Traoré, Y., Mahiou, V., Azas, N. and Sawadogo, L. (2006). Antimalarial activity of *Swartzia madagascariensis* desv. (Leguminosae), *Combretum glutinosum* Guill. & Perr. (Combretaceae) and *Tinospora bakis* Miers. (Menispermaceae), Burkina faso medicinal plants. Afr. J. Trad. Comp. Alt. Med., 2006, **3 (1)**: 75 – 81. Available online at: <http://www.africanethnomedicines.net/journal.php>

Willcox ML, Gilbert B (2005). “Traditional Medicinal Plants For The Treatment And Prevention Of Human Parasitic Diseases”. UNESCO Encyclopaedia Of Life Support Systems. Available online at www.eolss.net

Wright CW (2005). Traditional Antimalarials and the development of novel antimalarial drugs. J Ethnopharmacol 100:67-71.

The following are other recent publications of interest:

J.C. Chukwujekwu, P. Smith, P.H. Coombes, D.A. Mulholland, J. van Staden (2005). Antiplasmodial diterpenoid from the leaves of *Hyptis suaveolens*. Journal of Ethnopharmacology 102(2): 295-297.

A. Koch, P. Tamez, J. Pezzuto, D. Soejarto (2005). Evaluation of plants used for antimalarial treatment by the Maasai of Kenya. J Ethnopharm 101 (1-3): 95-99

SEAQUAMAT group (2005). Artesunate versus quinine for treatment of severe falciparum malaria: a randomised trial. Lancet 366: 717-25.

P.J. Waako, P. Smith, P.I. Folb (2005). In vitro interactions of *Aspilia africana* (Pers.) C.D. Adams, a traditional antimalarial medicinal plant, with artemisinin against *Plasmodium falciparum*. Journal of Ethnopharmacology 102(2): 262-268

7. Websites and Internet Resources of Interest

GIFTS of Health:

The Global Initiative for Traditional Systems of Health has a new website at: www.giftsofhealth.org

It is hoped to link the RITAM website to this.

Encyclopedia of Life Support Systems (EOLSS): www.eolss.net

This UNESCO project aims to provide a comprehensive reference on “Life Support Systems”. There is a large and useful selection of chapters on Ethnopharmacology, covering most major groups of diseases. These were edited by Prof Nina Etkin and Prof Elaine Elizabetsky. The chapter on parasitic diseases was written by RITAM members Dr Merlin Willcox and Dr Ben Gilbert. EOLSS is on the way to becoming the most sought after reference site in the world. According to a recent count, the average number of daily visitors to the website, over a week, was about 78,000. On one day recently, there were well over 100,000 visitors. These figures are steadily increasing.

Please advise your Library Administrators to register with the preferential code ‘PA17452’ to have free trial access for 5 months.

8. New Member:

We welcome the following new member who has joined since the last newsletter:

Prof Hassan Vatandoost, Associate Professor Medical Entomology and Vector Control, School of Public Health & Institute of Health Research, Tehran University of Medical Sciences, Tehran, Iran. Working on insecticidal and repellent plants.

Yours sincerely,

Merlin Willcox (Secretary, RITAM)