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**MERRY CYSTMAS**



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# FROM THE PRESIDENTS DESK



One cartoon that I have always enjoyed comes from a Peanuts Annual, published many years ago. Those of you who remember Peanuts from the days before Snoopy came to dominate the series, will recall that Lucy used to run a “Psychiatric Help” Booth from the sidewalk. It seemed her sole customer was Charlie Brown, who sought out help from Lucy for the princely sum of 5 cents. In this particular cartoon, Lucy is berating Charlie Brown for his many failings. “You’re hopeless, Charlie Brown”, “You’re a loser, you’ll amount to nothing, nothing you do ever works”, and so on. (Actually, I suspect I made up most of those statements, but this was the gist of Lucy’s attacks). The penultimate panel has Charlie Brown staring pensively at the reader, before the last panel, in which he stands and with fist in the air, bellows in a voice that bowls Lucy over, “Just wait until next year!”

I often think of this cartoon as the grants for the year are announced. Liberal doses of inspiration and perspiration are the ingredients of each proposal, and it can be disheartening when they aren’t successful. My congratulations to all those who received funding this year. For those who missed out, my commiserations. I hope, like Charlie Brown, you are already looking to the next year.

Recently, Council provided funding for a workshop to discuss the production of a new text for Veterinary Parasitology. I attended on behalf of the ASP, and joined in discussions with 13 parasitologists representing the Australian and New Zealand Vet Schools. The purpose of the book is to provide a uniform text suited especially for Downunder veterinary training and practice. The enthusiasm of the team, and their commitment for the project, bodes well and we look

forward to a high quality publication in the coming years. Our thanks go to Nick Sangster of Charles Sturt University, who is leading this initiative.

The organization of the ASP 2007 Conference is progressing. The committee has whittled down the list of potential invited speakers and the program should prove to be most interesting and varied. I look forward to seeing you all in Canberra next July. Still on conferences, it is good to see that our conference calendar looks to be organised right through to 2010. This organization has been a result of some hard work from Nick Smith, his Network staff and enthusiastic local organizers. The organization for ICOPA XII has begun already. Although 2010 seems so far off, there are aspects requiring action now.

ASP Council will meet for its mid-term meeting in early February. The Agenda is filling out. Council is keen to hear your views and ideas on things parasitological in Australia. If you have any matter of relevance to Australian parasitology you would like discussed, be it an initiative that promotes our discipline, suggestions regarding the way the society operates, a brickbat or a bouquet, please don’t hesitate to contact me.

I would like to extend my best wishes and hopes for a successful and rewarding New Year. Here’s to a year of great parasitology .

Malcolm Jones





# FROM THE EDITOR

Welcome to the festive edition of the ASP Newsletter, the final issue for 2006. I am sure you noticed the change in cover. I am hoping that it will actually look good when it goes to press. The colour is a trial so please send me any thoughts that you may have.

I have been musing on why it is that we feel the need to collect paraphernalia? I am not talking any old paraphernalia but the type related to one's work area. For example, the marine science folk with whom I share an office have shark mobiles, 4ft plastic penguins and lots of fantastic underwater images, representing a diversity of species, all over the walls. I have a collection of paraphernalia but my trinkets seem to draw bemused looks from others, possibly because of their associations to faeces.

The festive season is great for parasitological paraphernalia. It brings new designs of Christmas poopers (plastic animals that dispense jelly-bean poop). Past poopers have included 'oh deer', Daisy the cow and Baahh Humbug. This year we see the addition of poo-lar bear and a walking pooping penguin.

I have them all, each lined up on my desk right next to the the odd squad little book of poo, The Not So Little Book of Dung and Mammal Tracks and Scats. Now, Mammal Tracks and Scats is quite useful for those interested in wildlife as it has great colour images that enable identification of marsupial poo. I have found these scat images to be great for visiting international parasitologists who are inevitably impressed both by our unique fauna and by their equally unique scats. The perfect example here is that of the common wombat whose pellets are cuboidal and typically deposited neatly atop fallen logs or rocks.

Other parasitological paraphernalia I've acquired includes an endangered faeces shirt from Baltimore zoo with images of poop from endangered animals and an 'Antony van Leeuwenhoek flying a *Giardia* kite' T-shirt.

One that really draws people in is a jar of Olympic horse poo collected at the Sydney 2000 opening ceremony which proudly sits above my bench (and surprisingly, it's still fairly free of fungal contamination).

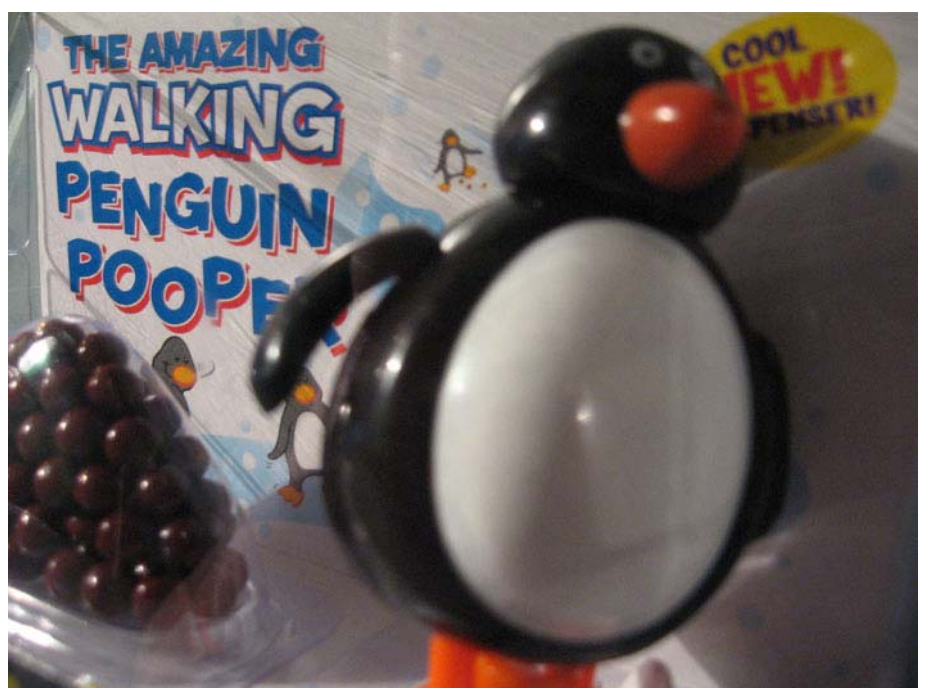
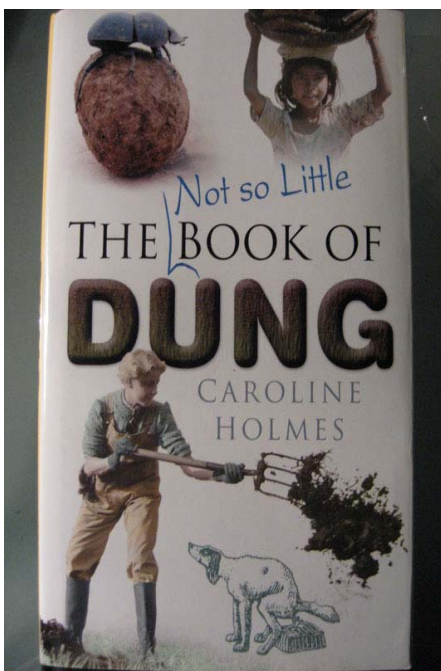
I recently read of a dung beetle snow dome (complete with dung ball) that one can apparently obtain in Cootaburra, a town in Western NSW. The town also sports one of those 'big' icons in the form of a giant Dung Beetle.

All this has led me to believe that you have to be a parasitologist to not only understand but also really appreciate parasitological paraphernalia. So where is this going? To a new column for the ASP Newsletter: 'Parasitological Paraphernalia'.

The column is open to include paraphernalia as I have described, but you may also be in possession of parasite antiquities, such as early parasitological teaching aids, that would be also ideal for such a column. To entice submissions, I have poopers for the first four responses that include an image and description of your favorite piece of 'parasitological paraphernalia', and if you wish, include a brief explanation of how the object relates to your area of expertise.

All that remains is to thank everyone for their contributions for this issue and wish you all a very merry Christmas and a safe and Happy New Year full of grant successes.

Michelle Power



# IJP NEWS



All is going well at the IJP. It is a busy time of year with a new Editorial Board being organised for the next 3 years as well as processing an ever-increasing number of manuscripts. Submissions in 2006 seem likely to break the 2005 record of 551 papers for the year, going against past trends, and we are

looking forward to having a rest for a week between Christmas and New Year (not that the IJP ever sleeps - we still receive submissions on Christmas day).

Some may be interested in the new Specialist Editor Board. Many of the old faces (they prefer the term experienced) will be there but there will also be new blood. To cope with the ever-increasing number of submissions we have chosen to expand the board from 32 to 39 and to give it an even greater international flavour with board members based in 12 different countries. We have also created a new position of Deputy Editor (Reviews) as recognition of the important role this form of publishing will continue to play in the future success of the IJP. The 'old' board has left big shoes to fill, but

the Editorial team of Ian, Maria and myself look forward to welcoming the incoming team in the new year and are confident they will contribute to consolidating our position as the leading journal in the field.

We also recognise that the increased throughput (and hence competitiveness) at the journal has consequences for ASP members. For one thing, there are many more papers to review. We are very grateful to the many members who continue to enthusiastically support the journal through their submissions, rapid reviews and helpful advice.

We wish you all a safe and happy Festive Season and New Year.

Brendan Crabb  
Editor-in-Chief





# NETWORK NEWS

## Recent Research Grant Successes

ARC/NHMRC Research Network for Parasitology scientists have again performed extremely well in recent ARC and NHMRC funding rounds, being awarded over twenty grants and fellowships worth almost \$8 million:

### ARC Discovery Projects

Kiaran Kirk and Kevin Saliba (Australian National University) Ion transport in the malaria parasite and parasitised erythrocyte. Georges Grau and Nick Hunt (The University of Sydney) Microparticles as effectors of microvascular alterations in brain inflammation

### ARC Linkage Projects

Andrew Thompson, Alan Lymbery and colleagues (Murdoch University) The nature, diversity and potential impact of infectious agents in Western Australian threatened mammals.

Shelley Walton (Menzies School of Health Research) and colleagues Evaluating the impact of new interdisciplinary interventions to enhance dog health to benefit community health outcomes in remote Indigenous communities.

John Ellis (University of Technology) and colleagues Gastrointestinal parasites and their diagnosis.

### ARC Linkage International Project

Robin Gasser, Aaron Jex (The University of Melbourne) and Dr DT Littlewood (UK) A high-throughput method for unlocking the mitochondrial genomes of significant pathogens.

### NHMRC Project Grants and Fellowships

Kiaran Kirk (Australian National University) Chloroquine resistance and the physiology of the malaria parasite's digestive vacuole.

Ian Clark (Australian National University) Research Fellowship. Georges Grau, David Cook, Nick Hunt (The University of Sydney) Relationship between cell-cell interactions and disease severity in patients with cerebral malaria.

Shelley Walton, Bart Currie (Menzies School of Health Research) An immunodiagnostic assay for scabies

Alex Loukas, Mal Jones (QIMR) Role of tetraspanins in the schistosome tegument

Mal Jones, Alex Loukas, Don McManus (QIMR) Transport pathways of host-derived iron in schistosome parasites

Don McManus, Geoff Gobert (QIMR), Paul Brindley (Tulane University) Transcriptome profiling of the human pathogen *Schistosoma japonicum*

Michelle Wykes, Michael Good, Susan Pierce (QIMR) Malaria and long term immunity.

Dave Kemp (QIMR) Research Fellowship.

Alex Loukas (QIMR) Research Fellowship

Leann Tilley (LaTrobe University) Trafficking of the cytoadherence-mediating protein to the host cell surface in malaria parasite-infected erythrocytes.

Bernd Kalinna (The University of Melbourne), Paul Brindley (Tulane University) Transduction of *Schistosoma mansoni* using Boudicca, an endogenous retrotransposon of schistosomes

Brendan Crabb, Stuart Ralph (WEHI) Epigenetic control of antigenic variation in *Plasmodium falciparum*.

Alex Maier, Melanie Rug (WEHI) Functional genomic analysis of exported DNA J molecules in the malaria parasite *Plasmodium falciparum*.

Tim Davis, Harin Karunajeewa, Ivo Mueller, Kevin Batty, Prof Ken Ilett (The University of Western Australia), A/Prof Stephen Rogerson (The University of Melbourne) Antimalarial drugs in pregnancy: preclinical and clinical studies of conventional and novel agents.

## WHO/TDR

Malcolm Jones & Geoff Gobert (QIMR) A hidden antigen approach to schistosomiasis vaccination.

Congratulations to all the successful researchers!

## Network Travel Award Winners

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

Dr. Catherine Miller, IBID Research Fellow, University of Technology, Sydney, who participated in a Researcher Exchange with visit Prof. Emanuela Handman's Leishmania Laboratory at the Walter and Elisa Hall Institute in Melbourne for the purpose of training in the safe handling of the *Leishmania* parasite in October 2006.

Miss Mieke Burger, PhD student in Marine Parasitology, The University of Queensland will attend the Fish Histopathology Workshop at the University of Tasmania in December 2006.

Mark Pellegrino, Post-graduate student (PhD candidate), from the Gasser laboratory, The University of Melbourne who will participate in a Researcher Exchange with the laboratory of Alex Hajnal, at the University of Zurich in Switzerland to conduct parasitic nematode research.

Mai Tran, from the Helminth Biology Laboratory, Division of Infectious Diseases and Immunology at QIMR for a Researcher Exchange for two month's experimental research at the Biomedical Research Institute (MD, USA) and University of Pennsylvania (PA, USA).

Prof. Leann Tilley, for a Researcher Exchange for Professor David Ferguson, Oxford University to visit Australia to continue collaborative research with Leann's lab on the morphology of the malaria parasite, *P. falciparum*, Nick Smith's lab on the morphology of *Eimeria spp.* and *Toxoplasma gondii* and new collaborations with Andrew Thompson's lab on the morphology of developmental stages of *Cryptosporidium* and *Blas-tocystis*.



# IMAGES NEEDED

## For the History of Parasitology in Australia and Papua New Guinea



**If you have interesting pictures of people or institutions please contact Ian Beveridge or Peter O'Donoghue.**

It is now seven years since the attempt to document the history of parasitology in Australia and PNG was commenced, at the suggestion of Professor Sprent. Finally, we have reached the point where we have the text of all 22 chapters in hand and the primary editing has been completed. We are now at the stage of asking people to review the entire text to try to identify omissions or excessive duplication of events.

However, we have relatively few photographs of parasitologists and of institutions, and it may be that members of the society not intimately involved in writing may in fact have particularly interesting photographs of particular historical interest.

We are therefore asking any members of the Society who have photographs of "historical" interest to contact either Peter O'Donoghue or myself. We will scan the photographs or slides and return the originals to you

We have relatively few photographs of parasitologists from WA and Tasmania, so any contributions in this area would be welcome. Pictures that may be of particular interest would be of parasitologists "at work". For example, John Walker has provided a fantastic picture of A.J. Bearup conducting investigations on sparganosis in feral pigs. Bearup is shown in the field, on a horse, with a shotgun in one hand and a rifle in the other!

If anyone has these sort of revealing photographs, they would make a very welcome introduction to the book.

This might also be an appropriate time to appeal to any members of the Society with photographs of any sort to donate them to the Archivist, Carolyn Behm.

There is one caveat to this appeal. We refuse to accept any responsibility for declining to include proffered photographs in the book!

Ian Beveridge  
And  
Peter O'Donoghue





# JD Smyth travel award Report

**Jasmin Hufschmid**

PhD Candidate,  
University of Melbourne

**ICOPA Glasgow 06 and  
Institute of Parasitology  
University of Zurich**

The 11<sup>th</sup> International Congress of Parasitology was held at the SECC (Scottish Exhibition and Conference Centre) in Glasgow, Scotland, in August 2006. The SECC, locally referred to as the armadillo, is a large purpose-built conference centre located on the banks of the river Clyde, not far from the city centre. I arrived in Glasgow two days before the start of ICOPA, just as Scotland said good-bye to one of its warmest summers on record and typical Scottish weather returned to the country. Just as well I had brought plenty of warm clothes... A welcome reception opened the informal part of the congress on Sunday night, giving around 2000 delegates from all over the globe a chance to talk to colleagues and sip at a glass of wine or two. The official part of the conference began the next morning with a bagpipe rendition of Amazing Grace, followed by a number of speakers, such as Dr. Keith Vickerman (Honorary President of ICOPA XI), Sir Kenneth Calman (Chancellor of the University of Glasgow) and a thought-provoking plenary presentation by Lord Robert May (member of the British House of Lords and former President of the Royal Society).

I presented a poster with the title: "Effects of ectoparasite elimination on coat condition of Australian Mountain Brushtail Possums (*Trichosurus cunninghami*)", and received very interesting feedback from a number of people. With around twelve concurrent sessions over 5 days, as well as 1500 posters, there was an enormous variety of talks and topics to choose from. Malaria and parasitological diseases of medical importance in developing



countries featured prominently, but there was also a large veterinary component. The sessions of most interest to me personally perhaps included those involving ectoparasites and parasites in wildlife. While fewer presentations focused on parasites exclusive to wildlife, it was apparent from the number of wildlife related projects presented, that the role of wildlife as reservoirs for parasitic disease of medical and veterinary importance is becoming more and more recognised. I also found myself fascinated by many other sessions, such as a session on the use of GIS in parasitology, where it can be used, for example to predict the prevalence and spread of disease. This conference was a great eye-opener as to how wide a field parasitology really is.

The social component of the conference was perhaps a little limited, but there was a large civic reception for delegates at the Glasgow Science Centre on Monday night, which allowed more mingling in a relaxed atmosphere. Additionally, as the Edinburgh Fringe Festival was running at the same time, a theatre group from the Festival performed excerpts from their play "Parasites" in the main auditorium during lunchtime on Monday. The Young Parasitologists Party took place on Tuesday night in a club in the city and attracted many budding parasitologists.

Now, of course, we are looking forward to the 12<sup>th</sup> ICOPA in 2010, which will be in Melbourne!

At the end of the conference I went on a hike through the Wester Ross in the Scottish Highlands. The weather was, again, typically Scottish, with low clouds obscuring the mountain tops for most of the trip. Hiking and "bagging" (i.e. climbing) Munros appears to be a national passion in Scotland, and numerous stone huts ("bothies") can be found along hiking routes to provide shelter for hikers from weather and midges (the latter being of much more concern). A Munro is a Scottish mountain which is over 3000 feet high, and there are 284 of them. Many Scottish Hillwalkers make it their lifetime ambition to "bag" all of them. An example to illustrate the toughness of the Scottish Hillwalker: We came across two ladies in their seventies, who climbed four Munros in a day (in poor weather and with limited visibility) and then bivvied next to a creek only 200 meters from the bothie because they arrived at the creek after dark with no more battery power in their head torches. They returned to the bothie the next morning as chirpy as if they had spent the night at the Hilton. But we came to understand why so many Scots love hiking. The landscape, with its rocky mountains, covered in olive green grass and heather and rising steeply above cool, deep lochs, is truly magical.





After Glasgow I flew to Switzerland, where I spent an afternoon at the Institute of Parasitology at the University of Zurich. I was fortunate enough to have been invited there to give a 40 minute seminar on my project. At the institute I met with Dr. Peter Deplazes and we discussed aspects of my research as well as talking about some of the work currently being conducted in Zurich. It was very interesting to meet some of the other workers at the institute, and I have to thank Daniel Hegglin especially for his efforts to try and get my video clip running in Powerpoint. My presentation was followed by a lively discussion with the audience, which lead to many interesting questions and much valuable feedback.

I would like to sincerely thank the ASP again for giving me this award and for making it possible for me to travel to Glasgow and Zurich and to present my work to such a wide and interesting audience.



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

**Bancroft-Mackerras Award - December 31<sup>st</sup> 2006 (for award in 2007).**

**Invited Lectureships Travel Grants - December 31<sup>st</sup> 2006.**

**JFA Sprent Prize – Next round to be announced Issue 2, 2007.**

**JD Smyth Travel Awards - December 31<sup>st</sup> 2006.**

**ASP Fellowships - before next mid term Council meeting (February 2007)**

**See announcements in this Newsletter or visit the ASP website for more information : [www.parasite.org.au](http://www.parasite.org.au)**



# STATE NEWS

## AUSTRALIAN CAPITOL TERRITORY

Dr Peter Holdsworth, CEO of the Animal Health Alliance (Australia) Ltd, was awarded the inaugural Animal Pharm Life Time Achievement Award on October 12 at a gala black tie dinner in London. The award presentation took place at the East Wintergarden Centre in Canary Wharf and was attended by 180 people from the global animal health industry. Dr Holdsworth's award was in recognition of his leadership and contribution to the international harmonisation of regulatory guidelines for demonstrating efficacy of veterinary parasitological products.

**From the Behm lab.** The lab welcomes Corinna Paeper, who has recently completed her PhD at the Research School of Biological Sciences (ANU). Corinna joins the lab as a PostDoc working on our new project 'Exploring a model system to develop controls for plant-parasitic nematodes' mentioned in the last issue of the newsletter.

Congratulations to the two Honours students, Fay Khaw and Laura Wise, who both finished honours recently. Fay has started working in the lab as a Research Assistant, while Laura is taking a three week holiday in Thailand before returning to do some more work in the lab!

## NEW SOUTH WALES

### EMAI Parasitology Garry Levot

**Looking for parasites.... the Lice detection test project:** Paul Young and Garry met with Dr. Johann Schroder (AWI) in early November to discuss a proposal for final development and manufacture of an on-farm diagnostic test to detect sub-clinical lice infestations.

AWI had been unable to enlist a commercial manufacturer for the product and was likely to drop the project unless an alternative strategy was adopted. On the basis of the discussion a new project application was submitted via Head Office with a revised budget and milestones. In the meantime Paul is working on ways to shorten the time required to complete the current version of the diagnostic test.

**Some of these parasites didn't die - how come?..... the IGR resistance in sheep lice and blowflies project** The final report for this project was submitted and accepted by *Australian Wool Innovation (AWI)*. Garry Levot and Narelle Sales developed a laboratory test to diagnose resistance to diflubenzuron (or triflumuron) in sheep body lice (*Bovicola ovis*) populations. Prior to this test only long-term expensive pen trials could be used. The laboratory test is still laborious but it appears that results of a single susceptible discriminating concentration test are sufficient to detect resistance.

**Don't want to kill any sheep dipping contractors.... the Operator exposure project:** Garry spent a few days around Dunkeld in the foothills of the Grampians (central west Victoria) working with colleagues from the University of Queensland and Greg Richards, a local sheep dipping contractor, to measure the exposure risk to operators of immersion cage dips using diazinon. Results of this AWI funded project will be considered by the Office of Chemical Safety and the Australian Pesticides and Veterinary Medicines Authority (APVMA) in their regulatory review of the use of diazinon in the sheep (and other) industries.

**If a honey bee colony is a 'super-organism' this insect is a parasite.....the Small Hive Beetle project:** Garry has been involved in the development of an insecticidal refuge trap for Small Hive Beetle, *Aethina tumida*, control in bee hives.

With funds provided by the *Rural Industries Research and Development Corporation* several prototype devices were made by a plastics fabrication company before the ultimate design was accepted. Honey residue trial results demonstrated negligible risk to honey and trials in NSW DPI hives demonstrated safety to bees. An application for a Research Permit was submitted to APVMA in November with a view to conducting further efficacy testing early next year. With assistance from Mr John Ryan, Commercialisation Manager with NSW DPI Garry wrote a commercialisation dossier that, we hope, will interest a company to register the product, not only in Australia but also overseas where we have patent protection.

### Institute for the Biotechnology of Infectious Diseases

IBID has been thrilled to host Prof. David Ferguson from Oxford for the last 3 weeks of his visit to Australia. While he was here David presented two fascinating seminars on the role of morphology and microscopy in research and was also on hand to give advice and help to various members of Nick Smith's group about techniques of microscopy and how to achieve pictures like the amazing ones he produces. We also heard an interesting seminar from Dr. Libor Mikes from Charles University in Prague. Libor is visiting John Dalton and spoke about work he has been doing on bird schistosomes and the proteases the cercariae secrete.

Nick Smith traveled to New York in September to visit his PhD student, Sarah Flowers, who is currently working with Prof. Brian Chait at Rockefeller University and from there continued on to Puerto Vallarta, Mexico where he was an invited speaker at the International Poultry Symposium. Kate Miller received a Travel Award from the ARC/NH&MRC Network for Parasitology to travel to Melbourne in October to visit the lab of Prof. Emanuela Handman.



She was made very welcome by Joan and Anu and learnt everything she needs to know about growing *Leishmania*. Margarita Villavedra has just returned from Los Angeles where she attended Glycobiology 2006: The Annual Conference of The Society for Glycobiology. Glycobiology 2006 was followed by the meeting of the Participating Investigators of the Consortium for Functional Glycomics, where Margarita picked up invaluable advice on how to work with her heavily glycosylated protein from *Neoparamoeba*.

Lisa Jones and Kate Miller continued their involvement with the Australian Museum Science activities and took our Parasitology display to Homebush for Science in the Suburbs. Another successful couple of days despite the heavy rain! Children and adults alike really enjoyed the opportunity to see some parasites up close – as always the head lice were a real winner! Lisa and Kate along with Nicky Boulter, Rowena Lock, Rob Walker and Mike Lees were also involved in a recent Careers day held at UTS for Pymble Ladies College. We ran a little workshop involving isolating DNA from a mystery organism (actually chicken liver) for Year 11 students to give them an idea of what it would be like to work in a laboratory.

The Deputy Premier of NSW, John Watkins, officially opened our new Science building at UTS in October. After the official ceremony and the yummy morning tea, the official guests were taken on a tour of the new building including our labs on the 6<sup>th</sup> floor where Nick Smith gave brief presentation on the research conducted here in IBID.

Congratulations to Jan Slapeta who has accepted a lectureship in Veterinary Parasitology at the University of Sydney, he will be leaving us in February. Although sorry to see Jan leave we wish him well in his new position and look forward to collaborating with him in the future. Congratulations to Lyndal Thompson on the birth of her daughter Sidney and Serena Sequieria on the birth of her son Sean (the biggest baby born at

Campbelltown Hospital – an amazing 5 kgs!). The baby boom continues with Sabina Belli and Iveta Slapetova both expecting babies next March.

## Macquarie University

*Marsupial Research Group* Things have been reasonably quiet within the marsupial research group. The Department held its annual Post-graduate student conference in November, so much of that month saw Matt Dowle, Nichola Hill and Inger Vilcins preparing reports and talks. Since then Matt has gone on leave and Inger and Nichola have been busy preparing manuscripts.

Prior to Matt's departure he managed to snare a rare Eastern Pygmy possum in one of his bandicoot traps (pictured below). This image became the winner of the marsupial photo of the month competition that the lab runs.

Michelle Power continues to write grants and appears to be going for the record for number of submissions in the shortest amount of time. Michelle has been occupied with entertainment events for the Departments Xmas party. She and some colleagues have devised a series of interesting games to raise money for the Salvo's Xmas appeal, continuing the work of our recently retired executive officer.

One game, the Tequila Toss managed to raise over \$100 in less than 10 minutes, and shared similarities with a two-up game.

December saw Lesley Warner pass through Sydney on her way to Adelaide. Her brief stay included an introduction to one of Sydney's finer coffee shops. Simon Reid, Stan Fenwick and Ryan O'Handley also ventured to Sydney for an EBCRC conference which encompassed an evening of tapas and beer deep in the heart of the city.

*EBCRC* Quach Truong is back at Macquarie after extensive travels through Europe and the UK. Quach has brought back valuable experience gained in Denmark on the latest proteomics techniques which are not currently used in Australia. Quach's ICOPA oral presentation on *Cryptosporidium* proteomics was well received. He has now returned to lab work and is currently identifying proteins from his *Cryptosporidium* proteome map and planning the inevitable "thesis write up". Belinda Ferrari's work on application of quantum dots for *Cryptosporidium* continues but it appears that the organic fluorophores outperform QDs for antibody based detection. QD technology is still evolving so there is still hope for using QDs for environmental applications. The EB CRC recently held their third annual conference and showcase in Sydney.





# STATE NEWS

Quach gave an oral presentation on the "Proteomics of Poo" and Anitha Alagappan's poster, "Development of a rapid tool for differentiating *Cryptosporidium* species" was highly commended and gained her a prize. Anitha has been busy analyzing sewage samples and human clinical samples for *Cryptosporidium*. All are looking forward to heading to Canberra come July for the ASP / Parasitology Network conference.

## NORTHERN TERRITORY

### Menzies School of Health Research

In November the Scabies and Skin Pathogen Lab at the Menzies School of Health Research decided on a change of location for their monthly project meeting. We swapped the usual venue- a meeting room with no windows- for the more scenic location of a 30 foot catamaran cruising Darwin Harbour. It was a most productive meeting, with many of the more innovative ideas coming after the champagne lunch.

Early December saw the lab set a new record. In one week, over 3500 individual scabies mites were collected from a single crusted scabies patient. Kate Mounsey and Yvette Emmanuel were dreaming mites by the end of the week after spending long days and nights picking mites and conducting in vitro sensitivity assays. The assays provide important monitoring of any changing trends in the response of mites to a range of acaricides, as well as providing valuable information to the treating clinicians.

It's not all is champagne, sunsets and biggest mobs of mites however. Annette Dougall is finding that she's not alone in thinking that December is far too hot to be traipsing about the Territory bush. As the humidity has gone up, the numbers of sandflies she has been finding in her

traps has been dropping. With virtually nothing known about the species of sandflies present in the Top End let alone their habits, all the information that Annette collects will provide valuable insights into the potential role of sandflies in the transmission of *Leishmania* in the Top End.

Also on the down side is that this month will see us farewell our valued team member Amy Slender. Amy is off on an extended overseas working holiday for which we all wish her a fabulous time. We look forward to her promised reports of the scabies situation everywhere she goes- and hope to receive mite-infested skin scrapings from exotic locations around the globe. Amy, no one truly escapes the lure of the scabies mite...we know you'll be back someday.

## QUEENSLAND

### QIMR

Geoff Gobert (Molecular Parasitology Lab) has returned from Tulane University, New Orleans after a six week lab visit to ex-pat Paul Brindley, who is working on schistosome transcriptomics. Geoff's stay was funded by the Australian Academy of Sciences North American Scientific Visits Program. His association with Tulane is set to continue with the awarding of a Tulane University Phase II grant "Genomics of Mosquito-Virus Interactions: Microarray to RNA Interference" which he is co-investigator with Dr. Young Hong, Department of Tropical Medicine. Congratulations to Luke Moertel (QIMR & CQU) who has recently submitted his PhD thesis entitled, "Microarray Analysis of the *Schistosoma japonicum* Transcriptome". Lukes laboratory supervisors were Don McManus and Geoff Gobert.

Congratulations to Alex Loukas, Don McManus, Michelle Wykes, Geoff Gobert and Malcolm Jones all of whom were recently awarded NHMRC funding. Also to Mal and Geoff Gobert who were awarded a WHO grant in pathogenesis and

applied genomics. Further congratulations to Neil Raffelt and Chris Peatey (UQ and Malaria Biology Lab QIMR) both of whom achieved first class honours.

### Applied Animal Biotechnology Group

After 37 years of service from a cadet technician to scientist, last week we farewelled John Molloy who has called it quits and retired. We all thank John for his contribution to parasitology, applying immunochemistry to diagnose babesiosis, fasciolosis, and chicken coccidiosis, to name a few. John will be missed by the group and was described as the 'rock' during speeches last week. In the last week of November, we hosted Dr Felix Guerrero from the US Department of Agriculture and held Beef CRC meetings at ARI discussing future tick research programs and collaborations. Felix also presented a seminar at UQ outlining his research into tick acaricide resistance. We welcome John Goopy as a post-doc with the Beef CRC tick research group (DPI&F, CSIRO, UQ) who will be responsible for coordinating animal trials within these CRC groups. Rebecca Byrnes has also joined our group and is working with Jess Morgan developing real time assays for chicken coccidiosis.

### Anton Breinl Centre and WHO Collaborating Centre for Control of Lymphatic Filariasis, James Cook University

Parasitologist, Frogologist and intrepid road-kill hunter Rick Speare is continuing his globetrotting activities with visits to Brazil, Argentina and Sri Lanka and is currently terrorising the New Zealand frog population whilst on sabbatical leave. Rick continues to nurture his intestinal hookworm "pets" and even added an *Ascaris* to the collection on one of his trips. The filariasis Centre is extremely busy supporting the filariasis and intestinal parasite control program in Papua New Guinea with Dave Reeve, Sonia Harmen, Jane Connell and Jeff Warner setting up sentinel sites and doing baseline



Surveys. Wayne Melrose has been unable to take part in the fieldwork due to a knee operation. He has been left behind to gaze with awe and alarm at the huge pile of PPPP (prime parasite-infected Papua New Guinea Pek Pek) the field teams have been collecting. Sonia has also been working on filariasis, intestinal parasites and scabies in Tuvalu, but our work in Timor-Leste came to a grinding halt with the onset of the latest political troubles. Megan Counahan will return to Timor-Leste in December and hopefully things will get back on track. There will be some personnel changes in 2007. Sonia departs for Noumea where she will, if she can tear herself away from the French food and wine and white sand beaches, work for the SPC on HIV surveillance and explore the possibility of a project to look at HIV and parasite co-infection. Dave Reeve has almost completed his experimental work and has retreated to Mt Isa to tackle his thesis write-up.

## SOUTH AUSTRALIA

### Joint ASP/ASM

#### Parasitology Night September 20

On September 20 at the Royal Society of South Australia Meeting Rooms an evening of fish, worms and migration was held to highlight parasitology research in South Australia. The night was organised by Andrew Butcher (IMVS) and featured 6 speakers on a wide range of parasite related topics. First up was Lachlan Warren, Consultant Dermatologist from the Women's and Children's Hospital who presented a fascinating case study on larva migrans in children in the Adelaide Hills, next up was the SARDI contingent of Micko O'Callaghan who spoke about pasture larval estimations of ruminant nematodes and Nathan Bott who discussed parasites of southern bluefin tuna. After a short break for some much needed food and SA wine, Weerachai Saijuntha (University of Khon Kaen, Thailand) who is currently working in Ross Andrew's lab at Uni SA presented his work on genetic analyses of the liver fluke, *Opisthorchis viverrini*, in Thailand and Laos followed by University of Adelaide PhD Student David Schmarr's presentation on using parasites for stock discrimination of blue mackerel and to finish the

night off with a bang, Andrew Butcher told us all about the parasites the IMVS find in African refugee migrants.

The night was a huge success with about 30 local members of both ASP and ASM in attendance. It is hoped by all involved this year that the event continues into the future and continues to grow and prosper.

### SA Museum / University of Adelaide

The recent round of Annual Student Reviews in October brought together a variety of far-flung ex-lab members and students in complicated phone conference calls. Ian Whittington and Ingo Ernst managed to catch up with Allan Mooney (now near Newcastle in NSW working on an oyster farm) and Rissa Williams (now in New Zealand working for Biosecurity NZ) to assess and monitor their progress. With both working, their advancement is slowed but all are hopeful and insistent that chapters, papers and a thesis each will emerge during 2007. Kate Hutson remains the only kingfish PhD student to have stayed in Adelaide and she is progressing well having published 1 paper this year, submitted 3 others and has 1 more nearly ready to go. She presented her 'end of PhD seminar' on Friday October 13<sup>th</sup> (unlucky for some!), but not for Kate. Kate has been in demand recently for a variety of speaking engagements including the Adelaide Club (male only patronage) and won an award from the Royal Society of South Australia for Best Student Talk of 2006. She is contemplating a nationwide tour soon once she has a reliable support act! Kate is planning a well-earned break in Perth over the New Year, but this will be a working 'holiday' because she will be going out on charter boats from Fremantle to tag Samson fish. Perhaps she will run into another ex-lab mate, Clinton Chambers. Clinton now works as a Senior Marine Scientist for Worley Parsons, a provider of professional services to the energy, resource and complex process industries.

His ever-expanding family (daughter # 2, Hannah Grace, was born in late September) is enjoying life in the west.

David Schmarr has also been industrious recently. He's submitted the first paper from his PhD study on stock discrimination of slimy mackerel using genetics, otoliths and parasites as tags. He also presented his 'end of PhD seminar' in mid-November. Amidst all this, he still had time to grow a mo (of sorts!) for Movember and maintain a blog about its evolution. David's Mo was nearly MO-mentous and MO-ving, but it sure had a most interesting MO-rphology! David's MO-managed to contribute to the vast amounts of money raised for mens health during Movember.

Vanessa Glennon has had her nose to the grindstone recently fitting in a 2-week statistics course and learning molecular genetic techniques around her flamenco dancing and attendance at a U2 gig. She managed the latter despite a nasty cold, dragging herself from bed to boogie at AAMI Stadium with Bono and the boys.

Lizzie Perkins has been teaching Vanessa the intricacies of molecular techniques in the lab, despite a few hitches that she has encountered with her own work sequencing the mitochondrial genome of capsalid *Monogenea*. Lizzie hopes to escape to the GBR for a diving trip early next year, but she may be asked to pack vials, scalpel blades and fixative with instructions to scrape the skin of all fish within easy reach for *Monogenea*!

During all of this activity, Ian and Leslie Chisholm have been keeping a low profile after their extensive travels earlier this year. They are trying to draw their activities to a close for 2006 by writing final and progress reports, contributing to papers and helping out the students. The entire Adelaide group attended a Quiz Night on Friday October 13<sup>th</sup> to raise money for the Biological Society of South Australia. Attired in suitably scary headbands (either black cats or ghosts) and equipped with pizza and plonk, the unlikely team ably assisted



# STATE NEWS

by Kate Hutson's parents, they managed to come third out of a field of 25 teams. Not bad considering there wasn't a single question about parasites and lots about other trivial trivia.

In early December, Professor Lesley Warner relocates from Rockhampton to Adelaide for her 'retirement'. Lesley has Honorary Research Associate status at the South Australian Museum and is looking forward to joining the growing ranks of retired systematists and taxonomists globally for possibly the most scientifically productive period of her career. We wish Lesley a long, healthy and prolific retirement.

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

The new facilities at ABRL, Department of Physiology are now well-and-truly open for business! It's been a busy few months settling in and many thanks go to our lab manager Jayne Lydall and research assistant extraordinaire Kemperly Dynon for their efforts in making our new premises feel like home. And we've certainly been putting all our news toys to good use - many members of the ABRL have very exciting news!

Firstly, Dr Bernd Kalinna has been very successful in obtaining support for his work on *Schistosoma mansoni* - both the NIH and NHMRC have funded his projects for the next four years! From the start of 2007, Bernd will be working at the Centre for Animal Biotechnology, University of Melbourne and running a team investigating the transduction of schistosomes. His collaborators on these projects include Paul Brindley in New Orleans and Alex Loukas and Don McManus at QIMR. We congratulate Bernd and wish him well as he moves across town.

Our students have also been doing well. Rebecca Smith has just had her PhD thesis on the molecular biology

of *F. hepatica* and *F. gigantica* passed! Well done to Bec and her supervisors, particularly David Piedrafita and Terry Spithill. Jill Pleasance has recently submitted her PhD thesis, supervised by David, entitled "*Fasciola gigantica* and *F. hepatica* infection in Indonesian Thin tail sheep: analysis of the host-parasite relationships". A result on her PhD studies is not far away, and we're sure she's done very well. Jill is continuing to work for David and Jo Kemp at ABRL on the molecular biology of *Haemonchus contortus*. Nick Robinson, our resident vet and PhD scholar, expects to submit his thesis within 6 months on immunological responses to *H. contortus* in the sheep abomasum. He is off to Louisiana in February to visit the National Primate Centre in New Orleans and the Louisiana State University Veterinary School in Baton Rouge to give, quote, "a riveting talk on my work and hopefully get a job". No doubt he'll be very successful in both endeavours.

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

Another deadline missed and a rushed attempt to catch up. The parasite control lab at La Trobe University is finishing the year looking forward to the new CRC decisions and to postgraduate scholarship applications. With projects and students in the balance the next couple of months are of critical importance so it is just as well we are all going on holiday to relieve the stress.

Steve and Jacquie are heading off to the Murray to enjoy the environment on a couple of trail bikes, while Peyman is staying here this year rather than heading back to the heat of Iran. I am off to enjoy the mirages and dust on the farm at Yeoval while Kate will probably stay cool in Melbourne.

Meantime, Annalise, who is studying parasites in the Mountain Pygmy Possum, will have to keep working to make the most of the

short active season of these alpine specialists. The only potential problems are the fires currently engulfing most of the forests around the Victorian Alps which could certainly make access more difficult!

Hopefully, the new year will bring rain, research support and parasites in that order. Otherwise, we might all have to start working on something less important like water recycling or climate change.

Merry Xmas and Happy New Year or other appropriate celebration.

## **Malaria Laboratory La Trobe University**

There have been lots of things happening in the malaria labs at La Trobe but everyone is too busy to stop and write about them. However Leann has been reading Tim Flannery's "Throwim Way Leg" and found the following interesting passage about a member of the Atbalmin tribe in the PNG highlands. "Willok would eagerly offer to help me skin and gut the Coppery Ringtails. His assistance consisted of removing the intestines and feeling excitedly along them. On detecting a small lump, he would carefully pierce the bowel wall with his fingernail and pull out a large yellow tapeworm. Next, by way of culinary preparation he would run it between his fingers to remove some of the adherent fecal matter - then he would drop the writhing parasite straight into his mouth!" We were wondering if anyone had heard of this idea of parasites as culinary delicacy and whether this practise might have had the added advantage of boosting the immune system against human tapeworms?

## **Murdoch University**

Russ Hobbs has announced that he will be retiring from Murdoch University at the end of next year. Russ is a great contributor to the ASP and to teaching in the Veterinary School. We hope that whilst Russ may be retiring from Murdoch, that he won't be retiring from parasites and he has hinted that he might like to "dabble





in some parasite taxonomy” after retirement. Russ recently represented Murdoch at the workshop discussing a proposed textbook (covered elsewhere in the newsletter) where he reports that the news of his impending retirement had not taken very long to cross the border.

Una Ryan has been very busy writing a book chapter. Hopefully by the time this newsletter goes to press, it will be off with the publisher so Una can take a well-earned breather before the onslaught of undergrad students next semester.

Caroline Jacobson presented a paper at the Australian Sheep Veterinarians sheep vet conference at Charles Sturt University (Wagga Wagga, NSW) and then proceeded on a whirlwind tour of Orange and Bourke learning about the practicalities of precision sheep management and has since started working on a new project with Kevin Bell at Murdoch University.

Simon Reid recently attended the MEEGID VIII conference (molecular epidemiology and evolutionary genetics) in Bangkok, where he dazzled a small (very) small crowd with his both his lack of understanding of genetics and the absence of molecular data!

Celia Smuts, Dobbo and Simon have been busily taxing their minds by attempting to learn the skills and principles of risk modeling using @Risk and Greg Hood's (Ag Dept. Albany) marvellous package PopTools.

Andy Thompson was an invited speaker at the 3<sup>rd</sup> Annual International Workshop on Arctic Parasitology (IWAP III) in Calgary in early November – an excellent meeting the highlight of which was seeing a youthful 85-year old Bob Rausch again after nearly 8 years. Andy travelled on to visit Terry Spithill and Roger Prichard at McGill and was honoured to discover that he was to sleep in a special bed at Terry's house, one that had been slept in by many well known parasitologists (not all at the same time) including Michael Good, Nick Smith, Marshall Lightowlers, Denise Doolan, Steve

Barker and Mark Sandeman; needless to say the sheets have not been changed!



Andy then visited John Barta at Guelph and while there caught up with Ian Barker (below) who sends his best wishes to the many colleagues he has in Australia and was happy for Andy to take a photo of his office which should give comfort to those of us who feel they are behind with their filing! Andy flew home via Bangkok for a hectic week of overlapping conferences including the 5<sup>th</sup> Seminar on Food- and Water-borne Parasitic Zoonoses (an excellent, internationally well attended meeting), the annual Joint International Tropical Medicine Meeting (that serves to bring together many international infectious disease specialists with collaborative projects in the SE Asian region) and the 8<sup>th</sup> International Meeting on Molecular



Epidemiology and Evolutionary Genetics of Infectious Diseases (MEEGID – VIII – with a diverse programme organised by Michel Tibayrenc who is enjoying a secondment to the French Embassy in Bangkok).

Tawin Inpankaewand (Win) and Charoonluk Sanglounng (Ning) from Kasetsart and Mahidol Universities in Bangkok spent August and September with the parasitology group at Murdoch working on collaborative projects on *Giardia* and *Cryptosporidium*.

David Ferguson from the University of Oxford spent a very productive week with the parasitology group at the start of his ASP Network-sponsored visit to a number of labs in Australia. While at Murdoch he worked with Annika, Andy and Hanna fixing tissues infected with *Cryptosporidium* in order to learn more about the relationship between the parasite and the host cell. While at Murdoch David gave a thought provoking seminar entitled "Is there still a role for morphology/electron microscopy in this genomic/proteomic age?"

Andy Smith has recently joined the parasitology group as an ARC Research Fellow, Andy will join Andy, Alan Lymbery, Phillip Clark, Peter Spencer, and colleagues at CALM (now the WA



# STATE NEWS

## Curtin University

Department of Environment and Conservation - DEC) Keith Morris and Adrian Wayne on a new ARC funded project that will investigate the nature, diversity and potential impact of infectious agents in Western Australian threatened mammals. Andy Smith has postgraduate degrees from Oxford and Liverpool with expertise in molecular ecology and modelling vector-borne protozoan infections of small mammals. Andy will play a major role in supervising new PhD student Halina Burmej whose project will encompass a comprehensive study of the ectoparasite fauna of several threatened marsupials throughout Western Australia. The start of this project coincides with an investigation that has been ongoing since early 2006 to find the cause of declines in the numbers of Woylies, or brushtailed bettong, in the south west of WA. Dramatic reductions in Woylie numbers has lead to an urgency to discover the cause of the decline. Andy Thompson is the coordinator of the Woylie Disease Reference Council that has been established by DEC, to work with staff from the School of Veterinary and Biomedical Sciences at Murdoch and Perth Zoo to investigate what role disease may have in the decline of the woylie (Juvenile pictured below).

My first perk of being the WA ASP rep was to be invited to visit the parasitology team at Curtin University's Schools of Pharmacy and Biomedical Science. The visit was organised by Associate Professor Kevin Batty (School of Pharmacy). The team presented some of the results from their malarial drug studies over the last year or so, some of which was done in collaboration with Professors Ken Ilett and Tim Davis at UWA.

Associate Professor Batty explained the work done by the Curtin Malarial Group to develop a murine malarial model to study the delayed-effects of antimalarial drugs that might not be detected with other murine models. The results of two studies using this model were presented at a recent pharmacy congress.

The first of these studies used the murine model to study the effects of different dosage regimes and showed that multiple doses of doxycycline were more effective than a single treatment. The multiple doxycycline dosage regime had a delayed effect in reducing parasitaemia that became apparent at about the same time that the effects of dihydroartemisinin started to wane in infected mice, showing that combination of the two treatments provided effective antimalarial treatment.

The second study presented at the pharmacy congress used the murine model to study pharmacokinetic and pharmacodynamic properties of piperazine and found that the highest dosage tested resulted in long-term survival of infected mice.

PhD student Briony Moore presented some of her findings looking at longer-term survival of mice following treatment. This work used the murine model to study the mice over a longer time period (60 days) and then blood was collected and passaged into naïve mice. Briony has also been conducting perinatal and neonatal pre-clinical safety evaluations of antimalarial drugs in pregnant mice and monitoring the treated dams, their pups and the subsequent generation. This work involved collection of a large number of samples for pharmacokinetic evaluation, haematology, biochemistry and histology which should keep Briony very busy in the last year of her PhD. The team is also looking at possibly using larger animal models and *in vitro* studies to see if the drug will cross the placental barrier or into milk. The Curtin team has gained a NHRMC grant to conduct these pre-clinical trials and if all goes well, this work could extend to clinical trials, possibly in PNG.

Dr Andrew Crowe explained some of his very interesting work using a human gastrointestinal cell line sub clone (Caco-2) as an *in vitro* model for studying the net flow direction of molecules across the intestine and how the model can be used for drug absorption studies. The Caco-2 cell line is a good model for studying drug transport in the small intestine because the cells form a tightly-knit monolayer and the cells differentiate well to exhibit enterocyte properties. A paper describing research using this model to study the role of permeability (P) glycoprotein in the absorption of novel antimalarial drugs was published in *Antimicrobial Agents and Chemotherapy* in October this year.

Dr Paul Murray outlined his work looking at a sister compound to piperazine. Dr Murray is interested in investigating the pro-drugs of this







Pictured:  
the Curtin team

of this compound to modify the half-life and other properties such as solubility. At the moment his team is working to synthesise the molecules and hopes to be moving on to the pro-drug and comparative studies early next year. Dr Murray's team is also looking at investigating cryptolepine derivatives that are alkaloids with antimalarial properties. The team is in the process of isolating these novel compounds with a view to further developing and testing the compounds as antimalarials.

Dr Alexandra Whittaker then took us all on a tour of the new Animal House facilities being built at Curtin University. The new animal house is currently being completed with the first animals expected to arrive early next year. The facility is state-of-the-art with PC2 and PC3 laboratories and housing for small lab animals. ASP members visiting Perth should consider arranging to visit this very impressive new facility. Dr Whittaker will be managing the new facility and has experience working as a veterinarian in animal laboratories in the United Kingdom.

Thank-you to Associate Professor Batty, Dr Jeffery Jago, Dr Andrew Crowe, Dr Paul Murray and Briony Moore for taking the time to present clear summaries of their work for the benefit of the ASP. Hopefully this will mark the start of more collaboration between Curtin and Murdoch Universities.

Best wishes to Verity Stirling who is leaving her role as research assistant at the Curtin Malarial Group to study medicine at Notre Dame.

#### **Department of Agriculture and Food**

The past few months have been busy for the Department of Agriculture and Food WA parasite team, as with WA experiencing the driest year on record, many sheep are in much reduced body condition and the increased effects of nematodes have resulted in a large advisory load.

Still, Brown Besier and Rob Woodgate found time to attend a very well-organised and well-attended meeting of the Australian Sheep Veterinarians – the inaugural annual stand-alone sheep vet conference, at Charles Sturt university at Wagga Wagga. Apart from enjoying a good slice of field-based Parasitology at the meeting, it was good to see the superb facilities of the new vet school, and especially to note that with Nick Sangster at the helm it is set to become a focus for sheep parasite research.

At the Albany laboratory, Rob has been busy keeping up the Worm-Boss sheep worm management website, and finalizing 3 years of field observations of the WA sites of the national Integrated Parasite

Management-sheep research (and thinking of the mountain of analyses it generated ...). Brown also has field work running, notably Sheep CRC projects investigating the “targeted treatment” concept, and one of a series of experiments at various institutes, validating the prototype dipstick test for haemonchosis.

An invitation to speak at the NZ Parasitology Society annual meeting in Palmerston North in October was a good opportunity for an update on Kiwi livestock Parasitology. News is that the well-known Wallaceville Research Centre is to close, and research consolidated at the new Hopkirk Institute on the Massey university campus Palmerston North, with Dave Leathwick, now re-joined by Ian Sutherland, heading up Parasitology.

The co-location with Bill Pomroy's Parasitology group at the Massey veterinary school will be a real strength, although the move is tough on people presently at Wallaceville.

At the South Perth Animal Health Laboratories, Dieter Palmer continues work on an ELISA to detect faecal worm egg antigens continues, with Eva Mowe recently appointed as a research assistant on the project. All in all, we've had a big year, and if the fervently-wished for new Sheep CRC eventuates, it won't be any less busy in the next few years!





# STATE NEWS

## **Intrepid WA Traveller Report – Congo Adventure Caroline Wielinga Murdoch University**

We (Andrew & I) have just come back from central Africa. We've always wanted to go to the Congo (D.R. Congo), but every time we're planning a trip they're either at war with themselves or their neighbours or both. This time they'd just signed a peace agreement and were holding their first election in several decades. We figured it was now or never - we didn't want to wait until after the election - it may start another civil war. So without knowing what might happen we booked a return flight to Uganda – a relatively stable neighbouring country. This way if things went wrong beforehand we had the option of travelling elsewhere.

It seemed to be going OK, so we flew to Uganda, sought local information about the Congo – and eventually settled on a Congolese trade-lady's northern route through to Kisangani, the capital of the Oriental province of Congo, on the Congo River at the edge of the Congo Basin. The Northern route is Kasindi-Beni-Mambasa-Nia Nia-Bafwasende-Kisangani. No worries. We took a bus to the border and then had to spend a day discussing price options for a Congo "visa" with a very slick Congo official. We left the next town without a visa, the hassle of Congo immigration is world famous – you essentially need a visa 'gift' in every town and province border crossing - all you need is money, the more officials you see, the more money you need. Except without banks in Congo, we had to carry it all on us. So it was best to travel fast, although tiring it is less hassle if you see less officials. With no roads in Congo either (too much

mud, not enough concrete) we hired taxi motorcycles – fastest things in the forest at 20-40km/hr (as opposed to lorries, bicycles or walking). The local boys were always best – they know the roads, are usually great riders and know who to pay and how much. Of course as this is Belgian Congo they only speak French and in the east Swahili – both of which we don't - so lots of poor travel phrases and sign language was the order of the day.

We made it through Ituri, the northern district of conflict joining southern Sudan/CAR/northern Uganda – but only the far south/western part, none the less we felt a lot safer when we reached Mambasa and the Okapi Fauna Reserve. We were the first tourists to come through for 18 months and so the guards had to find the tourist officer who hadn't been turning up much lately. He took us out a couple of times but with so few tourists there wasn't many 'organised activities'.





They have a captive breeding program for the Okapi (See right) – a relative of the giraffe. We then walked to the next town because we couldn't find a second motorcycle taxi to carry one on each. By the next day we didn't care about sharing and left half our gear behind so we could all fit on one. All we needed was money and malaria pills, so we dumped our food, spare clothes and half the sleeping gear.

A few villages and a very sore ride later we picked up another bike and it was easy sailing from there to Kisan-gani (after several days on motorcycles and several bribes later). From there we flew to Goma, back in the highlands. We climbed and camped atop Nyiragongo Volcano, which had the scariest toilet I've ever seen – some boards over a steaming hole surrounded by steaming fissures. The view of red tinged clouds and steam at night was pretty cool too, pity we didn't have enough food, clothes and bedding left to do it in style. After Goma we went to Rwanda and their montane Nyungwe Forest NP for Chimp trekking before heading back to Uganda where I had a traffic incident and got to see a third world medical system in action, complete with generator powered X-ray machines!

Pictures: Okapi above, Caroline on road, getting about and Salante kids (left).



**From your WA rep**

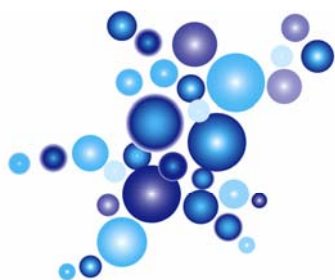
Thank-you to everyone for taking the time to contribute to the newsletter and other ASP business, especially with your busy schedules. Russ Hobbs wins the prize for “consistently being first to contribute”. Thank-you also for being patient with your new state rep after the very competent Rebecca deserted us for a job in sunny Queensland earlier this year.

Wishing you all the best for the New Year and 2007.





# Positions available



**EBCRC**

## PhD Scholarship at Macquarie University 2007

A PhD scholarship funded by Environmental Biotechnology CRC is available in the laboratory of Dr Belinda Ferrari within the Department of Chemistry and Biomolecular Sciences at Macquarie University, Sydney.

The research project is focused on proteomic characterisation of potential protein targets which have been identified from the differential display of proteins of *Cryptosporidium* species of varied pathogenicity. The aim of the project is to evaluate which proteins or enzymes will be suitable for diagnostic development for *Cryptosporidium* of significance to public health. Additionally, characterisation of proteins present in human pathogenic species will provide important insight into the disease and its control as no effective therapy for cryptosporidiosis exists.

We will provide a stipend of \$A 25,000 per year tax-free for 3.5 years (fees are also included but only for New Zealand and Australian citizens and permanent residents, otherwise international fees apply). Should you secure an Australian Postgraduate Award (APA), we will supplement this with up to an extra \$A 7,000 Allowances in addition to the scholarship include laboratory expenses, personal development and education along with local and overseas conference travel and assistance with thesis costs.

We welcome all enquiries from students whose Honours or Masters Degrees qualify them for admission to PhD study and who are interested in engaging in first class fundamental and applied research that will benefit the environment. Background in biochemistry is essential and microbiology is desirable.

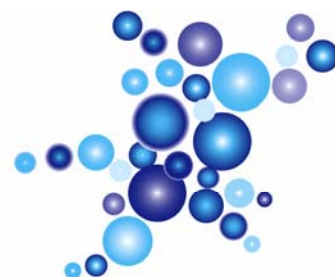
**CONTACT Dr Belinda Ferrari**

Phone: +612 9850 9252

[bferrari@cbms.mq.edu.au](mailto:bferrari@cbms.mq.edu.au)

or Professor Peter Bergquist

[peter.bergquist@mq.edu.au](mailto:peter.bergquist@mq.edu.au)



**EBCRC**



# CONFERENCES

## 2007 ASP & ARC/NHMRC Research Network for Parasitology Annual Conference

8th to 11th July

Chifley on Northbourne Hotel, Canberra

The 2007 conference will take place in Canberra, from July 8 to July 11, 2007, inclusive. The program will include an outstanding mix of quality international and Australian scientists and includes five invited speaker themes as follows:

- Functional Genomics
- Evolutionary Biology of Parasites
- Parasites in Wildlife and Conservation Biology
- Immunology, Immunomodulation and Vaccines
- Drug Targets, Drugs and Drug Resistance in Tropical Parasites (co-sponsored by the Royal Society of Tropical Medicine and Hygiene as part of its Centenary Year Celebrations)

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 the evening of Sunday 8<sup>th</sup>, the scientific programme starting Monday (9<sup>th</sup>) morning, and will culminate with the conference dinner on Wednesday (11<sup>th</sup>) evening. There will be plenty of opportunities for contributed talks and posters on any and every topic parasitological.

Registration fees will again be kept very low and will include morning and afternoon teas, lunches, poster session drinks and dinners at the conference. 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 of about 6 months before the conference – so download an ASP membership application form now from <http://www.parasite.org.au/member.htm>.

Registration and Abstract Submission are expected to open in mid-late January 2007. The conference website will be available shortly for all information, including registration deadlines and forms, please visit the Network website: [www.parasite.org.au/arcnet/](http://www.parasite.org.au/arcnet/)





# CONFERENCES

## II International *Giardia* and *Cryptosporidium* Conference

Centro Cultural Universitario  
Universidad Michoacana de San Nicolás de Hidalgo  
Morelia-Michoacán, México  
May 13 -18 2007

### CALL FOR PAPERS

Abstract submission Deadline: extended

**JANUARY 15th, 2007**

[www.cinvestav.mx/giardiacrypto/](http://www.cinvestav.mx/giardiacrypto/)

### Conference Secretariat

Centro de Investigación y  
de Estudios Avanzados del IPN  
Av. Instituto Politécnico Nacional 2508. Col. San Pedro Zacatenco  
C.P. 07360. México, D.F.  
Fax: 52 55 50 61 33 92  
e-mail: [giardiacrypto07@cinvestav.mx](mailto:giardiacrypto07@cinvestav.mx)



## IX<sup>th</sup> INTERNATIONAL SYMPOSIUM ON ECTOPARASITES OF PETS

JUNE 10-14, 2007  
LEXINGTON, KY

A combined meeting of the International Symposium on Ectoparasites of Pets and the Livestock Insect Workers Conference will be held in Lexington, Kentucky (USA), June 10-14, 2007.

This meeting offers a unique opportunity for veterinarians, entomologists, clinicians, researchers, industry representatives, and others interested in arthropods affecting companion animals (dogs, cats, horses, etc.) and domestic animals (beef, dairy, poultry, sheep, etc.). Research presentations will span basic biology, ecology, host-parasite interactions, disease transmission, zoonoses, medications, insecticides, etc.

Participants include veterinarians (dermatologists, parasitologists, clinicians, etc.), epidemiologists, entomologists, and industry supporters who are involved in research involving pet ectoparasites such as fleas, ticks, lice, mosquitoes, etc., as well as the pathogens they transmit.

You are invited to submit a talk (12-minute length) for presentation at the meeting.

Title and Abstract Submission Deadline      April 15, 2007

To make a submission and for further information, go to the ISEP/LIWC conference website at [http://www.pestmanagement.info/ISEP\\_LIWC/](http://www.pestmanagement.info/ISEP_LIWC/)

We look forward to seeing you in Lexington!



# Centenary Conference of the Royal Society of Tropical Medicine and Hygiene

ONE HUNDRED YEARS OF TROPICAL MEDICINE  
Meeting the Millennium Development Goals  
Queen Elizabeth II Conference Centre, London, UK  
13-15 September 2007

## CALL FOR PAPERS

Abstract submission deadline: 9 February 2007

The centenary meeting of the Royal Society of Tropical Medicine and Hygiene will describe ways in which scientists working in many different disciplines can contribute to alleviation of poverty and ill-health in the developing world in line with the Millennium Development Goals. The meeting will focus on the most vulnerable groups – children and pregnant women and on major infections. Environmental and social issues will also be addressed.

Topics, on which abstracts for oral and poster presentation are currently invited, will include:

- Reducing child mortality
- Improving maternal health
- Combating HIV/AIDS/TB
- Combating malaria
- Tropical medicine and the environment
- Control of major parasitic diseases
- Challenges of tropical medicine, science, politics and economics

Abstracts should be submitted at [www.rstmh.elsevier.com](http://www.rstmh.elsevier.com) by 9 February 2007.

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## THE ORGANISERS

The Conference is organised by the Royal Society of Tropical Medicine & Hygiene with administrative support from Elsevier.

### Scientific Committee

Professor Brian M. Greenwood (Chair), *London School of Hygiene and Tropical Medicine, UK*

Professor Peter L. Chiodini, *Hospital for Tropical Diseases, UK*

Professor Janet Hemingway, *Liverpool School of Tropical Medicine, UK*

Dr. R. John Horton, *Royal Society of Tropical Medicine and Hygiene, UK*

Professor Geoffrey Pasvol, *Imperial College, UK*

Dr. J. Russell Stothard, *Natural History Museum, UK*

Professor Andrew M. Tomkins, *Institute of Child Health, UK*

Dr. Stephen G. Wright, *Hospital for Tropical Diseases, UK*

For further details and to submit an abstract please visit [www.rstmh.elsevier.com](http://www.rstmh.elsevier.com) or contact [n.woods@elsevier.com](mailto:n.woods@elsevier.com)





## 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 President. 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

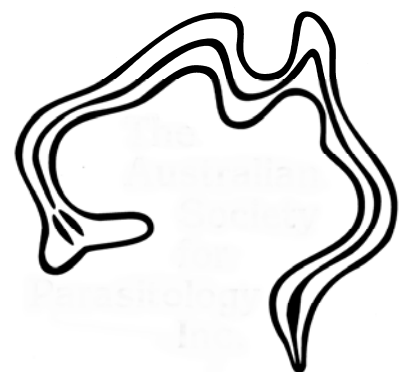
These awards are specifically designed to assist postgraduate students travel internationally to conduct research and/or to present their research at international conferences. Applicants must be members of the ASP Inc. of at least 6 months standing and enrolled in a postgraduate degree at an Australian university.

Four scholarships will be awarded each year and applications will be considered in two rounds with closing dates in June and

December of the preceding year. Each scholarship will be up to the value of, but not exceeding, \$A2000. For research-based proposals, applicants should nominate the international laboratory they intend to visit, the purpose of the visit and the time frame. A short, abstract-length (approximately 250 words) proposal of the techniques and skills to be gained should be attached.

For travel that primarily involves attendance at a conference, applicants must nominate the conference, supply an abstract and justify their attendance at a recognised international conference preferably though not exclusively held outside of the Australasian region.

The award will only be made once proof is received of acceptance of the abstract by the conference organisers. If the student does not attend the conference the ASP funds must be returned to the Society. On return from the Conference a short report must be written to the Council detailing the student's experiences. Applicants should apply to the current ASP Secretary giving details of the conference, their research and supervisor's support plus an abbreviated c.v. and conference abstract, as outlined on the accompanying application form. The application must not number more than 6 pages including the c.v. and abstract. Applications must be received by the next due dates of June 30th or December 31<sup>st</sup> each year.



---

# Application form for JD SMYTH Travel Award

Name: .....

Address: .....

.....

Phone: ..... Fax: .....

Email: .....

University: .....

Enrolled Degree: .....

### Supervisor's Certification

I hereby affirm that the above-named person is a bona fide postgraduate student under my supervision.

Signed: ..... Date: .....

---

### Laboratory Details (for research applications)

Laboratory to be visited .....

Address .....

.....

Purpose of Visit .....

.....

.....

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### Conference Details (for applications to attend conferences)

Conference Title: .....

Venue: .....

Conference Address: .....

Title of Abstract (*Please attach a copy of the abstract*): .....

.....

.....

Author(s) .....

Awards will only be paid on receipt of proof that the abstract has been accepted.

---

**For all applications: Attach statement justifying attendance, budget (include all other support), brief curriculum vitae  
[application not to exceed 6 pages]**



**THE AUSTRALIAN SOCIETY FOR PARASITOLOGY INC**

**Secretariat:** ASP Inc c/- RGSQ,  
237 Milton Road, Milton QLD 4064  
Fax: (07) 3367 1011 Email: rgsq@gil.com.au  
**APPLICATION FOR MEMBERSHIP**  
**Tax Invoice ABN: 65 979 686 445**

**Surname:** ..... **Given name(s):** ..... **Title:** .....  
**Email:** .....

**Postal address:** .....  
.....  
.....  
.....

**Telephone:** ..... **Fax:** .....

**Signature:** ..... **Date:** .....

**\*Proposed by (Name):** ..... **(Signature):** .....

**\*Seconded by (Name):** ..... **(Signature):** .....

\*The Society’s Constitution requires that the Applicant be known personally to at least one of the sponsors for membership. Both the proposer and seconder must be members of the Society.

This application must be accompanied by payment of one year’s subscription in Australian dollars: \$80 for full members (Inc GST), \$20 for student members (Inc GST)†, \$500 (Inc GST) for sustaining members.

I enclose a cheque or money order for A\$ payable to the “Australian Society for Parasitology Inc.”

† Applicants for **student membership** must have the following statement signed.  
Registered Higher Degree: ..... Institution: .....  
Signature of Head of Department: .....

OR please debit my (tick one)

Visa      Bankcard      Mastercard

Card number:    — — — —    — — — —    — — — —    — — — —

Expiry date:    — — / — —

Cardholder name: \_\_\_\_\_

Cardholder signature: \_\_\_\_\_

Applications for membership are considered by a Committee of the ASP and applicants duly notified.

Amount received ..... **Office use only**  
Date elected: .....  
Elected by: .....







### 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:



.....  
.....  
.....



Tel: .....  
Fax: .....  
Email: .....



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# **2007 ASP & ARC/NHMRC Research Network for Parasitology**

## **Annual Conference**

**8th to 11th July**

**Chifley on Northbourne Hotel, Canberra**

Invited speaker theme topics:

- Functional Genomics
- Evolutionary Biology of Parasites
- Parasites in Wildlife and Conservation Biology
- Immunology, Immunomodulation and Vaccines
- Drug Targets, Drugs and Drug Resistance in Tropical Parasites (co-sponsored by the Royal Society of Tropical Medicine and Hygiene as part of its Centenary Year Celebrations)

