ARC/NHMRC RESEARCH NETWORK FOR
PARASITOLOGY

Thursday, 5 April 2007

Dear Network Participant,

The Easter edition of the Network Newsletter has the following items of interest for you:

[1] 2007 ASP & ARC/NHMRC Research Network for Parasitology Annual Conference will take place from Sunday 8 – Wednesday 11 July at the Marque Hotel*, Canberra

* formerly The Chifley Hotel

The following speakers and sessions have been confirmed for the Scientific Programme of the 2007 ASP & Network Annual Conference:

Functional Genomics

- Artur Scherf (Institut Pasteur, Paris, France)
- Eileen Devaney (University of Glasgow, UK)
- Alan Cowman (Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia)
- Carolyn Behm (Australian National University, Canberra, Australia)
- Matt Berriman (Sanger Centre, UK)

Evolutionary Biology of Parasites

- Robert Poulin (University of Otago, Dunedin, New Zealand)
- Ian Beveridge (The University of Melbourne, Australia)
- David Blair (James Cook University, Townsville, Queensland)

Parasites in Wildlife and Conservation Biology

- Peter Daszak (Consortium for Conservation Medicine, New York, USA)
- Michael Bull (Flinders University, Adelaide, Australia)
- David Jenkins (SE Australian Hydatid Control and Epidemiology Campaign, Canberra, Australia)

Immunology, Immunomodulation and Vaccines

- Maria Yazdanbakhsh (Leiden University, The Netherlands)
- Sheila Donnelly (Institute for the Biotechnology of Infectious Diseases, UTS, Sydney, Australia)
- Christian Engwerda (Queensland Institute of Medical Research, Brisbane, Australia)
- Magdalena Plebanski (Austin Research Institute, Melbourne, Australia)
- Nick Smith (Institute for the Biotechnology of Infectious Diseases, UTS, Sydney, Australia)
- Richard Grencis (University of Manchester, UK)

Drug Targets, Drugs and Drug Resistance in Tropical Parasites

This theme is co-sponsored by the Royal Society of Tropical Medicine and Hygiene as part of its Centenary Year Celebrations

- Michael Barrett (University of Glasgow, UK)
- Sanjeev Krishnan (St George's University of London, UK)
- Kiaran Kirk (Australian National University, Canberra, Australia)
- Kathy Andrews (Queensland Institute of Medical Research, Brisbane, Australia)

- Warwick Grant (La Trobe University)
- Akhil Vaidya (Drexel University, USA)
- Scott Landfear (Oregon Health & Science University, USA)

This conference is an opportunity for parasitologists from Australia, and around the world, to discuss the latest research in parasitology. It will run over four days beginning with a Welcome reception on Sunday evening (8th), the scientific program will start Monday (9th) morning, and will culminate with the conference dinner on Wednesday (11th) evening. There will be plenty of opportunities for contributed talks and posters on any and every topic parasitological.

Registration

	ASP Members+		Non-Society Members	
	Student	Regular delegate	Student	Regular Delegate
Registration after 30/03/06	$300	$450	$400	$550

+ Or another parasitological society (COST B22, COST 857, BioMalPar, Quebec Centre for Host-Parasite Interactions, NZSP) please specify which society when registering.

Conference Registration will close after 11 May 2006.

Please register online for this conference
http://www.parasite.org.au/arcnet/conference

Registration fees are quoted in Australian dollars and include: Entrance to all sessions; meals from 9/7/07 – 11/7/07 inclusive which means evening meals, lunches, and morning and afternoon teas; Entrance to Poster Viewing sessions with free drinks and snacks; the Conference Dinner with pre dinner drinks; the evening Welcome reception on 8 July; and other social events.

Please note that registration does not include accommodation. Conference delegates must book their own accommodation for this conference.

free early career researchers and students breakfast…
The Network is organising and sponsoring a free early career researchers and students breakfast on Monday 9 July 2007 to enable postdoctoral researchers and students to speak to prominent parasitologists about their career and to meet like-minded peers. To attend this breakfast please confirm your booking with Lisa Jones by email lisa.jones@uts.edu.au or by telephone 02 95144006 by 11 May 2006.

early career researchers prize…

Don't forget that the Network will, once again, be awarding up to two prizes to "Early Career Researchers". The prizes will be for the best conference presentations (whether poster or oral presentations) by postdoctoral researchers (currently based in Australian institutions) who are within 10 years of receipt of their PhD. To be eligible for consideration, candidates must be in non-tenured positions and be the first author and presenter of a talk or poster at the annual conference. The prizes will be in the form of travel grants (valued up to $4000-5000) to attend, and present at, the annual meetings of one of our sister networks in Europe, Canada or Southeast Asia.

If you would like to be considered for one of the Early Career Researcher Awards, you should register with Lisa lisa.jones@uts.edu.au with the title of your presentation and a statement about your qualifications (i.e. date and place of award of PhD) and your current position. Please note that if it is more than 10 years since the award of your PhD but you have experienced career interruptions, you may still be eligible for consideration - please include a statement explaining why you believe you should be eligible despite more than 10 years passing since the award of your PhD.

ASP student members who have a poster or who are presenting at the conference should register with Lisa lisa.jones@uts.edu.au so that they are eligible for the ASP student prizes.

Don't forget that student ASP members are eligible for generous financial assistance to attend the conference from the ASP provided they have been members for a minimum period before the conference – so download an ASP membership application form now from the ASP website http://www.parasite.org.au/member.htm

To register please visit our online conference system at www.conftool.net/parasitology2007

Please check the website http://www.parasite.org.au/arcnet/conference for all matters regarding the conference, including additional tickets for guests, hotel accommodation, and the social programme. I will be processing conference registration payments that I've received this past week on 16/04/07.

[2] 2006 Annual Report for the ARC/NHMRC Research Network for Parasitology

Download the Annual Report (2006) for the ARC/NHMRC Research Network for Parasitology Report to gain a statistical "snapshot" of the Network for 2006, an up-to-date register of Participants, and to find out about contributions and achievements of Network Participants and plans and strategies for 2007.

To download the 2006 Annual Report for the ARC/NHMRC Research Network for Parasitology go to the Network website http://www.parasite.org.au/arcnet/reports

[3] Report on the First Australian *C. elegans* Meeting

It was a historical event when Australia's *C. elegans* researchers came together for the first time for what was the First Australian *C. elegans* Meeting. This event was organised and hosted by the Behm lab at the ANUs Kioloa Coastal Campus on the 26th – 28th March. A number of labs throughout Australia were represented. These included members from Dr Stephen Trowell's group at CSIRO Entomology, Associate Professor Carolyn Behm's group at The Australian National University, Dr Paul Eberts group at The University of Queensland, Dr Peter Hunt at CSIRO Livestock Industries, Dr Hannah Nicholas' group at the University of Sydney and Dr Warwick Grant's group now at LaTrobe University. A range of topics were discussed, ranging from olfaction and various developmental processes in *C. elegans*, to how *C. elegans* research can contribute to the parasitic nematode community. All presentations were of a high standard. The meeting also provided PhD and honours students with an informal setting in which to present their projects. We look forward to the Second Australian *C. elegans* Meeting to be held in March next year.

For copies of presented abstracts, please contact Julie-Anne.Fritz@anu.edu.au

Awards

[4] Network Travel Award Winners

Congratulations to the most recent Network Researcher Exchange, Training and Travel Award winners:

- Ms **Adele Lehane**, PhD candidate from the Australian National University to attend the Biology of Parasitism Course at Woods Hole USA from June - August 2007;
- Prof **Alan Cowman**, from The Walter & Eliza Hall Institute of Medical Research to support the Molecular Approaches to Malaria (MAM) 2008 Meeting 3rd– 7th February 2008, Lorne Victoria;
- Prof **Mike Bull**, Flinders University of South Australia for a workshop a two day symposium to be held at Flinders University in June 2007. The theme of the symposium is "Parasites, Conservation, and Evolutionary Ecology; Connecting some disparate threads".
- Ms **Stephanie Godfrey** PhD student, Flinders University of South Australia for a Researcher Exchange 27th May – 18th June 2007: 3 week visit to Prof. J. Krause's laboratory at the University of Leeds (UK), and Dr. Dick James at the University of Bath (UK) to learn social network analysis and modelling techniques; and
- Dr **Mal Jones** from the Queensland Institute of Medical Research a workshop on Tuesday March 27, entitled "Genomic and proteomic analyses of secretions of parasitic helminths"

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

Profile

[5] Mai Tran from the Queensland Institute of Medical Research (QIMR) awarded a one year Fulbright Scholarship and an ARC/NHMRC Research Network for Parasitology Travel Award

Mai Tran (pictured above) is a postdoctoral fellow at the Helminth Biology Laboratory, Queensland Institute of Medical Research (QIMR). She has been awarded a one year Fulbright Scholarship to conduct research in the United States. Mai was awarded an ARC/NHMRC Research Network for Parasitology Travel Award for a Researcher Exchange to visit the Biomedical Research Institute (NIAID/NIH) in Rockville, USA early in 2007. Mai talks to Lisa Jones about her Network Travel Award and her Fulbright Scholarship.

Mai, tell me about your research?

> "I work on schistosomiasis which is caused by the blood fluke, schistosoma. Currently treatment of schistosomiasis relies on widespread chemotherapy and there is no available vaccine.
>
> At QIMR, we have identified a surface protein called tetraspanin (TSP-2) as a vaccine target. Mice immunised with recombinant TSP-2 and then challenged with schistosomes elicit reduction in adult worm burden, liver and fecal egg counts by more than 50%. An interesting finding is that in endemic areas, individuals who are thought to be resistant to Schistosoma mansoni develop significantly higher IgG1 and IgG3 antibody responses against TSP-2 in comparison to chronically infected people or control groups.
>
> Tetraspanins are expressed on the surface of schistosomes where host-parasite interact. We wish to determine the biological function of tetraspanins on the surface of schistosomes and the host molecule(s) they interact with. We also aim to further investigate TSP-2 as a schistosomiasis vaccine candidate."

Mai started her career in cancer research and then moved into parasitology. Mai, what interests you about working in this area?

"The project has so much diversity - molecular cloning, protein expression and purification, parasite culture, mouse vaccine trials, immunology and many more. I am always learning new techniques or improving my techniques to work efficiently."

How has the Network travel award helped your research develop?

"First of all, I'd like to thank the Network for the travel award. It has enabled me to visit the Biomedical Research Institute (NIAID/NIH) in Rockville, USA. The Institute maintain schistosome life cycle and supply parasites to over 50 laboratories worldwide free of charge.

I was able to collect and culture large quantities of young schistosomes which will be utilised to study differential expression by microarray."

What advice do you have for other network scientists who want to apply for a travel award?

"I think one of the hardest things in science is finding money for travel whether it's for conference, course or visit to another lab to enhance one's research. With the travel award, the Network has eased the burden on many laboratory heads.

Moreover, the experience gained during the travel can be added and improve ones CV."

What advice do you have for science students who are considering parasitology as a career?

"There are so many different types of parasites; science students are likely to find one or a group which will interest them. It is amazing to look at schistosomes in culture – how they elongate, feed on blood and the interaction between male and female adult worms. Other area of science such as immunology, molecular biology and biochemistry can be applied to parasitology."

Tell me about winning the Fulbright Scholarship?

"The Fulbright Program is the largest international educational and cultural exchange program in the world, operating between US and over 150 countries worldwide". The program offers PhD, Postdoctoral and professional awards to all areas of study including science and technology. If members of the Network wish to conduct research in the US, I encourage them to visit the Fulbright website (www.Fulbright.com.au). Short-listed PhD and Postdoctoral candidates are required attend an interview with a multi-discipline panel (barrister,

US consulate general, editor of newspaper and head of a university department).

The Fulbright scholarship has given me an opportunity to extend my current research project. In July this year I will join the laboratory of Prof Ed Pearce at The School of Veterinary Medicine, University of Pennsylvania, Philadelphia to gain experience in RNA interference and aim to silence tetraspanin genes in young schistosomes. In addition, I will work at the Biomedical Research Institute (NIAID/NIH) in Rockville, Maryland to conduct more vaccine trials in mouse model of schistosomiasis and determine the efficacy of TSP-2 as a schistosomiasis vaccine candidate.

Fulbright scholars are also involved in ambassadorial responsibility and I look forward to these commitments and meeting scholars from other countries."

How do you see your research developing in the future?

"Hopefully after a year research in the US, I will have a better understanding of tetraspanin and its association with schistosomes.

In collaboration with US and Brazil, the Helminth Biology Laboratory aim to apply funding through NIH or the Gates Foundation to develop a human schistosomiasis vaccine."

What do you see as the benefits of being part of the network?

"The Network has provided excellent opportunities to communicate and collaborate, exchange wealth of information and expertise and also funding."

Tell me about the highlight of your career so far?

"Two highlights – the day I submitted my PhD thesis; and our paper published in Nature Medicine last year and making the front cover of that issue. Tran MH, Pearson MS, Bethony JM, Smyth DJ, Jones MK, Duke M, Don TA, McManus DP, Correa-Oliveira R, Loukas A. Tetraspanins on the surface of Schistosoma mansoni are protective antigens against schistosomiasis Nature Medicine 2006 Jul; 12(7):835-40. Epub 2006 Jun 18"

What would you like to do in the future?

"I would like to be CI or co-CI on a grant – funded, of course."

We wish Mai the best of luck with her future research and for her Fulbright Award.

Positions vacant
Check the Network website for all current vacancies
http://www.parasite.org.au/arcnet/jobs

[6] Senior Scientist (Immunochemistry) at Queensland Department of Primary Industries and Fisheries

This is a team based role where you will participate in research, development and extension projects primarily in the application of immunology and biotechnology to improve animal production including the control and diagnosis of livestock diseases. You will work collaboratively in a multidisciplinary team and with external stakeholders to develop and implement improved animal health technologies.

The key responsibilities of this job are to:

- Identify, develop and undertake research projects on the applications of immunology and biotechnology for the control of pests and diseases of livestock relevant to Departmental goals;
- Work as part of a team or independently to ensure project and Departmental milestone, reporting and budget deadlines are met;
- Analyse and report research results to DPI&F, Funding Bodies, Scientific Journals and at scientific venues.
- Maintain professional networks and mentor junior staff and students.

Some of the current priorities of this job are:

- Provide immunological input to Poultry Cooperative Research Centre project on developing improved coccidiosis vaccines.
- Provide immunological input to Beef Cooperative Research Centre III and Smart State projects on cattle tick control.
- Develop own portfolio of externally funded research projects.

Key skills, knowledge and experience required to undertake this job are: (Applicant, please note these are the criteria for assessment of your job application.)

- Demonstrated ability to conduct and publish high standard scientific research.
- Knowledge and experience in immunology research.
- Knowledge and experience in additional relevant areas e.g. molecular biology, disease organisms or tissue culture.
- High standard of written and oral communication skills.
- Project and people management skills.

Mandatory Qualification required to do this job:

A Degree in Science or Agricultural Science with knowledge and skills in immunology from a recognised tertiary institution, or equivalent academic qualifications.

Classification level, Tenure and Salary: PO4, Permanent Full-Time, ($66582-$71730 p.a.)

Work unit and Location: Molecular Bioscience Technologies, Yeerongpilly

Closing date: 5:00 pm Midnight, 16 April 2007

How to apply?

Please submit your current resume including relevant work history. Your resume needs to provide information which demonstrates:

- that you possess the key skills, knowledge and experience as outlined above
- and have the mandatory qualifications.

Find out more about Qld DPI&F at http://www.dpi.qld.gov.au. If you would like to know more about this job and the work environment, please phone Wayne Jorgensen on (07) 33629455. This allows you to discuss what is required of the job and whether it meets your interests, experience and qualifications.

[7] Post-doctoral Research Fellow positions in Molecular Epidemiology / Molecular Parasitology (PNG IMR)

The **Papua New Guinea Institute of Medical Research** (PNG IMR) is one of the leading biomedical research institutes in the developing world and for over 40 years has conducted research into the health problems of the people of Papua New Guinea. For its well established Vector Borne Disease Unit which conducts research in biomedical, clinical and public health aspects of malarial we are looking for:

•Molecular Epidemiologist
•Molecular Parasitologist or Geneticist

Molecular Epidemiologist
As part of a recent laboratory upgrade, the PNGIMR has recently established a new laboratory for PCR-typing of malarial infections in large field and intervention studies using a novel post–polymerase chain reaction (PCR)/ligase detection reaction–fluorescent microsphere assay (McNamara et al, 2006, Am. J. Trop Med. Hyg, 74, 413-421). The same technology will also be used to genotype malaria infections for markers of drug resistance and for

typing of human genetic polymorphisms related to malaria resistance & susceptibility. In order to supervise the new laboratory and participate in the development of new assays we are currently looking for an enthusiastic post-doctoral research fellow with a solid base in molecular biology and experience in the conduct of molecular epidemiology studies in tropical settings. Experience in malaria research and epidemiological data analysis would be advantageous but are not a prerequisite. The position is available immediately and a start date can be negotiated.

Molecular Parasitologist or Geneticist
In collaboration with our extensive group of renowned international collaborators, the PNGIMR molecular parasitology unit is conducting research into the basic biology and genetic diversity of *P. falciparum* and *P. vivax* as well as human host genetic adaptations to malarial infections. The unit has well established facilities for *P. falciparum* and recently *P. vivax* in-vitro culture as well as for studies of parasite and host genetics. In order to assist with the supervision of the unit and participate in our extensive ongoing research program, we are looking for either molecular parasitologist or geneticist with prior expertise in malaria or human genetic research. The position is available by September 2007, but a later start date may be negotiated.

Both positions require a willingness to engage with ongoing field studies and travel both domestically and internationally. The successful applicants will be expected to train & lead small team of laboratory technicians, MSc and BSc(honors) students and are encouraged to develop a research agenda in their respective fields. The positions will be offered at Research Fellow or Senior Research Fellow level depending on qualifications and experience. Remuneration will be in accordance with PNG public service salary scales and include a base salary (range 16,000-20,000 USD pa) and gratuity, free housing, school fee support, emergency health coverage and a leave fare to place of recruitment every 18 months. The positions may allow the holders to supplement their income through a limited amount of external grant funding or paid consultancies.
These positions offer the unique opportunity to conduct cutting edge research in a stimulating, collaborative environment and contribute towards alleviating the burden placed by malaria on people in Papua New Guinea and beyond.

For further information, job description and selection criteria, please contact Dr. Ivo Mueller, Head Vector Borne Disease Unit, PNG Institute of Medical Research, P.O. Box 60, Goroka EHP 441, Papua New Guinea. Tel. +675 852 2962, Fax +675 852 3289, email: pngimr_ivo@datec.net.pg

If you have any parasitology news stories please contact me by email Lisa.Jones@uts.edu.au or telephone 02-95144006.

Please send me items for the next newsletter by 21 February 2007.

Best wishes,

Lisa
Communications Coordinator,
ARC/NHMRC Research Network for Parasitology

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