



# The Australian Society for Parasitology Inc

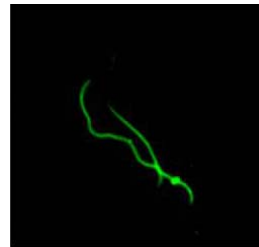
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*Images: Trypanosoma sp. from Gilberts Potoroo by Jill Austen and Dick Walker*



# COUNCIL OF THE AUSTRALIAN SOCIETY FOR PARASITOLOGY INC.

## Executive

**President:** Shelley WALTON  
Infectious Diseases Division  
Menzies School of Health Research  
PO Box 41096 Casuarina  
Darwin NT 0811  
Tel: (08) 8922 8928  
Fax: (08) 8927 5187  
Email: Shelley.Walton@menzies.edu.au

**Executive Secretary:** Lois SMALL  
Department of Primary Industry, Fisheries and Mines  
GPO Box 3000, Darwin NT 0801  
Tel (08) 89 992245 Fax: (08) 89 992024  
Email: lois.small@nt.gov.au

**Treasurer:** Deborah HOLT  
Infectious Diseases Division  
Menzies School of Tropical Health  
PO Box 41096 Casuarina, DARWIN 0811  
Tel: (08) 8922 8928  
Fax: (08) 8927 5187  
Email: Deborah.Holt@menzies.edu.au

**Vice-President:** Malcolm JONES  
Molecular Parasitology Laboratory  
QIMR  
Herston QLD 4006  
Tel: (07) 3362 0406  
Fax: (07) 3362 0104  
Email: malcolmJ@qimr.edu.au

**President-elect:** Peter HOLDSWORTH  
Animal Health Alliance (Australia) Ltd  
Locked Bag 916  
CANBERRA ACT 2601  
Tel: (02) 6257 9022 Fax: (02) 6257 9055  
Email: peter.holdsworth@animalhealthalliance.org.au

## Other Members

**IJP Editor:** Brendan CRABB  
The Walter & Eliza Hall Institute of Medical Research  
1G Royal Parade  
Parkville Victoria 3050  
Tel: (03) 9345 2469  
Fax: (03) 9347 0852  
Email: crabb@wehi.edu.au

**Archivist:** Carolyn BEHM  
School of Biochemistry and Molecular Biology  
Australian National University  
Canberra ACT 0200  
Tel: (02) 6125 2203  
Fax: (02) 6125 0313  
Email: carolyn.behm@anu.edu.au

**Newsletter Editor:** Michelle POWER  
Biological Sciences  
Macquarie University  
North Ryde, NSW 2109  
Tel (02) 9850 6978  
Fax (02) 9850 8245  
mpower@els.mq.edu.au

**Bancroft-Mackerras Medal  
Convenor:** Andrew THOMPSON  
School of Veterinary and Biomedical Sciences  
Murdoch University  
Murdoch WA 6150  
Tel (08) 9360 7423  
Fax: (08) 9310 4144  
Email: a.thompson@murdoch.edu.au

**Incorporation Secretary:**  
Danielle Smythe  
Infectious diseases & Immunology  
QIMR  
Herston QLD 4006  
Tel: (07) 3845 3726  
Fax: (07) 3845 3507  
Email: Danielle.Smyth@qimr.edu.au

## State Councillors

**ACT:** Adele LEHANE  
School of Biochemistry and Molecular Biology  
Australian National University,  
Bldg 41, Linnaeus Way, Canberra ACT 2006  
Tel: (02) 6125 8589  
Fax: (02) 6125 0313  
Email: adele.lehane@anu.edu.au

**NSW:** Kate MILLER  
Institute for the Biotechnology of Infectious Diseases  
University of Technology, Sydney  
PO Box 123, Broadway, NSW, 2007  
Tel: (02) 9514 4006  
FAX: (02) 9514 4201  
Email: catherine.miller@uts.edu.au

**NT:** Kate MOUNSEY  
Infectious Diseases Division  
Menzies School of Tropical Health  
PO Box 41096 Casuarina, DARWIN 0811  
Tel: (08) 8922 8599  
Fax: (08) 8927 5187  
Email: kate.mounsey@menzies.edu.au

**Qld:** Katherine TRENHOME  
Queensland Institute of Medical Research  
300 Herston Road, Herston, Qld 4006  
Tel: (07) 3362 0432  
Fax: (07) 3362 0104  
Email: KathT@qimr.edu.au

**SA:** Kate HUTSON  
Marine Parasitology Laboratory, School of Earth & Environmental Sciences  
The University of Adelaide,  
DX 650 418, Adelaide, SA 5005  
Tel: (08) 8303 5282  
Fax: (08) 8303 4364  
Email: kate.hutson@adelaide.edu.au

**Tas:** Barbara NOWAK  
School of Aquaculture  
University of Tasmania  
Launceston TAS  
Tel: (03) 6324 3814  
Fax: (03) 6234 3804  
Email: b.nowak@utas.edu.au

**Vic:** Jody ZAWADSKI  
Primary Industries Research Victoria  
475 Mickleham Road  
Attwood, 3049 Victoria  
Tel (03) 9217 4380  
Fax: (03) 9217 4299  
Email: Jody.Zawadski@dpi.vic.gov.au

**WA:** Caroline BATH-JACOBSEN  
School of Veterinary and Biomedical Sciences  
Murdoch University  
Murdoch WA 6150  
Tel (08) 9360 2457  
Fax (08) 9310 4144  
Email: cbath@murdoch.edu.au



# FROM THE PRESIDENTS DESK



I would firstly like to congratulate all those who were successful with ARC and NHMRC funding for 2008. It is encouraging to see that over \$30 million has been awarded to research relating to the field of parasitology via fellowships, scholarships, projects, linkage and program grants. My commiserations to those who submitted grant applications but were unsuccessful this year. Hopefully with continued application and perseverance these projects will receive funding in the future.

The ASP Executive committee has been very industrious over the last few months. Activities have included recruiting a new webmaster, and I would like to take this opportunity to welcome Dr Jason Mulvenna to the ASP council. The issue of upgrading the web hosting arrangements for the ASP webpage is on the agenda for the council mid term meeting in early February 2008. If anyone has any comments to make in this regard please contact Jason so he is able to incorporate them in his report to council. In collaboration with Jason and the ASP newsletter editor Michelle Power the Executive

Committee has also been reviewing and updating the ASP award details on the webpage and in the newsletter so they are all in line with the constitution.

At the 2007 ASP AGM the council was requested to look at the ASP logo with the view to either modernise or change it to a more contemporary version, or alternatively retain the traditional version, with any final decisions to go to a general Society vote. The logo is a small but significant component of our professional image to the global scientific community and it is important the format is such that can be utilised by all forms of media. By now you all will have been emailed and asked to vote for either a new logo concept, a modernised version of the original, or to retain the original. This is quite an emotive issue for some but as it is a whole Society decision I ask you all to accept the outcome when we release the result after the final tally of votes.

The Australian Biological Resources Study (ABRS) with the Department of Agriculture, Forestry and Fisheries (DAFF) and the Federation of Australian Scientific and Technological Societies (FASTS) convened a national forum on taxonomy in Sydney in October. As this is a matter close to the heart of many parasitologists the ASP was represented at this forum by two members Ian Beveridge and Michelle Power. The aim of this meeting was to establish a national strategic direction for taxonomy investment and research over the next four years. Additionally Catherine Millar represented the ASP at The Australian Society for Medical Research (ASMR) Directors meeting in Sydney in September at which ASMR reported on its activities and initiatives on

behalf of Australian Health and Medical Research. Reports from both these meetings will be submitted and discussed at the MTM along with any future directions/activities required by ASP.

The ASP/ARC Network Scientific Conference 2008 in Glenelg, Adelaide appears to be well on track and an organising committee for the 2009 meeting in Sydney has now also been established and a potential venue selected. Of note the ASP and ARC/NHMRC Parasitology Network have also agreed to be joint section participants at the 2008 ASMR Congress in Brisbane in November and will be represented by Malcolm Jones on the Program Organising Committee. This is a great opportunity to showcase the contribution of Australian parasitology to medical research in Australia at minimal cost to ASP and the ARC/NHMRC Parasitology Network.

Finally with the recent Ruddslide federal election result and the announcement of Julia Gillard as Education Minister and Senator Kim Carr as Minister for Innovation, Industry, Science and Research we will hopefully see some well needed changes and improvements to education and science in Australia. Of immediate relevance was their pre election pledge to abolish the Howard Government's Research Quality Framework, and replace it with a "new, streamlined, transparent, internationally verifiable system of research quality assessment, based on quality measures appropriate to each discipline". Here's hoping!!!

Best wishes for the New Year.

Shelley Walton



# FROM THE NEWSLETTER EDITOR

The following letter was sent by Len Thomas a founding member of the ASP to Kath Trenhome. It has served as inspiration for editorial that follows.

*Dear Kath,*

*I am writing to you as the Queensland State Councillor for ASP. We have never met but I am a Life Member of the Society. I have now passed my eightieth birthday and as I am unlikely to wish to attend any future conferences, I have written to the Secretariat asking that they restrict future mailings to the Newsletter. This will ease the pressure on finances if nothing more. Regrettably, the main items which attract my attention in the Newsletter are the obituaries of more distinguished contemporaries who have made major contributions to the Society. By comparison, my contribution has been modest with perhaps being the founder and original keeper of the Register of Living Parasite Cultures and being a member of the organising committee for the ICOPA meeting when it was held in Brisbane, the only noteworthy items.*

*I am pleased to see that the Register continues to be revised. There is apparently a need to source specimens from other members as I noted in the September Newsletter that there was some trading of sheep nematodes at the Annual Conference. It struck me that one item traded was *Teladorsagia circumcincta*. When I was working with sheep nematodes during the development of phenothiazine as an anthelmintic, it was called *Ostertagia circumcincta*, but apparently it is still worthy of study. *Boophilus microplus* is now *Rhipicephalus microplus* but it is still producing resistant strains. Other things which haven't changed are *Lucilia* and lice on sheep which I worked on from before DDT, through to the days of the OP compounds that are still around. I also noted that a new initiate to the world of parasites was required to take over 100 faecal samples for egg counts. A common daily task for juniors some time ago also, and when the McMaster/Whitlock counting chambers were the latest technological advance they made 100 counts a day possible. There were worse tasks for new initiates back then...*

*Kind regards, Len Thomas*

The letter from Len started me wondering about change, and how changes over the years, have impacted / reflected on the ASP. I started with IJP, and Maria Meuleman who informed me that in the early days of IJP John Sprent placed emphasis on third world manuscripts. The early years of IJP also paved the publication path for much of Australian Parasitology and served as a unique forum for Australian Parasitologists to convey their findings. In the past IJP also included many taxonomic publications on species descriptions of Australia's endemic parasites. These days we see a diversity of themes within IJP representing scientific advances from around the globe. As the journal approaches its 38<sup>th</sup> year it sees fourteen issues published per year compared to four issues of Volume 1. There are now some 1800 pages of parasite data reported in IJP per year, some 1500

pages or so more than early IJP volumes. Over the past 37 years IJP has undergone much change and evolved into a highly internationally competitive journal. The many changes that IJP has undergone have cascaded into the Australian Parasitological Society in quite a remarkable way.

The IJP royalties that the ASP receives has enabled the Society to support all manner of things including significant support to students in the form of prizes and travel awards. Over the years we have seen changes in the numbers of awards and increases in the value of prizes. In the short time that I have been involved with the ASP I have seen financial assistance provided to maintain parasite collections, promotion of Parasitology to the public via various schemes, education tools and more recently the backing of the ACR/NHMRC

Network for Parasitology. The successful awarding of the Network has also contributed to significant changes to the Society. The membership has been steadily increasing, Australian parasitologists are forming a large single community and our global profile is gaining momentum. I suspect that these changes will see ICOPA XII as the Parasitology equivalent of Sydney 2000 (which at the moment seems to be the 20<sup>th</sup> WAAVP).

At a recent ABRIS workshop I observed how 'anti-change' the scientific community can be. Successful grants require 'sexy science' and taxonomy, as a singularity, does not quite cut it here. However I would expect that many successful parasitology grants contain aspects related to taxonomy that are buried within the 'sexy science'. And if they do not adding a taxonomic component and a taxonomist would surely bolster an application. Successful science is moving towards multidisciplinary collaborations and it became apparent at the ABRIS workshop that the future of taxonomy will require some creative thinking and significant changes for successful funding.

As we move into 2008 there are changes sitting on the doorstep of the Society. Several come to mind but perhaps the suggestion to change the ASP logo is the one that stands out at this point in time. I find it interesting that the logo has only appeared on IJP articles since 1998 (something that did happen in my time). As members of the ASP we are given a chance to vote on changes relevant to the Society. So perhaps before we make decisions on future changes it is worth thinking about the enormous benefits that change has provided to the ASP and to Australia's Parasitology community.

I wish you all the best for 2008. Thank you for your contributions and please keep them coming.

Michelle Power





## AWARDEE

### CATHERINE JAMES

I recently returned from my three month researcher exchange to the Institute of Parasitology at McGill University in Montréal for which I was awarded a JD Smyth Travel Award from the Australian Society for Parasitology and an ARC/NHMRC Network for Parasitology researcher exchange travel award. At the institute I was working under the supervision of Prof. Roger Prichard and undertook a global proteomic analysis of ivermectin-resistant *Caenorhabditis elegans* using the Ciphergen Proteinchip system. This system utilises the latest in surface-enhanced laser desorption/ionisation (SELDI) technology, enabling on-chip protein purification via many properties (ion-exchange, affinity, hydrophobicity) and profiling. There are a number of researchers at the Institute of Parasitology using this technology for biomarker discovery and profiling. The first month I was trained on the use of the SELDI equipment and prepared my samples for analysis and subsequent months consisted of sample processing and data analysis. Luckily the institute possessed the new software for SELDI data analysis which helped with processing the numerous samples. The work went well after much optimisation and this has now armed me with many interesting results to follow-up and further validate with other methods. During my stay I was also given the opportunity to network with many prominent researchers in my field.

It was certainly a privilege for me to be able to bounce ideas around with members of the institute, particular thanks to Prof. Prichard, Prof. Tim Geary and Prof. Robin Beech who

shared some of their copious knowledge of anthelmintic resistance.

One very interesting day for me was toward the end of my stay when the institute was visited by the developer of ivermectin, William Campbell and I was lucky to be invited to sit in on a discussion about our ivermectin research with him and the institute. I was given many opportunities in Prof. Prichard's laboratory to present and talk about my work including visiting members of Fort Dodge research and visiting members from the WHO on the filarial control programs.

Certainly one of the bonuses of visiting McGill University is its location. True to Montréal form I experienced nearly all four seasons in three months, from rain to snow, sleet to excessively hot and humid days. I was fortunate to also experience a number of traditional Québec rituals, including a trip to one of Montréal's sugar-shacks during their maple 'sugaring off' season for an interesting meal of meat and vegetables bathing in maple syrup (surprisingly not too bad). With many things to experience in Montréal and Ottawa only 2 hours away by train I had many things to occupy me in between work.

This experience has been extremely valuable for both my PhD work, for collaborations to begin and gave me the opportunity to meet many great friends and colleagues. Finally, I would sincerely like to thank both the Australian Society for Parasitology and the ARC/NHMRC Network for Parasitology for funding my researcher exchange.

All is going well with the IJP. The editorial office and editors are being kept very busy. Submissions for 2007 reached 576, which was slightly less than the expected, but consistent with the record of 582 in 2006. To close the year the IJP team combined a Christmas dinner at Jimmy Watsons with a discussion on Journal Strategy for 2008. This first installment of a plan to raise the profile of the journal is the new cover design that will appear from January 2008. Please remember that feedback from members is always welcome.

We hope that all ASP members had a Merry Christmas and wish you all Happy and Prosperous New Year.

Brendan Crabb

## Cover

The images on the cover and below were provided by Murdoch PhD student Jill Austen. The images were captured with her colleagues Dick Walker and Derrick Robinson. The Trypanosomes are novel species from Australia's most endangered marsupial, the Gilberts potoroo (below).



# NETWORK NEWS

**Lisa's baby news:** Lisa is on maternity leave at the moment having welcomed a 3.7kg baby daughter, Beatrice Rose, into the world on 4 October 2007.

## Welcome to newest Network staff member, Wendy Relf

We welcome our newest Network staff member, Dr Wendy Relf who will be working as a part-time Administration and Communications Officer for the ARC/NHMRC Research Network for Parasitology. Wendy is based at the University of Technology, Sydney (UTS) with Nick and Lisa and can be contacted by Telephone: 61-2-9514 4006, Fax: 61-2-9514 4201 or by email: wendy.relf@uts.edu.au

## ARC & NHMRC GRANT ANNOUNCEMENTS

ARC/NHMRC Research Network for Parasitology participants have once again enjoyed considerable success in the latest ARC and NHMRC grant rounds, securing over \$3.4 million in grants, fellowships and major equipment from the ARC and more that \$29 million in grants, programmes and fellowships from the NHMRC.

Congratulations to all the successful applicants and, of course, commiserations to those less fortunate this time round.

## ARC AUSTRALIAN RESEARCH FELLOWSHIP

**Alex Maier**, WEHI

## ARC DISCOVERY PROJECTS

**Alex Maier**, WEHI

Functional Genomic Analysis of Exported DNAJ Molecules in the Malaria Parasite *Plasmodium falciparum*  
**Mike Bull**, Flinders University of SA. Lizard social networks and the spread of parasites

**Michael Duffy and Graham Brown**, The University of Melbourne

Transcriptional control of antigenic variation in the malaria parasite *Plasmodium falciparum*

**Dr V Likic and Malcolm McConville**, The University of Melbourne  
Characterization of metabolic networks in a microbial pathogen

**Stuart Ralph**, The University of Melbourne

Chromatin barriers in *Plasmodium falciparum* gene regulation

**Andrew Thompson; Paul Monis;**

**Dr PL Clode; Ryan O'Handley;**

**Merle Olson**, Murdoch University

Interaction of *Cryptosporidium* life-cycle stages with aquatic biofilm communities

## ARC LINKAGE

### INTERNATIONAL PROJECTS

**Min Hu, Robin Gasser, Prof PW Sternberg**, The University of Melbourne. Using integrated frontier and smart technologies to identify new drug targets for parasites causing major diseases in humans and animals

**Aaron Jex, Robin Gasser, Dr DT Littlewood**, The University of Melbourne. MitoGenomics of key pathogens - an international cooperative

## ARC LIEF GRANT

Prof IW Dawes; Em/Prof PL Bergquist; Prof RJ Trent; Prof RJ Scott; Prof PJ Hogg; Prof MR Wilkins; Prof JK Reichardt; **Nick Hunt**; Prof MS Baker; Prof PR Dunkley (The University of Sydney)

Advanced high throughput functional genomics and gene mapping

### ARC LINKAGE PROJECT

Dr AM Walmsley; Prof BC Finnin; Prof JD Hamill; **Els Meussen**; A/Prof GD Sanson; Dr SR Webb, (Monash University)

Plant Cells for Improved Oral Delivery of Vaccines

## NHMRC

### PROGRAMME GRANTS

**Brian Kay, Scott O'Neill**, QIMR and The University of QLD

Development of innovative approaches to manage insect transmitted diseases

**David Kemp, Michael Good, Don McManus, Istvan Toth, Nick Anstey, Kabada Sriprakash, Denise Doolan, Chris Engwerda, Alex Loukas**, QIMR. Immunity and pathogenesis in tropical and infectious diseases: implications for vaccines and drug development

### NHMRC FELLOWSHIPS

**Magda Plebanski**, Monash University

**Brendan Crabb**, WEHI

**Terry Speed**, WEHI

**Nick Anstey**, Menzies School of Health Research

**James McCarthy**, QIMR

### NHMRC PROJECT GRANTS

**Rowena Martin**, Australian National University. Characterisation of the chloroquine resistance transporter of the malaria parasite

**Nick Hunt, Helen Ball, Georges Grau**, The University of Sydney  
Dysregulation of cytokine networks: a key determinant of the pathogenesis of cerebral malaria

**John Dalton, Sheila Donnelly**, Institute for the Biotechnology of Infectious Diseases, UTS. Regulation of immune mechanisms by pathogen cysteine proteases

**Heinrich Korner**, James Cook University. Modulation of leishmaniasis by the proinflammatory cytokine, TNF

**James McCarthy, Shelley Walton, Cielo Pasay, Deb Holt**, QIMR and Menzies School of Health Research  
Diagnostics for drug resistance in scabies

**Jacqui Upcroft, Peter Upcroft**, QIMR. The mechanism of action of new 5-nitroimidazole drugs which are effective against metronidazole-resistant *Giardia*

**Mal Jones, Wenbao Zhang**, QIMR  
Molecular cascades determining asexual/sexual development in *Echinococcus granulosus*



**Mick Foley, Andrew Coley**, La-Trobe University Structural basis for inhibition of malaria invasion by targeting the apical membrane antigen of *Plasmodium falciparum*

**John Reeder, Alyssa Barry**, Macfarlane Burnet Institute

Population genomics of *Plasmodium falciparum* surface antigen genes

**Stephen Rogerson, Jocelyn Glazier**, The University of Melbourne

Placental malaria, placental function, nutrient transport and foetal growth restriction

**Louis Schofield, Campbell Witt, Frank Christiansen, Ivo Mueller**, WEHI. Role of NK receptors is susceptibility and resistance to human malaria

**Alan Cowman, James Beeson**, WEHI. Trafficking and expression of PfEMP1 on the surface of *P. falciparum*-infected erythrocytes

**Jake Baum, Chris Tonkin**, WEHI Regulation of actin polymerisation during malaria parasite invasion of the human erythrocyte

**Paul Gibson, Tania de Konig-Ward, Justin Boddey**, WEHI Identification of *Plasmodium falciparum* translocon that exports parasite proteins into their erythrocytic hosts

**Thomas Nebl, Tony Hodder**, WEHI A comprehensive immunoproteomic analysis of the repertoire and dynamics of human antibody responses to malaria

**James Beeson**, WEHI Antibodies against erythrocyte invasion ligand of *Plasmodium falciparum* and protection from malaria

**Tim Davies, Harin Karunajeewa, Ivo Mueller, John Vince** University of WA University of WA. Severe malaria in children in Papua New Guinea: a longitudinal study of pathophysiology, management and outcome

#### EVENTS

"Parasites in Focus", the exhibition of parasitological photographs and images that was launched at the National Science Centre in Canberra during the 2007 annual conference, is on its way to Brisbane - it will be on display at the Queensland Museum from late November until February.

Have you been involved in public events promoting parasitology or want to feature your parasitology event on the Network website? Contact Lisa Jones (email Lisa.Jones@uts.edu.au or telephone Wendy on 02-95144006)

#### NETWORK RESEARCHER EXCHANGE, TRAINING and TRAVEL AWARDS

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

**Philip Crosbie**, PhD, Aquafin CRC Postdoctoral Research Fellow, University of Tasmania, who won a Network Travel Award for a Research Exchange to Laboratory at the Institute of Parasitology, Academy of Sciences Ceské Budejovice in the Czech Republic

**Min Hu**, Postdoctoral Researcher, Gasser Laboratory, The University of Melbourne, who won a Network Travel Award for a Research Exchange to Paul Sternberg, The California Institute of Technology, U.S.A.

**Michelle Gatton, Kathy Andres and Alberto Pinzon-Charry** from the Malaria Drug Resistance & Chemotherapy Laboratory, QIMR who won a Network Travel Award to run a 1 day symposium / workshop focused on promoting the malaria research being undertaken in Northern Australia in Brisbane

**Professor Andrew Thompson**, Head of Parasitology Section and Head WHO Collaborating Centre for the Molecular Epidemiology of Parasitic Infections, Murdoch University, who won a Network Travel Award for a Researcher Exchange to bring **Dr Tim Paget** from Medway School of Pharmacy, University of Kent, UK

**Lesley Warner** who won a Network Travel Award for a Researcher Exchange to visit The Bernice Bishop Museum Honolulu Hawaii to study an "internationally important Helminthological Collection and strengthen links between

Australian scientists" for 2.5 weeks during the first 6 months of 2008

**Leann Tilley** who won a Network Travel Award for a Researcher Exchange to visit X-ray and optical microscope facilities in California

**Barbara Nowak** who won a Network Travel Award for a Researcher Exchange to visit Pacific Biological Station, DFO Canada and salmon farms on the Pacific Coast of Canada and the USA

**Kate Hutson** who won a Network Travel Award for a Researcher Exchange to visit Dr Francisco Montero, Dr Astrid Holzer and Ms Aigües Repulles at the University of Valencia, Spain and London to spend three weeks working at The Natural History Museum

**Danielle Smyth** who won a Network Travel Award for a Researcher Exchange to visit laboratories of Professor Jeff Bethony at Centro de Pesquisas René Rachou, FIOCRUZ and Drs. Marcos Horacio/Elida Rabelo's laboratory at the Federal University of Minas Gerais in the city of Belo Horizonte, Brazil, to develop techniques in RNA interference (RNAi) with particular reference to feeding in parasitic nematodes from November 4th until December 20th 2007

**Ceilo Pasay** who won a Network Travel Award for a Researcher Exchange to visit Wright State University, Ohio USA to study resistance in scabies mites

The Network Management and Advisory Committee recently approved an increase in funding for the Network Researcher Exchange, Training and Travel Awards. Applications will be assessed by the Network Management Committee and applicants will be advised of the outcome where possible within four weeks of each closing date. Remaining 2007/08/09 dates for submission of Network Travel Award applications:

\* Friday 25 January 2008

\* Friday 28 March 2008

\* Friday 30 May 2008

\* Friday 25 July 2008

\* Friday 26 September 2008

\* Friday 28 November 2008





# STATE NEWS

## AUSTRALIAN CAPITOL TERRITORY

It has been a busy few months for the four parasitology Honours students in the School of Biochemistry and Molecular Biology (BaMBi), who have recently submitted their theses. Congratulations to all of them - Natalie Spillman and Jonathan Konrad (both in Kieran Kirk's lab), Nimeka Ramayake (Kevin Saliba's lab) and Amrita Biswas (Carolyn Behm's lab) – for handing in very impressive theses. All of them have been sighted around BaMBi since their submission date as they follow up on some interesting findings.

Rong-Wei Teng, the Kirk lab's postdoc fellow working on malaria metabolomics, has returned to BaMBi after attending the 3<sup>rd</sup> metabolomics scientific conference, as well as two metabolomics workshops, in Manchester, UK. Rong-Wei was awarded an ANU Travel Grant to support his attendance, and presented his work on 'Metabolic profiling of the intraerythrocytic malaria parasite *Plasmodium falciparum* by NMR spectroscopy'.

In grant news, Kieran Kirk has been awarded \$10K in 2008 and \$15K in 2009 from the GO8/DAAD – Australia Germany Joint Research Co-operation Scheme. The funds are to facilitate travel of group members to Marburg in Germany, to carry out collaborative work with Prof. Klaus Lingelbach and colleagues on the 'New Permeability Pathways' induced by the malaria parasite in the infected red blood cell membrane.

## NEW SOUTH WALES

### Institute for the Biotechnology of Infectious Diseases

Another year draws to a close and another lot of Honors students finish. Well done to Alana Zakrzewski, Rowan Ikin, David Alquezar, Sarah

Fordyce and Joel Barrett. Hopefully we will be seeing Alana and Rowan again next year as PhD students. In the meantime they are working with Nick Smith, Kate Miller and Marilyn Katrib as research assistants. Sarah has already taken up a position in a Masters course in Forensic Anthropology at Oxford and we wish her well in her future studies. Congratulations also to Alana who won Best Poster (Day 1) at the recent UTS/RNSH/USyd conference. We would also like to welcome Wendy Relf who has started working for the ARC/NH&MRC Research Network for Parasitology. Wendy will be with us until the end of the Network in 2009 and initially will be the contact for the Network while Lisa Jones is on maternity leave following the birth of her second daughter, Beatrice. Welcome back also to Iveta Slapetova who has just returned from maternity leave following the birth of her second son in March.

Sadly we have farewelled Nigel Beebe who is leaving us to move on to greener pastures. Nigel has been at UTS for nearly 12 years and has been a great contributor to both teaching and research here at UTS. He will be sorely missed but we wish him well in his future career.

### Macquarie University

Congratulations to Michelle Power who was recently awarded a Macquarie University Research Fellowship (MURF) to work on *Eimeria* in marsupials. Michelle beat off stiff competition to win the MURF – the success rate was only 6% so well done!

The parasitology group at Macquarie is expanding. In early January Cristel Cheung and Liette Waldon will start working with Michelle and Belinda Ferrari on the human Cryptosporidiosis Linkage project. Congratulations to Liette who achieved First Class for her Honours project on Cryptosporidiosis in Sydney. Liette was awarded a Macquarie University Research

Scholarship to continue her work into PhD studies. The group will be joined by Samantha Emery (parasitology genes run in the family) in January. As part of Samantha's undergraduate science program she will be doing an internship with Michelle on *Eimeria*..

Nichola Hill and Inger Vilcins are writing around the clock. They both hope to submit their theses before March. Things are moving within the EBCRC. Anitha Alagappan has submitted her manuscript on probes for *Cryptosporidium* detection and Quach Truong has started writing up for submission mid 2008.

### University of Sydney News

On the Uni teaching front, the famed parasitology textbook seems delayed again, but the team has completed another round of lectures and cases in animal disease. Jan has completed his first year induction! Once again, the highlight was the indomitable performance from David Jenkins on hydroids and we were delighted to have David present for the case wrap-up and performances.

The main movement has been the shift of Sally Pope to the e-learning section of the Faculty and we shuddered to interview for her replacement. But we welcomed Denise McDowell, who is an excellent addition to the team with a wonderful blend of experience and personality. And Sally will be around for 'back-up' over the next year.

In research, the parasitology team at Camden (Herman Raadsma, Ken Beh and Anne Lenhart) and Sydney (Tony Rowe) have continued genomic and genetic research into markers and measures for gastrointestinal nematode resistance through 2 AWI-MLA funded projects within SheepGenomics. The work at Sydney Uni interfaces closely with complementary research with other ASP members at CSIRO Livestock Industries (Ross Windon, Peter Hunt), UNE (Julius and Karen), and Monash (David Piedrafita). Sheep CRC funding was re-newed in Dec 06, so the SheepGenomics interfaces closely with the CRC's 'Information





nucleus” flocks (Dougie Gray). Two BSc(Vet) students, Nathan Quigley and Kwan Yun, have completed their Honours projects on *Haemonchus*. We have been joined by students working with Jan Slapeta, Ms Shirley Fan (Leucocytozoan) and Jess King (Neospora). Abdullah also managed to take advantage of the equine flu outbreak and the delayed worming of the Camden horses to prepare some strongyle eggs for his work at Wagga!

## Northern Territory

The Troppo season is upon us! While the boss had the right idea and escaped the Darwin heat and humidity for a few weeks, the rest of us continued to beaver away in the air-conditioned sanctuary of the skin pathogens lab! In early October the lab spent a relaxing team-building day on a Mary River houseboat on the edge of Kakadu. Despite multiple fishing rods in action and several lost lures, little more than plant matter was caught. Nonetheless a great day was had by all.

In October the Menzies labs celebrated the graduation of two students. Peter Christensen was awarded first class honours for his work on PCR methods for *Plasmodium* speciation; and Kate Mounsey was presented with her PhD. Annette Dougall’s PhD continues at a feverish pace. Annette recently returned from the Australian Biosecurity CRC conference in Melbourne, and is now preparing for a visit from her associate supervisor Bruce Alexander, whilst bracing for more field work in the steamy Top End.

Congratulations to Shelley Walton and Deb Holt for project grant success! The NHMRC funding will enable us to continue our work on drug resistance in scabies mites; in collaboration with James McCarthy and Cielo Pasay at QIMR. In other lab news, we are very pleased to welcome back Linda Viberg. Linda has returned to work on the drug resistance “fill-in-the-gaps” project, and is already making great progress. On a sad note, we said farewell to Susan

Pizzutto, who leaves the lab after six years of dedicated service. Fortunately for us, Sue is still at Menzies to answer our annoying “where is it?” type of questions!

As we all start gearing-up for the festive season, we would like to wish all members and their families a relaxing Christmas and productive new year!

## School of Veterinary Science, University of Queensland

Glen Coleman, Lyn Knott, Steven Kopp and Jim Rothwell recently attended the Australian Society for Pathologist’s meeting in Melbourne which had a parasitology flavour this year, and where they bumped into a few ASP colleagues. Leá Indjein has completed writing her honours thesis under the supervision of Glen and Constantin Constantinoiu on immunodiagnostic techniques for the detection of *Echinococcus* infections in macropods. Con has finished his UQ Post Doc Fellowship but the Beef CRC has been lucky to secure his services for another post-doc position where he will be working with Nick Jonsson and Louise Jackson (ARI) on host responses to cattle tick – but first a Christmas vacation back in Romania! Steven Kopp is on the home stretch of his PhD project, and is aiming to submit early in the New Year so he can devote himself to his new position in the School as a clinical pathologist. Kim Jell’s PhD meanwhile has been disrupted by the Equine Influenza outbreak so she has had time to focus on assay work with Andrew Kotze (CSIRO Livestock Industries) and MHC analyses with Jenny Seddon. Tamsin Barnes is now batting for the epidemiologists having just secured a postdoctoral fellowship working on the epidemiology of respiratory diseases of feedlot cattle, a project funded by MLA. She has promised once she has learnt all the latest epidemiology skills, she will return to the lab and put these skills to practice in interesting research (i.e. parasitology).

Emily Piper, supervised by Nick Jonsson, has just completed a ten month-long cattle trial examining the immune phenotype of cattle as they develop and stabilise resistance to *Rhipicephalus microplus* (cattle tick) infestation. Funded by the BeefCRC, this work aims to identify predictive immune/phenotypic markers for tick resistance, and also feeds into the BeefCRC/DSD funded project led by Dr Ala Lew and Dr Louise Jackson (QLD DPI & F) which is developing a new tick vaccine. Now that the field work is over, it is into the lab for gene expression analysis of the hundreds of samples we have been storing away!

Rebecca Traub, together with Paul Vanderlinde, AQIS, Christian Gray and Louise Jackson, QDPI & F were successful at securing funding from the Australian Biosecurity CRC for a postgraduate project to carry out a survey and risk assessment of non-encapsulated forms of *Trichinella* on mainland Australia. Leigh Cuttell has been successful at attaining the AB-CRC PhD scholarship for this project and will be moving back home to Oz from New York, where she currently works as a senior research assistant at the Memorial Sloan-Kettering Cancer Centre. Rebecca is also celebrating her recent success of attaining a UQ Early Career Researcher Grant to investigate the enigma of recurrent blastocystosis in symptomatic patients in Queensland. Rebecca’s collaborators are Dr Robyn Nagel, Gastroenterologist, St. Vincent’s Hospital in Toowoomba and Dr Rune Stensvold, Statens Serum Institut, Denmark. Rebecca is also assisting Dr Baden Pearce, AQIS to conduct a national survey of *Cysticercus bovis* (*Taenia saginata*) in Australia by confirming suspect lesions using histopathology and PCR. Rebecca, with invaluable assistance from Julie Macaranas, is also busy trying to wrap up the ARC-Linkage project (Bayer HC Animal Health) on canine parasitic zoonoses in Thailand with collaborators from Murdoch and Dr Mathirut Mungthin at the Phromangkutkloa College of Medicine, Bangkok. The final part of the project involves



# STATE NEWS

investigating the dog's role as reservoirs of liver and intestinal flukes in rural communities in Thailand. Rebecca is looking forward to visiting Andy, Peter and gang at Murdoch again in early Jan to share her exciting results!

## Department of Primary Industries and Fisheries

The Beef CRC/Department of State Development tick vaccine project is progressing along. Dr Manuel Rodriguez Valle from Cuba recently joined the team as a molecular parasitologist. Welcome Manuel ! (Hopefully soon to join ASP!) Bing Zhang who recently replaced John Molloy has been helping the project with his gene knockdown experience - knocking down host and tick genes with Megan Jones, Catherine Minchin and Anthea Bruyeres. Anthea, Megan, Sandy Jarret and Con Constantinou went to a proteomic workshop (DIGE) and have isolated spots relevant for tick susceptible and tick resistant cattle. Fun had by all. Emily Piper (UQ-PhD student) is finalising the large tick challenge trial -finally coming to an end (with Louise Jackson, Nick Jonsson UQ). Ala Lew is busy keeping all of this 'ticking' over with help from Louise, Murdoch bio-informatics, Felix Guerrero (USDA - soon to visit) and UQ's Nick Jonsson. Bartosz Wlodek is still counting Babesia bigemina chromosomes and having fun with cooling units of pulsed field gel electrophoresis equipment (Not). Jess Morgan has commenced working with Nick in the development of acaricide resistance tests. Louise is also busy investigating a new acaricide resistance problem emerging in the field. Wayne Jorgensen attended WAVLD conference in Melbourne and caught up with Phil Toye (ILRI, Kenya) and Terry McElwain (WSU). It seems the Americans are going to replace their Plum Island containment facilities with a new more modern facility.

## Queensland Institute of Medical Research

A large group from QIMR recently attended the ASTMH conference in Philadelphia, including Michelle Gatton (who was awarded at CASS travel grant to attend the meeting), Geoff Gobert (who was an invited speaker), Tina -Skinner Adams, Kathy Andrews, James McCarthy, Mal Jones, Alex Loukas, Mark Pearson, et al. Mark, Geoff, Alex and Mal also took the opportunity to visit their collaborators at George Washington University and to do a spot of fishing on Chesapeake Bay. Don Gardiner and Katharine Trenholme with Chris Brown (GU) were successful in securing funding from the Griffith Medical Research Centre collaborative grants scheme for a project looking at novel trafficking pathways in *P. falciparum*. Congratulations to Michelle Gatton, Kathy Andres and Alberto Pinzon-Charry who won an ARC/NHMRC Research Network for Parasitology Network Travel Award to run a 1 day symposium focused on promoting the malaria research being undertaken in Northern Australia. Congratulations also Magda Ellis who was awarded her PhD and who is continuing her work on Schisto in the Molecular Parasitology Lab where she taken up a Post doc position.

The immediate outcome of the meeting was to establish various working groups which will determine the best way to proceed with each of the 4 parasite groups listed above.

## CSIRO Livestock Industries

Andrew Kotze (CSIRO) and James McCarthy (QIMR) travelled to the USA in late October to attend the Joint WHO-World Bank meeting on "Monitoring of drug efficacy in large scale treatment programmes for human helminthiasis", Washington DC, 31 October-2 November 2007.

The purpose of the meeting was to address the issue of anthelmintic drug resistance monitoring for the so called 'neglected tropical diseases' - lymphatic filariasis, onchocerciasis, schistosomiasis, and soil-transmitted helminths. The need for this monitoring has arisen as the cornerstone of the current WHO strategy to control these diseases involves the coordinated use of drugs to regularly and pre-emptively treat humans, and hence, given the veterinary experience of wide spread drug resistance, there is a need to ensure that the development of resistance in human parasites is slowed as much as possible. Managing such resistance will depend on our ability to detect its emergence at an early stage. The meeting was useful in establishing a dialogue between veterinary and human experts, and in initiating a process which will allow veterinary expertise to assist the management of drug use in humans. Various experts spoke on the currently available phenotypic and genotypic assays, the problems associated with their use, and the short and long term needs for research to apply these tests effectively. We also learnt from speakers on the current application of drug resistance testing methods for malaria, HIV and tuberculosis in developing countries.

## SOUTH AUSTRALIA

### South Australian Museum/The University of Adelaide

Ian Whittington, Leslie Chisholm, Vanessa Glennon, Lizzie Perkins, Kate Hutson and Marty Deveney (newly appointed as Subprogram Leader in Marine Biosecurity at SARDI Aquatic Sciences) recently returned from the 7th International Symposium on Fish Parasitology (ISFP7) in Viterbo, Italy where they enjoyed a lot of talk about fish parasites and consumed more authentic Italian pizza and gelato than they could handle. Lizzie's excellent talk on the mitochondrial genomes of





*Benedenia seriolae* and *Neobenedenia* won her one of the best student oral presentation prizes. Congratulations Lizzie!

Kate stayed in Europe after the conference to work in Spain and England, aided by a Researcher Exchange grant from the ASP/NH&MRC Research Network for Parasitology. Congratulations Kate! At the University of Valencia she worked with Paco Montero, Astrid Holzer and Aigues Repulles doing molecular malarkey on blood flukes of fishes and moulding model parasite spines out of plasticine. In London she worked at the Natural History Museum with Geoff Boxshall and Rod Bray identifying parasitic copepods and digeneans respectively from Southern Australian fishes. She had a very productive visit and is thrilled with her new findings and progress on the new project co-funded by ABRIS and FRDC.

Ian also stayed on in Europe after ISFP7 to continue his ongoing collaborations with Dr Graham Kearn at the University of East Anglia in Norwich, UK. Ian and Graham began some new projects on monogeneans that will continue at a distance. Ian also revisited some of his favourite pubs to remind him of his PhD days. One thing struck home: a pint of beer now costs >£3 but as a student, Ian recalls pints for approx. 25 pence!

In October-November, Ian's lab hosted a flying 4-week visit by Italian undergraduate student, Diana Minardi, from the Aquaculture & Ichthyoparasitology Laboratory at the University of Bologna. Diana won a scholarship to fund her visit to identify Monogenea of elasmobranchs and teleosts infecting captive fish in a public aquarium at Cesenatico on the Adriatic coast. In the week before ISFP7, Ian had

visited Diana and her supervisors, Prof. Maria Letizia Fioravanti and Giuseppe Paladini, for a tour of 2 marine aquaria, in Cesenatico and Rimini, to view the parasite problems. The visit was capped by an amazing seafood dinner including seppia which was a cuttlefish broth with pasta!

With the year coming to a close and Annual Reviews over for PhD students Vanessa, Lizzie, Rissa Williams, Allan Mooney and David Schmarr, all have their sights set on a productive end to the year! And submission of theses at various points throughout 2008 ...!?

Mike Bull, James Harris and Ian Menz (Flinders University) meet monthly with Kate, Ian and Lesley Warner (SA Museum) and are working hard to plan the 2008 annual parasitology conference (see advert elsewhere in this issue).





# STATE NEWS

## South Australian Research and Development Institute – SARDI Aquatic Sciences

Marty Deveney took up the position Subprogram Leader, Marine Biosecurity at SARDI Aquatic Sciences in July. He recently attended the European Association of Fish Pathologists Conference in Grado and the international symposium on Fish parasites in Viterbo. This duo of Italian conferences included a lot of valuable information on fish parasites and the diseases they cause and has led to several potential avenues of collaboration. Work in Marty's lab is currently examining pest and disease issues in marine ecosystems.

Craig Hayward has been working in Port Lincoln as an appointee under the Marine Innovation SA (MISA) initiative. He continues to study a range of parasites of aquatic animals and is developing several projects on parasites for the new Australian Seafood CRC.

### PIRSA Aquaculture

Hamish Aiken takes up a full-time position at PIRSA Aquaculture in November, having worked there part time for several months. He is completing his PhD on *Cardicola forsteri*, the blood fluke of Southern bluefin tuna. PIRSA Aquaculture has significant interests in parasite control in aquaculture and no doubt Hamish's expertise will expand as he settles in to the new position.

### Flinders University

At Flinders University in South Australia, Rachael Dudaniec and Jaro Guzinski continue to battle in the last months of their PhD's at the Evolutionary Biology Unit. Rachael (supervised by Dr. Sonia Kleindorfer) is discovering interesting inter-habitat and inter-island patterns of genetic structure in *Philornis downsi* – the parasitic fly of Darwin's

finches on the Galápagos Islands. She has also revealed hitherto unknown aspects of the fly's reproductive and dispersal behaviour between hosts using microsatellite analysis. Jaro (supervised by Prof. Mike Bull) is reaching the end of his PhD on the population genetics of an Australian reptile tick species *Bothriocroton hydrosauri*. One of his main findings is the discovery of 4 distinct tick subpopulations at the sampling site (Mt Mary, South Australia), with low levels of gene flow between them. Moreover, at the within populations, larval ticks are more related to each other than are nymphs or than are adults, which provides new insights into the mode of transmission of this ectoparasite.

## VICTORIA

I would like to encourage all Victorian groups to contribute to future editions of this newsletter. If you would like to be added to list for news item requests, please contact [Jody.Zawadzki@dpi.vic.gov.au](mailto:Jody.Zawadzki@dpi.vic.gov.au).

### Division of Infection and Immunity. WEHI

Please see the image below taken out the front of a Vet Surgery on Rathdowne Street in North Carlton. We no longer need to worry about parasites. As you can see they have gotten it all licked! Somehow I don't think this is reality.



## **Parasite Control Laboratory La Trobe University**

After a long absence we are back. Though we never actually went away but this is certainly the first news of us for a while. There have been quite a few changes in the Dept of Agricultural Sciences since I last wrote with many losses and a few gains. The most notable was Peyman Mehrpouian moving out to a position in trouble shooting termite control around Melbourne. Needless to say more money etc than involved in research though I notice he is still frequenting the lab in his spare time, trying to make that big breakthrough! You can take the man out of research but..... . In contrast Steve Cotton has also left after he submitted his thesis, to a job with Pfizer. He has not been back but as he seems to be covering large parts of the country every week his lack of time for visits is understandable. On the plus side Halley Schwarz has started a PhD in the lab looking at iron binding molecules in mites and in their hosts. She is busy obtaining sera from a range of many hosts around the country and if you have any such positive sera she would be pleased to hear from you. Jacque Burgess is next to submit and with her topic concentrating on poo smells I don't expect to have too much trouble finding examiners. She is still uncertain of her next move though a postdoc would be my firm advice. Kate Richards is still chasing blowfly molecules though with Matt McDonagh now involved from the DPI Attwood, we are getting some real molecular analysis. Meanwhile Emma Cash is still filming *Burramys* at the Healesville Zoo and at Mt Hotham because someone has to do it. Emma's project does not concern parasites though Annelise Blanck did show some good ones on this little possum during her honours project and I would like to explore the relationships and effects of these if anyone is interested.

Finally Will Ritchie joins us next year, scholarship pending, to work in collaboration with Dadna Hartmann et al at DPI Attwood on diagnostic targets for a nematode species or two. The projects with DPI signal the much closer relationship between La Trobe and DPI that will be cemented in the new Biosciences Research Centre to be built at La Trobe. This will co-locate the DPI and La Trobe scientists concerned with animal and plant genetics and genomics and health at La Trobe and should provide one of the most active animal parasite groups in Australia (not forgetting the malaria group as well). The recent addition of Warwick Grant to the ranks at La Trobe adds significantly to this mix and augers well for active and interesting research collaborations. My time has been taken up with the usual administrative tasks to which has been added some responsibility for the planning of La Trobe's involvement in the BRC. So all in all an interesting time and hopefully we can attract some new people to our growing parasite community (community of parasites?) at La Trobe.

## **Department of Genetics Latrobe University**

Warwick Grant relocated earlier this year from AgResearch in New Zealand to Latrobe University. We would like to welcome Warwick and hope to hear news from this group in future newsletters.

## **Animal Biotechnology Research Laboratory Monash University**

As we head into the final month of the year, ABRL is a hive of activity. We have completed our first vaccine trial with Pfizer, the results of which look very promising. A big thank you to Jayne, Troy and Jason who did the bulk of the work, counting eggs in faeces, adult worms in stomach washes and collating the data. Troy (our new RA) is still with us, so we haven't

frightened him off with all those faecal egg counts! An Australian Wool Innovation (AWI) trial has also recently been completed and Joanna and Cecilia are in the midst of counting larvae and cells. Panat (our overseas visitor) is busy learning the art of cloning and expressing proteins and Michael de Veer, with the help of Troy, is working on antigen discovery for vaccines against *Haemonchus contortus*.

The end of the year would not be complete without some social events. ABRL had a wonderful reunion with the people at the Centre for Animal Biotechnology, The University of Melbourne. Deanne organised a wine tour of the Yarra Valley and we spent a very relaxing day being chauffeured around a number of wineries, catching up and sipping some lovely wine. This Friday, ABRL will have its Christmas party at the local 'Pitch and Putt' which should be a lot of fun. Now that Nick Robinson is no longer with us, the field is more even, so the game is anyone's for the taking. We'll definitely be taking some photos so stay tuned to the next newsletter for an update. Until then, we wish everyone a very merry and safe Christmas, and a very successful New Year.

## **Department of Immunology Monash University**

Magdalena Plebanski moved earlier this year from the Austin Research Centre to Monash University to take up a position as Professor. We wish Magdalena well and hope to hear news from this group in future newsletters.

## **Department of Primary Industries Victoria, Attwood Centre**

Having endured a long and often agonising wait, we are happy to say that the Identification and validation of new drug targets for control of gastrointestinal nematode parasites of sheep project in collaboration with Carol Behm (ANU) and



# STATE NEWS

Andrew Kotze (CSIRO) has officially commenced! The team at DPI-Attwood have begun the exciting task of validating the RNAi methods developed for *H. contortus*, and their application as a validation tool for potential control targets. As we mentioned in an earlier communication, the three-year project is expected to support undergraduate and post-graduate students – so if you are interested in pursuing postgraduate studies in this area please contact Jody Zawadzki or Dadna Hartman. Whilst we waited for the ink to dry on the contracts, the team was busy improving protocols and working on some much awaited publications. We also had Joanne Hughes undertake her Honours project with us in this area (co-supervised by Mark Sandeman, La Trobe University), where she did some very nice work - we are very fortunate to have Joanne join the team as a scientist working on the new project, welcome back Jo!

We are also happy to report that in collaboration with Mark Sandeman, we are broadening our horizons to work on the nuisance Australian blowfly – *Lucilia cuprina*. Whilst our collaborations are in the early stages – a small pilot project currently funded by DPI, we hope that this will lead to a larger project bringing together DPI, LTU and Phil Batterham's team (Uni of Melb).

Such collaborations will place the groups in good stead as we await the new Biosciences Research Centre to be built at La Trobe. We are very excited at the prospect of working closer with our colleagues at LTU and forging stronger collaborations. To this end we have begun talks with present and past collaborators, and welcome Warwick Grant to the ranks at La Trobe. We look forward to being part of a strong animal parasitology group in Australia.

Jody Zawadzki was fortunate to spend some time with Novartis Animal Health in Switzerland following the recent WAAVP conference in Belgium and was able to gain an appreciation of the Development phase of drug discovery.

That is it for now, kind regards to all our colleagues from all of us in the Molecular Biology team, DPI Attwood, and we hope every one had a happy Christmas and wish all a safe New Year!

For any queries contact Dadna Hartman, Molecular Biology, DPI-Attwood, (03) 9217 4286, Dadna.Hartman@dpi.vic.gov.au

## WESTERN AUSTRALIA

### Department of Agriculture and Food

The end of 2007 sees us flat out commencing research under the new Sheep Cooperative Research Centre, and finalising projects carried over from the old CRC. Parasitology fits into a Sub-Program with Brown Besier as leader, but still has a number of sizeable projects on topics such as investigating "targeted treatment" strategies, decision support systems for parasite management (WormBoss and hopefully a new "FlyBoss"), and the genetics of parasite-related traits in a large multi-site sheep genetic investigation. In addition, we are still working on the *Haemonchus* dipstick test to provide early warning of haemonchosis, and have recently completed a detailed review of a number of parasite detection projects under the old CRC.

Brown reported on the targeted treatment and dipstick research at the WAAVP conference in Belgium in August (finding the time despite compulsory beer-drinking classes) and dropped in to the Moredun Research Institute in Edinburgh for a couple of days

while on holiday in Europe in October. Rob Woodgate has been busy keeping WormBoss running, while he prepares for further research into the role of inhibited *Teladorsagia* in sheep over summer – a fascinating issue that has recently emerged. His main obstacle has been the outbreak of Equine Influenza – for light relief he has maintained a role in the national Rapid Response Team for exotic diseases, and found himself drafted for a couple of stints in NSW. Both Brown and Rob plan to attend the "Novel approaches to the control of helminths of livestock" in Malaysia in February 2008, where all the usual suspects in sheep worm control and anthelmintic resistance management will be trawled over in depth.

### Murdoch University

After over 20 years with Parasitology at Murdoch Russ Hobbs has decided to retire so that he can spend more time travelling with Sue, kayaking, hiking and many other non-Murdoch activities! However, Russ will continue his love of wildlife parasitology and taxonomy through his appointment as an Honorary Research Fellow in the Vet School. Russ has been 'popping in' frequently since his retirement function but declined the offer of helping with exam marking. Cath Covacin has joined the group as our new Technologist and is enthusing us all about Wolbachia and prospects for some new research projects. Cath's first challenge is coming to grips with Murdoch's finance system - not an easy task as Andy recently discovered that few in the Finance section actually understand how their system works!

Amanda Ash has been in Africa since early October following packs of painted dogs in Zambia and clearly having a most fulfilling time. Her emails rave about 'smelly, sloppy faeces' and lots of motile white proglottids'. However, Amanda is lucky to still have her







samples as, in her words " a baboon took off with my sample kit and was heading for the nearest big tree with me chasing and yelling. He dropped it thankfully when it split open and I was hot on his tail!! Samples were salvaged and safely stowed away. They take anything the little buggers!!" photos will be provided for the next issue!

Jamie Conlan was at Murdoch during October planning his project in Laos on *Trichinella*, *Taenia* and pigs, and has since returned to Vietianne to initiate survey work. The project team will re-convene in Vietianne in April next year to help Jamie with field work,

Lydden Polley from the University of Saskatoon will visit Murdoch again in February and March next year to continue collaborations in both research and teaching. Andre Buret from the University of Calgary will spend his sabbatical with the Murdoch group next year, from June for 6 months, and Tim Paget is planning another visit while Andre is here. Although their visits are associated with ongoing research on the *Giardia* proteome, anyone who knows these two characters will agree that when together, hangovers are likely to be

Endemic. Andy, Paul Monis, Ryan O, Peta Clode at UWA and Merle Olson were successful with their ARC Discovery application which will combine biofilm research with studies on *Cryptosporidium* and some advanced microscopy techniques.

Simon Reid and Dobbo (Rob Dobson) continue to work hard developing their predictive models for the spread and impact of surra in Australia, which is funded by the Biosecurity CRC. Dobbo recently presented some of the outputs of this work at the last WAAVP in Belgium where he was able to replenish Simon's supply of decent chocolate. Rob and Simon recently ran a workshop in Davao, Philippines to round off Simon's completed ACIAR project there. The workshop focused on the transfer of knowledge about the impact of surra in Mindanao and the use of Dobbo's model for predicting the outcomes of any control program. The event was highly successful and it is likely to translate into an extension of the control program for surra in Mindanao. We were ably assisted by our local dynamo Alan Dargantes from Central Mindanao.

University who is completing a PhD at Murdoch on the epidemiology of surra in Mindanao. Alan has spent the past 6 months at home collecting several thousand samples and pieces of data for his thesis. This is no mean feat given that travel to his principal field sites takes about 10 hours of bone-jarring car travel! His work is likely to re-write some of the misconceptions that appear in textbooks so watch this space if you have a remote interest in surra. Linda McInnes has recently completed a couple of field trips to Indonesia (Bogor and Sumatra) and to the Australian Wildlife Hospital in QLD. She is now very close to naming 2 new species of trypanosomes that are relatively closely related despite their obviously different origins. She is now somewhat obsessed by Sumatran rhinos and is using inappropriate names (based on the host) in place of the standard boring numeric codes required in scientific endeavors when discussing her data. Jill Austen continues to expand our knowledge of trypanosomes in quokkas and we are now planning for a field trip to Rottneest island, which I (Simon) have told her would be best done in school holidays when the weather is hot.





## **Closing Dates for Nominations for ASP Awards**

ASP Fellowships - January (before next mid term Council meeting  
February 1st 2008)

Bancroft-Mackerras Award - September 30<sup>th</sup> 2008 (for award in  
2009).

Invited Lectureships Travel Grants - December 31<sup>st</sup> 2008.

JD Smyth Travel Awards - June 30th 2008 and December 31<sup>st</sup>  
2008.

JFA Sprent Prize – Next round to be announced in 2010

Further information and forms for awards are at the end of this  
Newsletter or visit the ASP website: [www.parasite.org.au](http://www.parasite.org.au)



## **ICOPA XII**

**"Understanding the global impact of parasites -  
from genomes to function and disease"**

**Melbourne, Australia in 2010**

**15th-20th August**

***MORE DETAILS COMING SOON***



# Scholarships

*Molecular Ecology of Cryptosporidium in Rural and Urban NSW PhD Scholarship*

**Closing Date: 18<sup>th</sup> January**

The incidence of cryptosporidiosis is rising in rural and urban NSW. Effective management and prevention of this disease requires knowledge, relevant to the Australian environment, of the contribution of *Cryptosporidium* species to human disease. A multi-disciplinary approach encompassing epidemiology, molecular biology and climatology will provide comprehensive knowledge of *Cryptosporidium* transmission cycles in humans in Australia. In partnership with NSW Health will identify the risk factors associated with on-going transmission of cryptosporidiosis in regional areas, enabling NSW Health to develop effective management strategies for disease prevention in rural Australia.

MQRES scholarships are available to Australian or international students. Applicants should have completed an Australian four-year undergraduate degree in a relevant discipline with first class honours, or demonstrate equivalent research qualifications from an Australian or overseas University. This project would suit a candidate with a strong interest in microbiology, human health and diagnostics. Candidates should have a background in one or more of the following areas: microbiology, parasitology, molecular biology or epidemiology. Availability to undertake fieldwork is essential. The scholarship pays a living allowance currently \$19,616 per annum, tax exempt (2007) and the tenure is 3.5 years full time, subject to satisfactory progress. Tuition fees will be funded for the scholarship tenure, with domestic students receiving Research Training Scheme (RTS) placement for their tuition, and International award holders having their fees sponsored.

Further information is available from supervisors: Dr Michelle Power, telephone +61 2 9850 6974, [mpower@els.mq.edu.au](mailto:mpower@els.mq.edu.au), and Dr Belinda Ferrari, telephone +61 2 9850 9252, [bfer-rari@cbms.mq.edu.au](mailto:bfer-rari@cbms.mq.edu.au).

Application forms and conditions for MQRES awards, are available from the Higher Degree Research Office, telephone +61-2-9850 7663, or e-mail: [hdrschol@vc.mq.edu.au](mailto:hdrschol@vc.mq.edu.au).

## Forward applications to:

The Scholarship Officer  
The Research Hub  
Level 3, C5C East  
Macquarie University NSW 2109  
AUSTRALIA

# WORKSHOPS

## INTRODUCTION TO THE MATHEMATICAL MODELS OF EPIDEMIOLOGY & CONTROL OF INFECTIOUS DISEASES

**A Short Course for Public Health Professionals**

**1-12 September 2008  
Imperial College London**

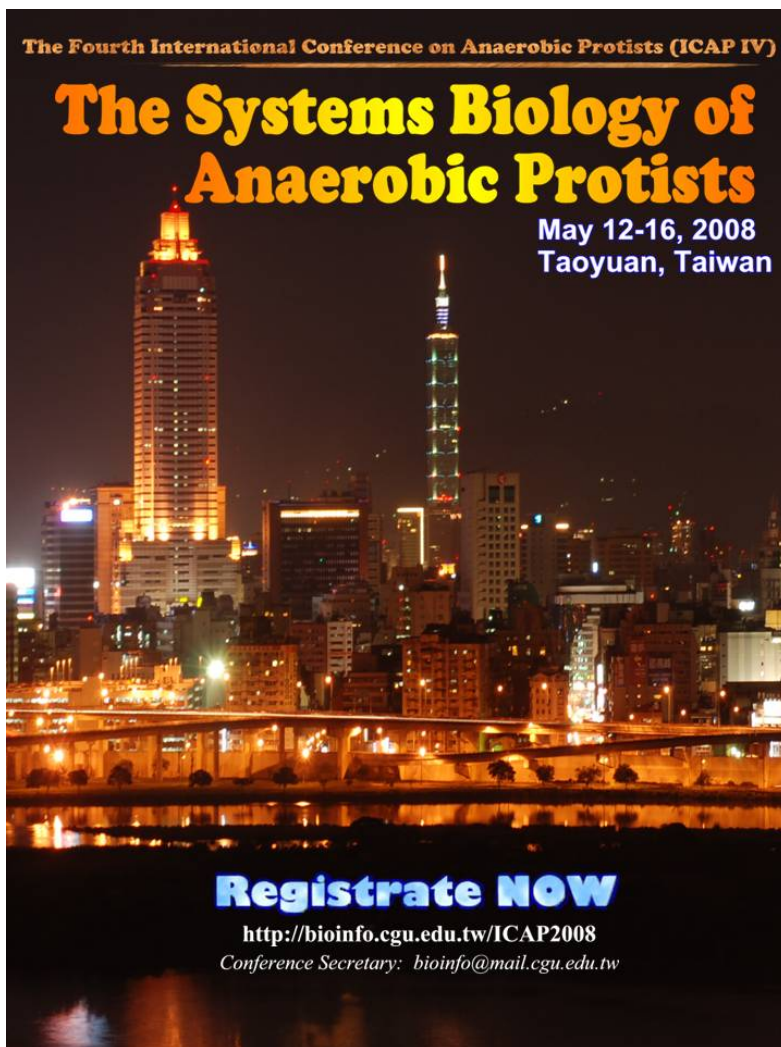
For further details visit the course website

[www.imperial.ac.uk/cpd/epidemiology/](http://www.imperial.ac.uk/cpd/epidemiology/)

Download a PDF of the course brochure here:

<http://www3.imperial.ac.uk/pls/portallive/docs/1/31511700.PDF>

# CONFERENCES



The Fourth International Conference on Anaerobic Protists (ICAP IV)

## The Systems Biology of Anaerobic Protists

May 12-16, 2008  
Taoyuan, Taiwan

**Registrate NOW**  
<http://bioinfo.cgu.edu.tw/ICAP2008>  
Conference Secretary: [bioinfo@mail.cgu.edu.tw](mailto:bioinfo@mail.cgu.edu.tw)





# CONFERENCES



## 2008 ASP & ARC/NHMRC Research Network for Parasitology Annual Conference

Sunday 6 – Wednesday 9 July at the Stamford Grand Hotel, Glenelg, South Australia

The following speakers and themes have been confirmed:

### *Host-Parasite Interactions*

- Charles Nunn (Max Planck Institute, Germany, and University of California, Berkeley, USA)
- Jennie Blackwell (Cambridge University, UK)
- Peter Hudson (Pennsylvania State University, USA)
- Hamish McCallum (University of Tasmania)
- Rick Speare (James Cooke University)

### *Apicomplexan Organelle Biology*

- David Ferguson (Oxford University, UK)
- Geoff McFadden (University of Melbourne)

### *Parasite Proteases*

- Ben Dunn (University of Florida (USA))
- John Dalton (Institute for the Biotechnology of Infectious Diseases, UTS)
- Katja Fischer (QLD Institute of Medical Research)

### *Plant Parasitic Nematodes*

- David Bird (North Carolina State University, USA)
- Gregor Yeates (Landcare Research, New Zealand)
- Mike Hodda (CSIRO Entomology, Canberra)

### *State-of-the-Art Technologies: Proteomics*

- Jonathan Wastling (University of Liverpool, UK)
- Alan Wilson (University of York, UK)
- Ben Herbert (University of Technology, Sydney)

### *Parasites and the Aquaculture Industry*

- Andy Shin (University of Stirling, UK)
- Mehdi Doroudi (SARDI Aquatic Sciences, Adelaide)
- David Raftos (Macquarie University)

There will be a symposium on Parasites of Livestock, with the speakers yet to be confirmed.

Student ASP members are eligible for generous financial assistance to attend the conference so join now if you haven't already done so! <http://www.parasite.org.au/member.htm>

For the latest conference news [www.parasite.org.au/arcnet](http://www.parasite.org.au/arcnet) registration and abstract submission opens mid-late January 2008.





**2008 ASP & ARC/NHMRC Research Network for Parasitology  
Annual Conference  
The Grand Hotel, Glenelg, Adelaide  
July 6-9<sup>th</sup>, 2008  
Application for Student Travel Grant**

The Australian Society for Parasitology provides support for full-time students enrolled in a higher degree at a recognized Australian University, and for recent graduates of less than 1 year's duration, to attend the ASP conference. The amount awarded is decided each year by Council and provides assistance towards travel and accommodation costs, and conference registration. To apply for the grant, please complete the form below and send to the current Executive Secretary of the ASP.

The conditions of the grant are:

1. The applicant must provide evidence (signature from head of department) that they are currently, or were recently, enrolled for a higher degree.
2. The student must have been a member of the Australian Society for Parasitology Inc. for at least 3 months prior to the commencement of the conference (ie. prior to 6<sup>th</sup> April, 2008).
3. It is not essential for current students to present a paper at the conference to be eligible for the award. However, we do strongly ENCOURAGE students to present their work, even if they have obtained preliminary data.
4. Details of travel and accommodation costs must be provided with this application. Copies of tax invoices must be provided to the ASP Treasurer at the conference.
5. Travel Grants will be disbursed in person at the conclusion of the Annual General Meeting of the Society.
6. Closing date for Applications: 30 April 2008

I ..... certify that I am a post-graduate student enrolled as a full-time student at .....

I further certify that I have registered as a full student registrant at the conference.  
If presenting, my presentation/poster is entitled:

.....  
.....

Name of Principal Supervisor .....

Name of Head of Department .....

Department/School .....

Institution .....

City/State/Post Code .....

Signature of Student ..... Signature of Head of Dept.....

Please forward the completed form to:

Mrs. Lois Small, Executive Secretary of the ASP

Email [lois\\_small@nt.gov.au](mailto:lois_small@nt.gov.au)

Fax 08 89992024

Mail PO Box 80, Royal Brisbane Hospital, Herston, QLD, 4029



## Nominations for Bancroft-Mackerras Medal

The Bancroft-Mackerras Medal may be awarded to a member of the Society who, in the opinion of the selection committee, has made an outstanding contribution to the science of parasitology, particularly in work published during the last five years.

Nominations should be made by a proposer and seconder, and should consist of:

- A detailed statement of nomination describing the nature of the "outstanding contribution to the science of parasitology" for which he/she has been responsible. The statement should be signed by the proposer and seconder, or each may submit a separate statement.
- A *curriculum vitae* including a list of all publications.

Note that the Medal is intended for members whose research program has been productive during the last five years. The permission of the nominee is not required and the nominee need not be aware of the nomination.

Nominations should be sent direct to the current ASP Executive Secretary. Detailed information on nomination and selection procedures is given in the By-Laws of the ASP Constitution. Nominations are due each year at the end of October.



## Nominations for ASP Invited Lectureship Travel Grants

To complement the scientific presentations at the Scientific Meetings of the ASP, overseas researchers of international reputation in a field of parasitology may be invited to attend and present their work. The invited speaker's expertise must be common to a discipline or symposium conducted at the Scientific Meeting. The visitor must be nominated by a member of the Society.

The Society will provide a travel grant to assist in the finance of the trip. The support will be based on an economy class direct

return airfare from the recipient's home city to Australia, the necessary interstate travel and reasonable living expenses based on actual costs. Registration at the Scientific Meeting will also be included.

The total value of the lectureship will be determined by Council but it is expected that the recipient, or his/her Australian sponsor, will also seek to provide additional or alternative financial support.

Applicants must include the following information:

### Details of visiting specialist

An up-to-date *curriculum vitae* must be attached to the application. The following details should be supplied:

- Date and place of birth
- Present nationality (and former nationality, if applicable)
- Present position held
- Full address of employing institution, including phone, fax and Email numbers
- Detailed evidence of expertise in relevant discipline (list of publications, etc.).

### Details of Australian nominator

- Name of member organizing the visit, including full address, phone, fax and Email numbers
- Details of all other applications which have been made for financial assistance towards travel/accommodation costs. Total value of other contributions must be included.

### Details of program

The program should normally last a minimum of 2 working weeks and cover at least 2 States or Territories.

Details should include:

- Date of visit
- Program being arranged, including institutions to be visited (with dates) and the purpose of each visit (lecture, seminar, workshop, research discussion, etc)
- Aims, rationale and likely benefits of visit
- Contribution to be made at Society's Scientific Meeting

Applications plus supporting documentation should be sent to the ASP President by the end of December in the year preceding the Conference. Applicants should check with the Conference Organisers for details of conference theme, symposia, workshops, etc. before submitting an application.

## JD Smyth Travel Awards

These awards are designed specifically to assist full-time postgraduate student to travel overseas to gain knowledge on techniques that may not be available in Australia, to form liaisons that may benefit their careers in the longer term and to promote the cause of parasitology in Australia. It is primarily to conduct research or to attend conferences and visit research institutes. The fellowship is not provided for the primary purpose of attending a conference. Applicants must be members of the ASP Inc of at least 6 months standing and enrolled in a postgraduate degree at a recognised Australian University.

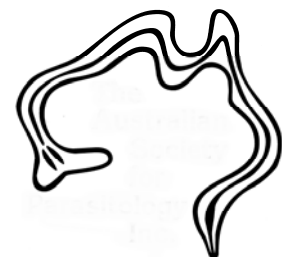
Four scholarships are awarded each year and applications are considered in two rounds, with closing dates in December and June. The maximum value of the fellowship is to be determined annually by the Council and may be up to \$2500. Recipients are to be chosen by a selection committee appointed by Council.

Applications should include details of the travel to be undertaken, the applicant's research, evidence of the supervisor's support, budget and an abbreviated CV. For research based proposals, applicants should nominate the international laboratory to be visited, the purpose of the visit, including techniques and skills to be gained, and the timeframe. If attendance at a conference is to form part of the travel then the conference name and a copy of the conference abstract should also be included. Full details of laboratory visits are to be included. Proof of acceptance of the abstract by the conference organisers **must be provided prior to receiving** the award. The application must not number more than 6 pages including the CV, extra information and abstract (if applicable).

Awardees will be required to provide a report of their trip within three months of return from their travel.

Applicants should apply to the current Executive Secretary of the Australian Society for Parasitology using the application form from the web site or this newsletter. Applications must be accompanied by the details requested above and an abbreviated CV. Email, mail or fax your application.

Applications should be received by the due dates: June 30<sup>th</sup>, 2008 and December 31<sup>st</sup> 2008.





## APPLICATION FOR JD SMYTH POSTGRADUATE TRAVEL AWARD

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Name:

Address:

Phone:

Fax:

Email:

University:

Enrolled Degree:

### **Supervisor's Certification**

I hereby affirm that is a bona fide postgraduate student working under my supervision.

Name:

Signed:

Date:

### **Research Visit**

Name and address of laboratory to be visited:

Name of host:

Purpose of visit:

Justification:

### **Conference Attendance (if applicable)**

Conference Title:

Venue:

Type of presentation to be given:

Title of Abstract:

(Please attach a copy of the abstract)

Justification:

**Budget** Please provide a budget including details of travel expenses, accommodation and research costs. Please also provide details of any other funding sought or received for this travel.

**Curriculum vitae** Please attach a brief curriculum vitae.

**Additional information** Applications NOT to exceed 6 pages.

Successful applicants will be required to submit a report to the ASP council within three months of their return from their travel.

Applications must be received by the due dates: June 30th or December 31st

**Email, mail or fax your application to:** The Executive Secretary of the Australian Society for Parasitology ([www.parasite.org.au/Council.html](http://www.parasite.org.au/Council.html))







**the australian society for parasitology inc.**



## **CHANGE OF ADDRESS**



If you have changed your address, title or name; or if there is a mistake in your mailing label, please fill out the details below and send them to:



ASP Secretariat,  
c/- RGSQ  
237 Milton Road  
Milton QLD 4064



Name as it appears on present mailing label:  
(if possible, please enclose the old mailing label)



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Title, name and postal address for future mailing labels:



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Tel: .....

Fax: .....

Email: .....





**2008 ASP & ARC/NHMRC  
Research Network  
for Parasitology  
Annual Conference**

**Sunday 6 – Wednesday 9 July**

**Stamford Grand Hotel  
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**Invited speaker theme topics:**

- **Host-Parasite Interactions**
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- **Parasite Proteases**
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- **State-of-the-Art Technologies: Proteomics**
- **Parasites and the Aquaculture Industry**
- **Parasites of Livestock**



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