



14 November 2005

Dear Network participant,

This issue of the ARC/NHMRC Research Network for Parasitology holds the following news items for you:

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- [2] **2006 ASP & ARC/NHMRC Research Network for Parasitology annual conference**

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Grants, awards and prizes

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- [6] **Professor RC Andrew Thompson receives the 2005 WAAVP – Bayer HealthCare Award for Excellence in Research.**
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PhD scholarship and other funding opportunities

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[1] Introduction and update to Network website

I'd like to take this opportunity to introduce myself, Lisa Jones, as the Communications Coordinator for the Network. I have a science background, with post graduate qualifications in Scientific Communication and Public Health. Most recently I've been living and working in the UK in science communication roles, in community development, and as a researcher in health and social care. I was very pleased to be offered this position and to join the ARC/NHMRC Research Network for Parasitology at such an exciting stage of its development (and I admit it was a bonus to leave London just as winter was settling in....) I look forward to meeting you at future Network events and working with you on our communication projects.

Initially I'd like your feedback to help develop the Network's website <http://www.parasite.org.au/arcnet> and also the Network's newsletter so please send an email to Lisa.Jones@uts.edu.au or contact me by telephone 02 9514 4006 with your ideas. I have plans to update the website's content, in particular the news section; add the Network's logo and those of our sponsors; and replace some of the images as the photos are a little out of date. If you have any good images of parasites or of life in the lab that you would like to see on the website please send them to me. I am also contemplating updating the Network's email group to a list where participants can subscribe and unsubscribe. Initially I will subscribe to the list on your behalf, please send your lab group's signed and updated email list to either Nick or me if you have not already done so. (Please contact either Nick or me if you need another copy of this list sent to you.)

[2] 2006 ASP & ARC/NHMRC Research Network for Parasitology annual conference

The 2006 ASP & ARC/NHMRC Research Network for Parasitology annual conference will be held 2 – 5 July, 2006, at the Legends Hotel, Surfers Paradise, Gold Coast, Queensland, Australia.

This conference will be an opportunity for parasitologists from Australia, the European Union, North America and Asia to discuss the latest research and state-of-the-art technologies in parasitology. The meeting will follow two major themes: therapies for parasitic diseases; and biodiversity, ecology and evolution, with emphasis on marine parasitology. Other symposia will include: *New Technologies for Parasitology*; *Vector Biology*, and the meeting will open with the session *10 things you didn't know about parasites*. There will be plenty of opportunities for contributed talks and posters. The conference will run over four days, starting with a reception on the evening of Sunday 2nd and the scientific programme beginning Monday (3rd) morning. More details will be available in December through the ASP Newsletter, and the ASP and Network websites.

People

[3] Appointment of Professor Alan Johnson as Deputy Vice-Chancellor (Research) at The University of Adelaide

The University of Adelaide has appointed Professor Alan Johnson as Deputy Vice-Chancellor (Research). Professor Johnson (who is well-known to many ASP and Network members) is currently Executive Director, Biological Sciences and Biotechnology, Australian Research Council (ARC) and will take up this new position in February 2006. He has played a significant role in strategic planning for national scientific research, particularly in Biological Sciences and Biotechnology.

Newsletter for the ARC/NHMRC Research Network for Parasitology

<http://www.parasite.org.au/arcnet>

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Professor Johnson is a recipient of the Bancroft-Mackerras Medal for Excellence. Through this award the Australian Society for Parasitology (ASP) recognises outstanding contributions of its members to the Science of Parasitology; it is the ASP's highest award for research excellence. Professor Johnson also earned the status "Fellow of the Australian Society for Parasitology" for his contributions to the ASP and to parasitology generally. He is also well-known for his tenure as Editor-in-chief of the International Journal for Parasitology, the highest ranked journal in its discipline for the publication of primary research.

Professor Johnson also has the rare distinction of being elected "Ehrenmitglied" by the board of the German Society for Parasitology. The first non-German to win this honour, Professor Johnson received this award for being a leading scientist in the field of phylogeny and immunology of apicomplexan parasites; maintaining collaborative contacts with German parasitology groups; and training several German postdoctoral researchers in his laboratory.

We wish Professor Johnson all the best in his new role.

Grants, awards and prizes

[4] Professor John Barta receives an Endeavour Australian Research Fellowship from DEST

Congratulations to Professor John Barta who has been awarded an Endeavour Australian Research Fellowship from DEST. Professor Barta will be a visiting scientist at Murdoch University, Western Australia. Professor Barta's lab in Guelph was the first to demonstrate a close link phylogenetically between *Cryptosporidium* and the *Gregarines*. During his four months at Murdoch University, Professor Barta plans to isolate relevant gregarines from polychaetes and lower chordates and subject these to comparative molecular and ultrastructural studies with *Cryptosporidium*.

[5] 2005 ARC Research Grants have been announced

Congratulations to the following Network Participants who have been awarded ARC Discovery Grants for 2006 - 2008:

- **Professor Mike Bull from Flinders University** and colleagues for their project "Ecological dynamics of parasite infections in reptiles."
- **Associate Professor Robin Gasser and Dr Alex Loukas from The University of Melbourne** for their project "Discovery of early developmental events in the transition to parasitism in the hookworm *Ancylostoma caninum* using genomic technologies".
- **Professor Geoff McFadden from The University of Melbourne** (and Dr RF Waller) for their project "Infrakingdom Alveolata: searching for a defining structural feature".
- **Professor Ray Norton from The University of Melbourne** for his project "Malarial parasite surface proteins: structure and interactions of key merozoite antigens"

- **Dr Sabina Belli and Associate Professor Nick Smith from the University of Technology, Sydney** for their project "The biosynthesis of structural proteins in parasites".
- **Professor John Dalton, Dr Don Gardiner, and Dr Katherine Trenholme from the University of Technology, Sydney** (and Dr J Grembecka) for their project "Aminopeptidases involved in regulating the amino acid pool in malaria parasites".
- **Associate Professor Nick Smith and Professor Jim Wiley from the University of Technology, Sydney** for their project "Parasite virulence: the role of activation and suppression of P2X7 receptors".

Congratulations to the following Network Participants who have been awarded ARC Linkage Grants for 2006 - 2008:

- **Associate Professor Robin Gasser, Dr Ian Beveridge, and Dr Alex Loukas from The University of Melbourne** (and Professor S Ranganathan) for their project "Targeted mining for new drugs against parasitic nematodes of animals a synergy of integrated, frontier technologies and a committed partnership with industry".
- **Associate Professor Marshall Lightowers, and Dr Dave Jenkins from The University of Melbourne** (and Dr LA Hinds) for their project "Evaluation of the EG95 vaccine against hydatid infection in macropodid marsupials". (This grant covers the period 2006 – 2009.)
- **Professor Ian Clark from The University of New South Wales** (and Professor CL Geczy) for their project "Identification of novel markers of inflammation".

Congratulations to Dr Renfu Shao who has been awarded an ARC Australian Postdoctoral Fellowship to work on "Recombination of mitochondrial genomes: what can we learn from chigger mites?" in Steve Barker's lab at The University of Queensland.

[6] Professor RC Andrew Thompson receives the 2005 WAAVP – Bayer HealthCare Award for Excellence in Research.

Congratulations to Professor RC Andrew Thompson who was selected to receive the *2005 WAAVP - Bayer Health Care Award for Excellence in Research* by the Awards Committee for the World Association for the Advancement of Veterinary Parasitology for his distinguished record of achievements. The Award honors contributions to research that are recognised as outstanding and significant to the advancement of knowledge in veterinary parasitology and/or the control of parasitic diseases. Professor Thompson is an internationally renowned scientist with three decades of dedicated research in veterinary parasitology with an emphasis on parasite zoonoses. He has made major contributions to the understanding of the biology, lifecycles and epidemiology of parasite zoonoses like echinococcosis, giardiasis and cryptosporidiosis. His research has focused on identification of problems and providing new avenues for solving them, as a consequence his current activities are concerned with anti-parasite drug discovery.

[7] Dr Min Hu receives the WAAVP Peter Nansen Young Scientist Award at the WAAVP05 Conference in Christchurch, New Zealand.

Congratulations to Dr Min Hu who received the WAAVP Peter Nansen Young Scientist Award at the WAAVP05 Conference in Christchurch, New Zealand for her outstanding accomplishments in mitochondrial genomics of nematodes, molecular systematics and population genetics investigations. The Award was established to honour the memory of the late Professor Peter Nansen for his contributions to veterinary parasitology and his great concern for, and encouragement of, young scientists in this field and is given to reward promising young professionals in the field of veterinary parasitology. Dr Hu was head of the Schistosomiasis Diagnostic Laboratory at Hubei Institute of Schistosomiasis Control until she left for Australia and received her PhD from The University of Melbourne in 2003. Today Dr Hu is a postdoctoral research scientist in the Parasitology Unit in the Department of Veterinary Science at The University of Melbourne.

[8] Rebecca Traub receives the John Frederick Adrian Sprent Prize at the ASP 2005 AGM.

Congratulations also to Rebecca Traub who was awarded the John Frederick Adrian Sprent Prize for her PhD thesis "Dogs, humans and gastrointestinal Parasites: Unravelling epidemiological relationships in an endemic tea-growing community in Northeast India" at the ASP 2005 AGM. The Sprent Prize is presented to a member of the Society who has written an outstanding thesis in parasitology for which the PhD degree was awarded during the previous three years. Rebecca's research comprised a parasitological survey of canine and human GI parasites in Assam using a combination of molecular, classical parasitological and epidemiological tools. As a result of her research, she provided the first convincing data on the zoonotic transmission of *Giardia* in an endemic focus, the role of dogs as mechanical disseminator of *Ascaris lumbricoides*, and she developed molecular tools to discriminate species of hookworm directly from eggs in the faeces. Rebecca also carried out detailed risk factor analysis for a variety of parasites of public health significance.

[9] ARC/NHMRC Research Network for Parasitology Travel Award

Congratulations to Robert Walker (IBID, UTS) who has successfully applied to the Network for support to visit Mal Jones' lab at QIMR to collaborate on a project that aims to isolate the sexual stages of the apicomplexan parasite, *Eimeria maxima*, using laser capture catapulting technology and, ultimately, produce macrogamete and microgamete EST libraries.

PhD scholarship and other funding opportunities

[9] PhD scholarships as part of the CRC for Beef Genetic Technologies

Applications are invited for PhD scholarships funded by the Cooperative Research Centre for Beef Genetic Technologies. The scholarships are available for work on molecular and biochemical basis of insecticide resistance in cattle ectoparasites and gene expression and immunology of host resistance of cattle to ectoparasites in the following projects:

- **Gene expression of QTL controlling tick resistance**
- **Novel therapeutic targets for tick control**
- **Immune responses to ticks**
- **Gene pathways and tick resistance**

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Cattle ticks (*Boophilus microplus*) are a very important cause of economic loss and adverse animal welfare to the cattle industries in Australia. The CRC is committed to innovative approaches to the sustainable management of these pests.

The first of these projects is concerned with the investigation of the mechanisms underlying the resistance of cattle ticks to currently used acaricides and the development of a rapid, molecular diagnostic test. This project will make use of a bioinformatics and most likely target site approach, supported by confirmatory gene sequencing.

The second project will undertake isolation and analysis of genes involved in tick attachment and/or tick feeding using subtractive hybridisation methods. This is a potential Honours research program that will involve the analysis of novel ESTs which will be further studied in related CRC research.

The third project is intended to identify the immunological basis of resistance of cattle to the cattle tick. There is substantial breed and individual variation in the resistance of cattle to ticks that has not been explained and that could be used for the development of genetic tests for resistant animals and the identification of novel therapeutics or vaccines. The project will use a variety of immunological and molecular techniques including microarray analysis of gene expression and proteomics. The aim of this strategy is to identify biomarkers of immunity. The project is mostly laboratory-based but may include animal work if candidate is interested.

The fourth project will study candidate genes for host tick resistance. Those genes, which were determined in related research programs (i.e project 1), will be further studied using RNAi knockdown in bovine cell culture models. Subsequent effects on gene expression and gene pathways will be analysed using microarrays to determine what mechanisms are involved in bovine tick resistance phenotype. These studies will also include the study of *in vitro* gene expression in response to tick extracts by comparing different bovine genetic breeds (tick resistant vs. tick susceptible).

The successful applicants will be part of a team working alongside experienced researchers in the University of Queensland, Queensland Department of Primary Industries and Fisheries, CSIRO and Murdoch University. You should have a background in biological science, veterinary science or a related field and hold a bachelor's degree with honours in biological or veterinary science. These are full-time scholarships with a maximum of 3 years funding available, contingent on satisfactory progress. Each tax-free stipend is valued at \$ 28,000 per annum.

To obtain further information contact Dr Nick Jonsson on 07 3365 1279 or email n.jonsson@uq.edu.au Applications including a curriculum vitae citing relevant studies and/or experience, the names and addresses of three professional referees, and including a copy of an official academic record/transcript should be forwarded as soon as possible to Dr Nick Jonsson, School of Veterinary Science, The University of Queensland, St.Lucia, Qld, 4072, or via email n.jonsson@uq.edu.au A scholarship application form and conditions are attached to this email. **Closing date for applications: Friday 2 December 2005.**

[10] Funding opportunities in Malaria drug research

5th CALL FOR LETTERS OF INTEREST

1. **Malaria Drug Discovery Research Proposals**
2. **Malaria Drug Natural Products Proposals**

Medicines for Malaria Venture (MMV) is a not-for-profit Organisation committed to the discovery, development and delivery of affordable antimalarial drugs through public-private partnership. Two project categories are defined for this year's proposals:

1. Malaria drug discovery projects that are directed toward the identification of a candidate compound(s) for entry into preclinical development.
 - Projects may be at an exploratory stage but must have an identified target.
 - Projects at an early or late stage of the discovery process are also encouraged to apply.
 - Applications from single institutions (academic or biotech or pharma) or a partnership between an academic centre and a pharmaceutical company are welcome. The key determinant for funding will be the perceived chance of project success.
2. Malaria Natural Product projects are also solicited. They are more likely to succeed if applicants have a well-established infrastructure for a natural product programme, and can demonstrate one or more of the following characteristics:
 - Activity of the extracts together with identified compounds, against *P. falciparum* *in vitro* and in animal models;
 - Demonstrated clinical efficacy of originating extract or identified compounds against malaria; and
 - Methodology for the identification and optimisation of active agent(s).Projects that have already identified active agent(s) are strongly encouraged to apply.

Application for funding is initially requested through submission of a 3 page letter of interest, to reach MMV (see below) no later than 28 February, 2006.

Electronic submissions are preferred. Further details can be obtained from the MMV web site (www.mmv.org) or by directing inquiries to the MMV offices, to the attention of: **Dr. Ian Bathurst, MMV, Rte de Pré-Bois, 20, P.O.Box 1826, CH-1215 Geneva 15, Switzerland. E-mail: applications@mmv.org**

[11] The Winston Churchill Memorial Trust Travelling Fellowships

Two Travelling Fellowships awarded by The Winston Churchill Memorial Trust have been announced:

1. **The 2006 Dr Dorothea Sandars Churchill Fellowship** "for the study of medical and veterinary parasitology or Parkinson's Disease or to study advances in any medical field".
2. **The 2006 Dr Dorothea Sandars and Irene Lee Churchill Fellowship** "for the enhancement of the delivery of palliative care".

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A Churchill Fellowship helps to enable Australian citizens to travel overseas to undertake an analysis, study or investigation of a project or issue that cannot be readily undertaken in Australia. Each of the 100 Fellowships available has an average value of \$25,000 and includes return airfare and an overseas living allowance. **Applications open Tuesday 1 November 2005 and close Tuesday 28 February 2006, for travel commencing after 1 September 2006.**

For more information visit the Churchill Trust website www.churchilltrust.com.au or contact the National Office by email churchilltrust@bigpond.com or telephone **1800 777 231 or 02 6247 8333.**

Please send me items for the next newsletter by Thursday 8 December 2005.
The Christmas newsletter will have registration details for the 2006 ASP & ARC/NHMRC Research Network for Parasitology annual conference.

Best wishes and look forward to hearing from you,

Lisa Jones
Communications Coordinator, ARC/NHMRC Research Network for Parasitology