



Network Newsletter, Tuesday 31 January 2006

Dear Network Participant,

The first ARC/NHMRC Research Network for Parasitology Newsletter for 2006 holds the following items for you:

- [1] **2006 ASP & ARC/NHMRC Research Network for Parasitology annual conference**
- [2] **Reminder about Network Initiatives and Opportunities for Network Participants**
- [3] **Welcome to new Network staff member**
- [4] **Network IT program update**

***Grants, awards and prizes***

- [5] **DEST Endeavour Scholarship for Eithne Cunningham**

***Conferences***

- [6] **Cell Organelles of Protozoan Parasites: From Basic Science to Drug Targets, from 5 to 7 June, 2006, in Prague, Czech Republic.**
- [7] **Apicomplexan Biology in the Post-Genomic Era: COST Action 857, 3<sup>rd</sup> Annual Workshop in Dresden, Germany from May 17<sup>th</sup>-20<sup>th</sup>**

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*ARC/NHMRC Research Network for Parasitology, Institute for the Biotechnology of Infectious Diseases, University of Technology, Sydney, PO Box 123, Broadway, NSW, 2007, Australia. Telephone: +61-2-9514 4006; FAX: +61-2-9514 4201; E-mail: Lisa.Jones@uts.edu.au Website: <http://www.parasite.org.au/arcnet>*

*Supported by the Australian Research Council, the National Health and Medical Research Council and the Australian Society for Parasitology.*

## **[1] 2006 ASP & ARC/NHMRC Research Network for Parasitology annual conference**

Registration and Abstract Submission for the 2006 ASP & Network annual conference are now open, register for the conference and submit your abstract online [http://www.parasite.org.au/arcnet/conf06/index\\_06.html](http://www.parasite.org.au/arcnet/conf06/index_06.html).

A fantastic program of invited speakers has been arranged and registration fees have been kept very low. Early registration (before 24 March 06) starts from \$100 for students and \$200 for regular delegates and includes lunches, dinners, tea breaks and more – join the ASP now at <http://www.parasite.org.au/member.htm> to be able to take full advantage of these low fees and other benefits of being a member of a great society.

## **[2] Reminder about Network Initiatives and Opportunities for Network Participants**

The start of the year is a good time to remind people about the various initiatives and opportunities your Network has to offer (in addition to an enhanced and cheaper annual conference).

Funding Assistance is available to ARC/NHMRC Research Network for Parasitology Participants for a variety of activities including:

- Researcher Exchanges;
- Training Courses (eg the Woods Hole Biology of Parasitism Course);
- Visiting International Lectureships;
- Workshops; and
- Grant Writing Retreats.

Several Network Participants report that they have benefited enormously through Researcher Exchanges during 2005 and the Network has sponsored the forthcoming Symposium on Malaria Protein Structure and Function (<http://www.wehi.edu.au/news/events/MPSF2006>), which looks like being an outstanding event. We will be featuring some of the exchange researchers in future newsletters.

Download the Funding Assistance Application form and Guidance from the Network website [www.parasite.org.au/arcnet/initiatives.shtml](http://www.parasite.org.au/arcnet/initiatives.shtml).

January is grant writing time for many of us. The ARC/NHMRC Research Network for Parasitology is one of only 24 research Networks in Australia. Thus, Participants can potentially enjoy an advantage (albeit slight) from the increased prominence and publicity that parasitology is gaining through the Network and its activities in formulating their statements of National Benefit in grant applications. A couple of examples that could be adapted to suit individual applications and research priorities are presented below. Following

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*ARC/NHMRC Research Network for Parasitology, Institute for the Biotechnology of Infectious Diseases, University of Technology, Sydney, PO Box 123, Broadway, NSW, 2007, Australia. Telephone: +61-2-9514 4006; FAX: +61-2-9514 4201; E-mail: Lisa.Jones@uts.edu.au Website: <http://www.parasite.org.au/arcnet>*

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the examples is a list of the Network research priorities, formulated during the workshops held in 2003 and 2004 as part of the bid for formation of the Network, and stated on the Network website at

<http://www.parasite.org.au/arcnet/objectives.shtml> These Network research priorities are deliberately designed to target Australia's National Research Priorities, and to recognise and emphasise the diversity of Australia's parasitology research effort and the significant contribution it makes to Australia's research priorities. There is, of course, no obligation to specify these priorities in your grant applications but, if your research does fit into the themes developed by the Network, there may be some profit to be had.....

*Example 1:*

Elucidating the factors involved in parasite virulence will enable us to develop novel drugs or immunotherapies to prevent or combat the diseases they cause, which may lead to the creation of novel biomedical and veterinary export products. This contributes directly to research themes prioritised by the ARC/NHMRC Network for Parasitology, most particularly, "better understanding host-parasite relationships" in order to "discover and develop sustainable parasite control strategies", under the National Research Priority, "Promoting and Maintaining Good Health".

*Example 2:*

There is widespread concern about the use of antibiotics in the animal health industry, and the associated potential repercussions for antibiotic resistance in human health. Thus, the discovery of new, parasite specific targets for therapy or prophylaxis would be a major social benefit, providing substantial peace of mind for producers and consumers. This contributes directly to research themes prioritised by the ARC/NHMRC Network for Parasitology, most particularly, to "discover and develop anti-parasite vaccines and therapies", under the "Frontier Technologies" National Research Priority.

ARC/NHMRC Research Network for Parasitology Research Priorities:

The following is extracted from the application to the ARC/NHMRC for formation of the Network. It is also reproduced on the Network website at <http://www.parasite.org.au/arcnet/objectives.shtml>

The researchers brought together by the ARC/NHMRC Research Network for Parasitology represent a wide spectrum of research interests and expertise, reflecting the multi-disciplinary nature of parasitology. This expertise includes internationally renowned experts in: immunology and vaccine development; cell biology and biochemistry; pathogenesis; genomics, proteomics and functional genomics; molecular modelling and bioinformatics; evolutionary biology; molecular and population genetics; epidemiology; spatial analysis (eg Global Positioning and Geographic Information Systems – GPS and GIS);

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biodiversity and taxonomy; diagnosis and biosurveillance. The Network will build on this strong and diverse framework to further enhance and focus Australia's parasitology research effort to make major contributions to all of Australia's National Research Priorities. At a series of national workshops held on December 17-18, 2003 and February 17, 2004, the following research themes were developed for the ARC/NHMRC Research Network for Parasitology in order to achieve these priorities:

#### *An Environmentally Sustainable Australia*

By assessing the susceptibility to, and monitoring the prevalence of, parasitic disease in wildlife the Network will generate new information that will assist in the management of terrestrial and marine ecosystems. The specific objectives of the Network are to enhance and focus Australia's parasitology research effort in order to:

- assess parasite diversity in Australian fauna; and
- ensure the sustainability of wildlife and ecosystem health.

#### *Promoting and Maintaining Good Health*

The young and the elderly are the most susceptible to parasitic diseases, both in the developed and the developing world. To address this, the Network will focus on the development of new vaccines and treatments for local and global populations and the creation of new technologies to monitor and prevent contamination of waterways with infectious stages of zoonotic parasites (a key source of disease). The specific objectives of the Network are to enhance and focus Australia's parasitology research effort to:

- better understand host-parasite relationships; and
- discover and develop sustainable parasite control strategies.

#### *Frontier Technologies*

A central goal of the Network is the development of new molecular tools and information resources. This includes the development of new databases and data management systems to enable the Network's researchers to harness the vast quantity of information being generated by a growing number of genome sequencing projects. Developing new bioinformatic tools will create unprecedented opportunities to identify new vulnerabilities/targets for control in parasites. The specific objectives of the Network are to enhance and focus Australia's parasitology research effort to:

- discover and develop molecular and bioinformatics tools for studying parasite biology; and
- discover and develop anti-parasite vaccines and therapies.

#### *Safeguarding Australia*

The Network will lead to the development of new technologies (eg sophisticated biosensors) to aid in the surveillance of our border areas and neighbours for exotic, emerging and re-emerging parasitic diseases. Thus, the specific objectives of the Network are to enhance and focus Australia's parasitology research effort to:

- better understand the epidemiology and transmission dynamics of parasites; and
- discover and develop better surveillance systems.”

### **[3] Welcome to new Network staff member**

Welcome to the newest member of the ARC/NHMRC Research Network for Parasitology team, Carly Johnson, who will be working with Lisa on the communication and public relations activities of the Network. Carly is about to complete a Bachelor of Business (Public Relations and Management) from QUT and will be based at QIMR in Brisbane.

### **[4] Network IT program update**

On 19 December 2005 a University of Technology Sydney (UTS) contingent travelled to Monash University, Melbourne, to meet with the Chair of the IT Working Party for the ARC/NHMRC Network for Parasitology, Professor Ross Coppel, to discuss UTS' role in supporting IT for parasitology researchers in Australia. In attendance at the meeting, from UTS, was Dr Tim Langtry, Director of the Computational Support Research Unit (CSRU), Mr Anthony Maher, Data Grid Specialist, Ms Ayesha Fernando, Application Support Specialist in Bioinformatics and Dr Sabina Belli, Senior Research Fellow in Parasitology, Institute for the Biotechnology of Infectious Diseases (IBID). Monash University representatives included Dr Torsten Seemann, Research Fellow in Bioinformatics, and Dr David Powell, Research Scientist in Bioinformatics, who are also members of the Victorian Bioinformatics Consortium (VBC), as well as Professor Ross Coppel, the Director of the VBC.

The CSRU is a member of the Australian Partnership for Advanced Computing (APAC) Grid Program, and the goal of the Program is to provide computing support to co-ordinated programs in research, education and technology. These goals are in-line with the Parasitology Network's IT program of providing computing and IT support to discovery in areas of research that have reached a bottleneck, as well as to create a web-based comprehensive resource for Parasitology Network members.

The priority for CSRU for 2006 will be to build a user-friendly, virtual organisation platform that is web-based and searchable, and that provides a comprehensive resource for access to parasite databases, parasite genomes, bioinformatic analysis tools, as well as parasitology resources and protocols.



Photo courtesy of Sabina Belli. (L to R) Tim Langtry, Torsten Seemann, Tony Maher, Sabina Belli, Ross Coppel, David Powell, Ayesha Fernando

### ***Grants, awards and prizes***

#### **[5] DEST Endeavour Scholarship for Eithne Cunningham**

Eithne Cunningham, a PhD student from the Department of Microbiology, Trinity College Dublin, Ireland, was awarded a one-year DEST Endeavour Scholarship to work in the laboratory of Prof. John P. Dalton, Institute for the Biotechnology of Infectious Diseases, University of Technology, Sydney on 'Leucine aminopeptidases of *Plasmodium falciparum*'.

### ***Conferences***

#### **[6] Cell Organelles of Protozoan Parasites: From Basic Science to Drug Targets, from 5 to 7 June, 2006, in Prague, Czech Republic.**

**First announcement and call for papers for the Extended COST B-22 Expert Meeting, organised in cooperation with Czech Society for Parasitology**

**Location:** Prague, Czech Republic, Conference Hall of the Novotel Praha City Hotel

**Date:** 5 to 7 June, 2006

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### Topics:

Organelles of pathogenic protists: cell biology, molecular biology, biochemistry.

Metabolic pathways, transport mechanisms and biogenesis of organelles as targets for antiparasitic chemotherapy.

Potential targets for new drugs, mode of action of available drugs, drug resistance.

### Speakers:

Aloysius G. M. Tielens (NL), Jaap van Hellemond (NL), Julius Lukes (CZ), Martin Embley (UK), Jorge Tovar (UK), Jan Tachezy (CZ), Patricia Johnson (USA), Katrin Henze (D), Dominique Soldati (D), Stuart Ralph (AU), Fred Opperdoes (B), Paul Michels (B), Henry Vial (F), Hagai Ginsburg (IL), Graham Coombs (UK), Michael Lanzer (D), Adrian Hehl (CH) among others.

### Preliminary registration:

Please, visit the conference home page and register on line

<http://profiwebhosting.com/cost-meeting/>. **The deadline for preliminary registration is 10 February, 2006.**

**Accommodation:** Please check hotel contacts on the web page and **make your booking as soon as possible.**

### Contact address:

**Department of Parasitology, Faculty of Science, Charles University in Prague**

**Vinicna 7, 128 44 Prague 2, Czech Republic**

**E-mail: [tachezy@natur.cuni.cz](mailto:tachezy@natur.cuni.cz) , [kulda@natur.cuni.cz](mailto:kulda@natur.cuni.cz)**

Also note that COST B22 activities planned for the year 2006 are now being advertised on the COST B22 website (<http://www.icp.ucl.ac.be/cost/costB22/>).

### **[7] Apicomplexan Biology in the Post-Genomic Era: COST Action 857, 3<sup>rd</sup> Annual Workshop in Dresden, Germany from May 17<sup>th</sup>-20<sup>th</sup>**

The goal of COST Action 857 is to promote understanding of the biology of apicomplexan parasites and to enhance the search for therapeutic strategies against diseases that they cause in the light of the advances in genomics.

This meeting will occur in Dresden, one of the most beautiful cities of Germany. The venue will be the First-Class Hotel Elbflorenz, situated in the World Trade Centre near the historic centre of Dresden.

**To register for this conference please email [rudolf.entzeroth@tu-dresden.de](mailto:rudolf.entzeroth@tu-dresden.de). The deadline for registration is 10 March 2006.**

I will be subscribing all registered Network Participants onto a list-serve mailing list to send out future communications, like the monthly Newsletter. **You will receive an email from 'parasite-network-request' shortly with [Parasite-network] in the heading to confirm your Network Mailing List Subscription and password.** Please contact me if you have any queries, or if you need to update your email address.

Don't forget that the Network newsletters can now be downloaded  
[http://www.parasite.org.au/arcnet/Newsletter/Newsletter\\_310106.pdf](http://www.parasite.org.au/arcnet/Newsletter/Newsletter_310106.pdf)

**Please send me items for the next newsletter by 21 February 2006.**

Best wishes,

Lisa  
Communications Coordinator, ARC/NHMRC Research Network for  
Parasitology