ARC/NHMRC RESEARCH NETWORK FOR
PARASITOLOGY

NEWSLETTER

Issue No. 20 June 2008

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We gratefully acknowledge the support of our Network Newsletter Sponsor, BioAustralis.

In this issue...

Dear Network Participant,

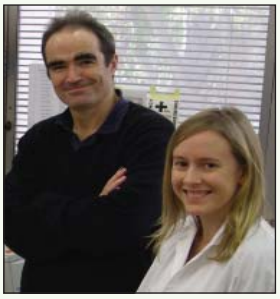
Parasitology is thriving in Australia. What is the evidence for this? Well, in this issue of the Newsletter you will read about awards and recognition to several of our membership, as well as continued success in winning ARC grants. Add to this the fact that we are now getting far more high quality submissions to our annual conference than we can possibly fit in to the oral contribution programme, and you have a very clear indication of a discipline enjoying the best of health. I congratulate all the award and grant winners featured in this issue of the Newsletter and, also, congratulate the Glenelg2008 Conference Organising Committee for putting together an outstanding programme. (See inside for some important information about the meeting).

Also, featured in this issue is a fascinating profile of the growing parasitology team at Charles Sturt University.

As always, please don't hesitate to provide feedback and supply us with news stories, grant successes, job ads, notices of upcoming events etc etc.

In the meantime, best wishes, Nick
(Nick Smith, Convenor, ARC/NHMRC Research Network for Parasitology; nick.smith@uts.edu.au)

Congratulations



Kiaran Kirk and Adele Lehane

Kiaran Kirk awarded the ANU Vice-Chancellor's award

Prof. Kiaran Kirk, in the School of Biochemistry and Molecular Biology at the Australian National University has been awarded the ANU Vice-Chancellor's award for excellence in research supervision. The University makes just one such award each year. Kiaran is a most deserving winner; he is an outstanding and innovative mentor to a number of students and early career researchers.

Adele Lehane wins the Australian Society for Biochemistry and Molecular Biology's Mannatech Award and the ASBMB's President's Award Fellowship

Adele Lehane, a PhD student at the ANU and the ACT representative on the ASP council has been awarded the Australian Society for Biochemistry and Molecular Biology's Mannatech Award in Modern Metabolic Biochemistry. The Award is made for the most outstanding metabolic biochemistry publication (published in the preceding year) by a PhD student or researcher with no more than 7 years post doctoral experience. The paper for which the award has been made is "Feedback inhibition of pantothenate kinase regulates pantothenol uptake by the malaria parasite" by Adele Lehane, Rosa Marchetti, Christina Spry, Don van Schalkwyk, Rongwei Teng, Kiaran Kirk and Kevin Saliba [J.Biol. Chem., 282, 25395-405].

Adele has also been awarded the ASBMB's President's Award Fellowship. The ASBMB Fellowships are awarded to early career researchers in recognition of their outstanding work in an area of biochemistry or molecular biology, and provide funds to assist the recipient to attend an overseas conference. An outstanding ASBMB Fellowship applicant may receive the President's Award.

Adele will use the Fellowship to travel to Italy to attend a Gordon Conference on Membrane Transport Proteins.

NIH Grant Winners **John Dalton (UTS), Don Gardiner (QIMR) , Jolanta Grembecka (UV, USA) and Katharine Trenholme (QIMR)** who were awarded a second NIH RO3 grant (PAR-06-545, "Solicitation of Assays for High Throughput Screening (HTS) in the Molecular Libraries Screening". This grant entitled 'Identification of Inhibitors of the Plasmodium falciparum M18 Metalloprotease' will will give the team access to unique chemical libraries to search for novel anti-malarials directed against the aspartyl aminopeptidase (M18). The enzyme is putatively involved in the specific removal Asp and Glu residues from peptides derived from haemoglobin digestion, or other unknown sources.

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Robin Gasser made a 2008 Australian Fulbright Senior Scholar

Professor Robin Gasser, of the University of Melbourne, has been made a 2008 Australian Fulbright Senior Scholar. Robin will conduct research on "parasite genomics, working towards developing novel intervention strategies for destructive parasites using cutting-edge advances in genomics and bioinformatics at Caltech, Washington University and the National Human Genome Research Institute."

The Fulbright Program http://www.fulbright.com.au is the largest and one of the most prestigious educational scholarship programs in the world. It operates between the United States and over 150 countries worldwide. Established in Australia in 1949 through a binational treaty between the Australian and U.S. Governments, the program has supported over 5,000 scholarships.

Simon Reid seconded to Indonesia

Simon Reid is going to be on secondment from Murdoch University for the next couple of years as "Resident Veterinary Coordinator" based in Makassar, Sulawesi in Indonesia. The position is a secondment to CSIRO AAHL in Geelong and is part of the AusAID commitment to the FAO coordinated Indonesian bird flu control program, which is a multi donor funded program.

Conference News

Full details about the 2008 ASP & Network Conference in Glenelg can be found at www.parasite.org.au/arcnet/conference

Registered conference delegates can now view the full conference program just log on to conftool http://www.conftool.net/parasitology2008

If you submitted an abstract for the conference you should have heard from Lisa about whether it has been accepted as a contributed paper or a poster and what session it has been assigned. Please contact Lisa (lisa.jones@uts.edu.au) if you have any queries.

Information about oral presentations
For authors presenting a paper in a contributed paper session please note that each **presentation** will be **15 minutes** long, **including questions**.

For contributed paper authors who have been assigned to the Sustainable Worm Control in Grazing Livestock session Wednesday 9 July from 1030am until 12 noon your **presentation** should be **10 minutes** long, **including questions**.

For authors who have been assigned to the Oral Poster "Speed Dating" session Monday 7 July from 5pm until 6pm your presentation should be just **2 minutes** long, with **no questions and just one powerpoint slide**.

Audiovisual aids for oral presentations will include computers and data projectors set up to support Powerpoint presentations only. You can submit your powerpoint presentations by email prior to 29 June 2007 to Wendy (wendy.relf@uts.edu.au). Speakers should also bring electronic copies of their presentation to the conference on CD or memory (USB) stick.

Information about posters
For authors submitting posters and who have been assigned to the Oral Poster session, posters must be A0 size (841 mm wide by 1189 mm high) with Velcro hooks around the back edges. Please bring enough velcro to stick your poster to the poster board.

There will be two poster viewing sessions where stand-up dinner and drinks will be served.

Early Career Researchers and Students don't forget to register for the Early Career Researcher Workshop at Glenelg2008. The workshop will include presentations and discussion by some leading Network researchers on topics such as: laboratory leadership; time and project management; getting published; establishing and increasing profile; setting up collaborations; getting funded. To attend this event please confirm your booking with Wendy Relf by email (Wendy.Relf@uts.edu.au) or by telephone 02 95144006 by 13 June 2008.

To be considered for the ARC/NHMRC Research Network for an Parasitology **Early Career Researcher prize** please contact Wendy (Wendy.Relf@uts.edu.au) 02 95144006 by 13 June 2008. The prizes will be for the best conference presentations (whether poster or oral presentations) by postdoctoral researchers (currently based in Australian institutions) who are within 10 years of receipt of their PhD. To be eligible for consideration, candidates must be in non-tenured positions and be the first author and presenter of a talk or poster at the annual conference. The prizes will be in the form of travel grants (valued up to $4000-5000) to attend, and present at, the annual meetings of one of our sister networks in Europe, Canada or Southeast Asia.

The registration desk will open on Sunday afternoon (from 2pm) on the Conference Room Level 1 of The Stamford Grand Hotel. This year we will be providing environmentally friendly calico conference bags that we hope you will use for your grocery shopping for years to come! A copy of the Conference Proceedings book of abstracts will also be provided. A reminder that we won't be supplying pens, stationery or velcro for posters, so please make sure you bring these along to the conference.

Conference dinner and special meal requirements
Please let Wendy know (wendy.relf@uts.edu.au) if you have any **special meal requirements** for this conference. This year the conference dinner will be held at Constellation Wine Australia, Reynella in McLaren Vale and is proudly sponsored by Schering Plough and the ARC/NHMRC Research Network for Parasitology. Please let Wendy (Wendy.Relf@uts.edu.au) know if you are not able to attend the conference dinner so that we can confirm numbers with the restaurant prior to the conference.

A special feature of this year's conference will be that there will be the opportunity for interest groups to hold evening workshops in some of the smaller meeting rooms available at The Stamford Grand. Please contact Wendy Relf (Wendy.Relf@uts.edu.au) and Lisa Jones (Lisa.Jones@uts.edu.au) by June 13, at the latest, if you would like to stage such an event with details about which evening (Monday or Tuesday) you would prefer, and how many people will be involved.

One such interest group meeting is already planned. **A workshop on Aquatic Parasitology will be held from 7:30-9:30pm on Tuesday July 8.** The workshop is designed to review current strengths and weaknesses of Australia's aquatic parasitology research effort, map possible future directions and priority foci for the discipline, and discuss collaborative funding opportunities. If you would like to participate in this workshop, please contact Associate Professor Ian Whittington (whittington.ian@saugov.sa.gov.au) as soon as possible.

Grant Winners

ARC Linkage Grant Winners

Congratulations to the following Network scientists on their success in the recent ARC Linkage round, winning a total of almost $1 million:

Prof. Els Meeusen *(Monash University) for "Characterisation and development of adjuvants for new generation veterinary and human vaccines";*

A/Prof P Batterham *(The University of Melbourne) and Hatchtech Pty Ltd for "Identification of the targets of a novel metalloproteinase inhibitor used for the treatment of human head lice";*

A/Prof Barbara Nowak, Dr J Carson and Prof B Koop *(University of Tasmania) for "Improving vaccine performance through understanding host pathogen interaction in yersiniosis."*

Congratulations to you all!

Network Researcher Exchange, Training and Travel Awards

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

Catherine Covacin, Murdoch University, to fund a Researcher Exchange to the Queensland Museum to visit Matthew Shaw, Dr Claudio Bandi's lab at Università degli Studi di Milano, and Prof. Serap Aksoy's lab at Yale University.

Leann Tilley, La Trobe University, Melbourne to fund a Researcher Exchange for the visit of Shelia Akinyi from the laboratory of Assoc Prof Mary Galinski, Emory University, Atlanta, USA.

Magda Ellis, QIMR, Brisbane, to fund a Researcher Exchange to Yueyang and Nanchang to conduct research on immunological and genetic aspects of schistosomiasis in China.

Mieke Burger, The University of Queensland, to fund a Researcher Exchange to visit Dr Michael Kent's lab at Oregon State University.

Suzannah Hetherington, BAMBI, ANU, to fund a Researcher Exchange with the INSERM in Strasbourg, France, to perform a series of experiment on *Caenorhabditis elegans* under the supervision of Prof. Michel Labouesse.

Phillip Fromm, James Cook University, to fund a four week researcher visit to the laboratory of Prof Christian Bogdan, Institute of Medical Microbiology, Immunology and Hygiene, Freidrich-Alexander University, Erlangen, Germany to learn methods to measure antileishmanial activities of macrophages to *L.major.*

Remaining application dates in 2008

The Network Researcher Exchange Training and Travel Award scheme continues to prove to be an outstanding success and young researchers are particularly encouraged to apply for assistance. In 2008, there will be three more application rounds with the following deadlines:

Friday July 25

Friday September 26

Friday November 28

Applications will be assessed by a specific assessment committee and applicants will be advised of the outcome, where possible, within 4 weeks. Guidelines for the Network Researcher Exchange, Training and Travel Awards can be found at www.parasite.org.au/arcnet/funding

Network Events

The ASP & ARC/NHMRC Research Network for Parasitology present

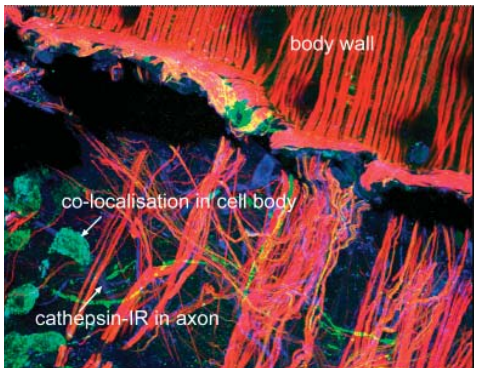
"Parasites in Focus" photography exhibition

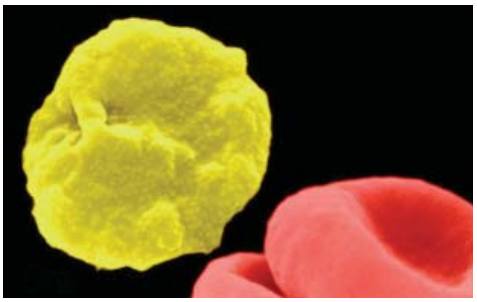
Twenty-six superb photographic prints showing the amazing microscopic world of the parasite.

South Australian Museum
North Terrace
Adelaide 5000

4 June 2008 to 20 July 2008

For more information visit
www.samuseum.sa.gov.au





The ASP and the Network are co-sponsoring symposia at the Australian Health and Medical Research conference at the Brisbane Convention Centre, November 16 – 21 2008

http://www.ahmrcongress.org.au

The invited speakers sponsored by the ASP and the Network are:

- Charles King, USA
- Giovanna Raso, QIMR
- Ian Riley, UQ
- Scott O'Neill, UQ,
- Malcolm McConville, University of Melbourne
- Andreas Hofmann, Griffith University
- Tina Skinner-Adams, QIMR

Other societies are also sponsoring speakers with parasitological interests, so there will be a major focus on parasites of medical importance at the congress.

Registration and abstract submission is now open for the 4th AHMRC.

Deadlines

Abstracts
Oral presentation submission deadline is Friday 15th August, 2008

Poster Only presentation submission deadline is Friday 19th September, 2008

Registrations
Deadline for Early Bird Registration is Friday 15th August, 2008

Plenary Speakers

The international plenary speakers are:
Elaine Fuchs (Rockefeller University, USA), Michael Karin (University of California, USA), Josef Penninger (IMBA, Austria), Stephen Baylin (Johns Hopkins University, USA) and Roger Tsien (University of California, USA).

In addition to the five outstanding plenary speakers, we have over 50 international speakers confirmed. Program details for each hosting organisation are available as becoming available so please click on their logos for more specific information.

Many of the societies are accepting abstracts and each group will be nominating one person for each of the AHMRC "Best of the Best" poster awards sponsored by Merck Sharp & Dohme, and the CASS Foundation.

This meeting represents a fantastic opportunity for Australasian researchers, particularly students, to attend an international quality meeting at low cost.

We welcome and encourage you all to attend and actively participate in this meeting that happens only every second year.

Network Mentorship Scheme

Early career researchers are encouraged to apply to the Network Convenor (nick.smith@uts.edu.au), in strict confidence, for funding to participate in the Network Mentorship Scheme. The scheme allows young investigators to be paired with experienced, successful researchers to discuss, plan, prioritise and set targets for their career. Typically, the early career researcher will fly to the institute of a senior parasitologist and spend a day there. Arrangements for professional development and progress to be reviewed by the pair annually can also be arranged. Importantly, mentors need not be from an individual's home institution but can be drawn from across the Network. The scheme has proved very valuable for several young researchers and their mentors already.

To apply, simply write to Nick with a brief outline of your research interests and aspirations. You can also indicate a preferred mentor or ask Nick for advice on whom amongst the Network participants may be most suitable.

Network IT Initiative

The Network IT Initiative continues in 2008 and Network Participants are encouraged to contact its chair, Ross Coppel of the Victorian Bioinformatics Consortium at Monash University, to explore any and all their bioinformatic needs including:

- Microarray analysis/storage
- Sequence analysis/storage
- Comparative genomics
- Custom software development
- Online project collaboration
- Data visualization
- Computer hardware selection

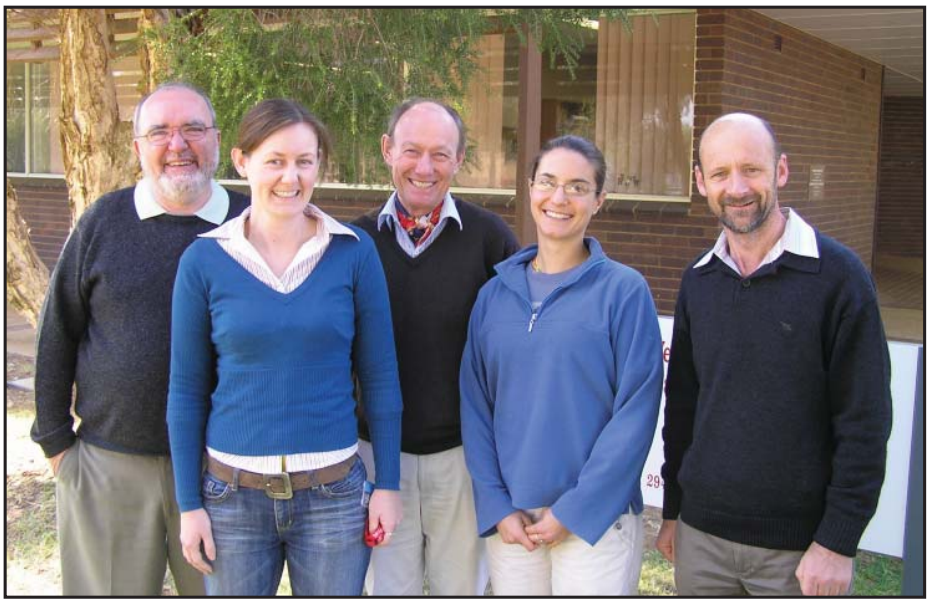
So, don't hesitate to contact Ross to explore how he and his team can assist you:

http://www.vicbioinformatics.com/parasitology.shtml

Email
ross.coppel@med.monash.edu.au
torsten.seeman@med.monash.edu.au

Profile

Charles Sturt University, Wagga Wagga



Terry Spithill, Janelle Wright, David Jenkins, Tiggy Grillo, and Nick Sangster

In 2006 Lisa interviewed Professor Nick Sangster after he was awarded an ASP Fellowship and had recently moved to Charles Sturt University (CSU), Wagga Wagga, to head up Pathobiology at the new veterinary science school and a new research team (http://www.parasite.org.au/arcnet/news/newsletters/Newsletter_101106.pdf)

Since then we've seen a lot of new parasitologists moving to Wagga Wagga to work with Nick and so Lisa was sent off to investigate…

Professor Nick Sangster

Nick tell us about your research team at CSU and your research and teaching aims?

"Our research team started small and has been growing steadily. The vet school is new at Wagga Wagga, as is the research building. We've started working with parasitologists and epidemiologists in animal health, species specialists (cattle, sheep and equine fields) and have established DPI links."

"Our research team is comprised of mainly helminthologists who are interested in the diseases of grazing animals, developing new diagnostic tests, applying our research so we can deliver back to the farmers."

How has your own research developed since moving to Wagga?

"Abdulla and I work on equine parasites and it's been a good summer season for worms so we've been very busy. Studying equine parasites has been a bit of a shift for me - there are lots of worms that are surviving despite the drought."

What new developments and collaborations are taking place that we should know about?

"Dave Jenkins is working with the DPI looking at abattoir data and survey data from farmers to work out what the parasite problems are and to apply all modern technologies. The surveys are temporal and spacial (which farms) which makes this work very interesting."

"Terry is a protein researcher who specialises in diagnostic development, diagnoses control and therapies - vaccine development. Terry's skills mean that we can take a whole approach to vet parasitology; understanding the genome, diagnostic angles and therapies – both drugs and biological."

It must be very exciting to have such a dynamic team of researchers working with you, tell us what the future holds?

"We're building our research income, have just built new PC2 laboratories and the other labs are being refurbished. The vet students are in their fourth year and we hope that a few will soon get more involved in our research. There will also be new students from the equine and animal science courses."

Tell us about the opportunities for parasitology students or early career researchers.

"I think we have a critical mass of academics and ideas here at Wagga; we have access to information from farming systems, DPI links, animal production to look at whole-farm issues, a lab with first-class molecular and proteomic facilities, 2-3 hectares of farm on campus and the best equine facilities in the country. CSU wants to build its research facilities and has chosen to selectively support veterinary science. We hope to attract the most talented veterinary science students into research."

(And we might just add that Wagga campus has wine tasting and cheese making on-site… mmmmm delicious! - ed)

Dr Tiggy Grillo

Tiggy is a population geneticist who studies endoparasites of sheep and goats– specifically, Teladorsagia, or Ostertagia (as it is known in Australia). This worm infects sheep and the feral goat population in Australia.

"Our aim is to research whether populations of Teladorsagia differ across Australia and the implications this has on the spread of resistance in sheep and goats and, in the future, cattle."

"We're currently studying the population genetics of this worm in sheep populations around Australia with samples from Peter Hunt's CSIRO laboratories, and from Brown Bessier in WA and Ian Beveridge in Victoria. We use DNA fingerprinting techniques to investigate whether these population pockets are different around Australia."

"We hypothesise that environmental conditions, for example dry climate, may cause bottlenecks in the population and we're looking at whether there is a difference in resistance between these populations."

"Our research will give us baseline data to be able to understand the population genetics and to work out which are drug resistant and what influences the development and spread of resistance."

"We look at historical data, information about farms, for example what other animals are farmed, the drugs [anthelmintics] used, stocking densities, what importing and quarantine practices they use, to validate our deductions."

"We hypothesise that the Western Australian populations differ from the Eastern state populations."

Tiggy explained that in Britian all populations seem to be panmictic and that this is possibly due to mixing of worm populations when animals mix at markets enough to ensure that the resistant genes spread across the country. There are two hypotheses explaining why populations of nematodes are panmictic; due to human movement of animals or because genetic material doesn't change much over time.

Tell us about your move to work with Nick Sangster at CSU, Wagga Wagga.

"After completing my PhD in Glasgow I wanted a research and teaching position, preferably overseas. I am delighted to be working with Australian parasitologists who are so helpful and among the most well-known scientists in the world."

What interests you about working in this area?

"I love working in an area that has so many facets; parasitology has so many complexities and I can combine my passion for wildlife, love of working with livestock and teaching with a zoology aspect."

"I'm currently supervising a student, Margaret Watson, who is researching parasite load in a species of native birds and their effects on reproduction. The field work is on Montague Island and Phillip Island, and is already producing interesting data.."

How you hope your research will develop in the future?

"I hope to expand this group and try to involve veterinary students in their honours year. Hopefully I will be involved in more wildlife projects and continue my collaborative work around Australia."

Professor Terry Spithill

Terry works on liver flukes, *Fasciola hepatica* in Australia and Europe and *F. gigantica* in the Middle East and Tropics. He studies the comparative biology of these two parasites; acquired immunity and vaccine development.
He also studies malaria.

Terry, tell us about your area of research?

"*Hepatica* is more virulent and can establish in more hosts. Indonesian sheep are immune to *gigantica* but not to *hepatica*. I'm looking at the differences *in vivo* and *in vitro* between the two parasites; studying molecular differences; how they manipulate their host."

"We've discovered differences in gene and protein expression. *Hepatica* produces more superoxide dismutase, a "stress response" protein than *gigantica*."

"Our research question is: why are these two parasites so different? Why do Indonesian sheep express acquired immunity to *F gigantica* but not *F hepatica*? We want to look at the mechanism of immunity in cattle in Australia against both parasites and will be looking at host biomarkers associated with resistance as well as biomarkers in the parasite. We will then use RNAi to knock out different parasite defence enzymes to try to define which proteins are important for the parasite's survival."

"Our ultimate aim is vaccine development for cattle in Sudan, Thailand, Indonesia and China against *Fasciola gigantica*. We use cattle as the main economic benefit for producers is to protect cattle and buffalo in these countries. Because of their size and the effects of the flukes on the quality of meat and milk there is most benefit working with cattle – however they are expensive to work with and it is difficult to get funding. The Sudanese and Thai governments and other agencies recognise the benefit and so have provided some funding.

Terry is also working with Nick Sangster on nematode infections in horses.

"The nematodes form cysts in the intestine of horses and we want to develop a better diagnostic test for this infection. We use faeces/serum to look for biomarkers for this infection – a parasite biomarker or a host biomarker - to try and find a marker for the cyst before the eggs appear. This work is funded by the Rural Industries Research and Development Corporation."

How did you become involved in parasitology research?

Terry's PhD involved studies on drug resistance in yeast, looking at mitochondrial resistance to antibiotics and also involved testing some anti-trypanosome agents. Bill Trager had just developed the first tissue culture method for malaria and Terry, who was in Thailand at the time, got chatting with Bill who advised him to work on parasites. Terry took a job studying African trypanosomes in Colorado. Terry said they had just invented a technique of cultivating the blood stream form of trypanosomes. He said that looking at these parasites was fascinating, "They looked like little slithers of silver swimming around" and Terry has been hooked ever since. He has worked on ***Leishmania*** at UCLA and with Graham Mitchell at WEHI. In Indonesia Terry worked with ACIAR on liver fluke and with AusAID on malaria and also worked on these parasites at Monash University in Victoria and McGill University in Canada.

Tell us about your move back to Australia from Canada.

"We returned to Australia for personal reasons after accepting a position at CSU working with Nick Sangster. CSU have decided to boost their research profile and my appointment as a Chair in Veterinary Parasitology was one of 15 strategic research professors created. The CSU Vet School has attracted a great research group and excellent students".

"It feels good to join a new vet school, form a new group with Tiggy, Dave and Nick and create new graduate training opportunities. It is a very supportive university with excellent training opportunities."

What interests you about working in this area?

"My motivation is working on neglected diseases that have a huge impact on populations. In places like Sudan and Indonesia the farmer's cattle are their pension plan, bank account, dowry. They "trade" in cattle – their wealth is measured in cattle. When these animals get infected with flukes they can lose 15-20% of their body mass, produce less milk and have reduced draught power. The parasite might not kill them, but it makes them less healthy. This is similar to the situation in developing countries around the world. Parasitic infections decrease productivity; we can increase productivity by about 20% just by controlling fluke infections. Flukes are also a problem in western countries. Australia loses about $90 million per year due to liver fluke. Fluke is also a human disease; in parts of Bolivia 70% of school children are infected with liver fluke *(F. hepatica)*. Populations in Egypt, Iran, Portugal, The Mediterranean, Peru and Vietnam are also affected."

Tell us about how you hope your research will develop in the future?

"Deeper understanding of parasite biology and develop new ways to control parasites."

"Large animals respond to juvenile flukes – I want to find out how they kill the parasite. This will inform our vaccine work. We will look at the surface of the juvenile parasite, find out what proteins are on the surface and see what is a target of immunity."

"I also want to continue our initial work in Indonesia to validate a fluke vaccine in large animals and convince a funding body to help fund this work."

"We are applying for a grant for some collaborative work on drug resistance and vaccines in India with Alagappa University's School of Biotechnology to make a combination vaccine against *F gigantica*."

What has been the highlight of your science career so far?

"Our work in Indonesia showing that sheep acquire resistance to tropical flukes and that we can potentially control *Fasciola gigantica* with vaccines."

"And, at McGill University our work on biomarkers in blood human parasites."

"Discovering that an anti-cancer drug is also a very effective anti-malarial drug, and that this may work against several parasites, was also a thrill. The drug's toxicity is minimal; it has been called a "drug of last resort" for cerebral malaria and may be useful when there is no time to check what drug resistant parasites infect the patient – the drug poses a low risk to the patient."

Terry is looking for students to work with him so contact him if you are interested.

Dr David Jenkins

"My research focuses on the immunodiagnosis of hydatid tapeworm infection in dogs. I'm conducting a widespread survey of domestic and wild dogs and have identified 46 areas of interest, at a property level, in NSW that need follow-up due to sheep at the abattoirs being infected with hydatid. This work is funded by Novartis Animal Health and we aim to produce a digital map for each state for the distribution of hydatid infection with sheep and dogs. We are doing sheep traceback studies in Tasmania, Victoria, South Australia and Western Australia funded by Meat and Livestock Australia."

"We target dogs in areas that look interesting, particularly in respect of proximity to National Parks and State Forest where sheep, rural dogs, hunting dogs, and dogs on the peri-urban fringes reside."

"We are collaborating with Phillip Craig at the University of Salford and David Heath at AgResearch New Zealand. David is providing the reagents, and we will run the ELISA to trap the hydatid copro antigens out of the faeces and use the ELISA colourchange to identify infected ones."

How did you become involved in parasitology research?

"I became involved by accident. I was working in a blood group reference lab in the UK, wanted to travel, and applied for a job in Indonesia to work on hookworm infection in people. To my considerable surprise I was selected. I spent two and a half years in Indonesia and then joined Mike Rickard and Marshall Lightowlers at the Vet School in Melbourne where I did my PhD. Following that I worked in Kenya field testing a diagnostic test for dogs infected with tapeworms. Since then I have worked in Canberra for 19 years as Director, Australian Hydatid Control & Epidemiology Program and recently moved to CSU."

"It has been an exciting move to CSU in Wagga Wagga. There is a lot of support from the University and I am enjoying teaching veterinary students and scientists and conducting my research."

"Our research group all get on very well, we all have different skills - we are excited about our research, enthuse each other and all want to contribute. We're currently working on flukes, tapeworms, sheep nematodes and biochemicals."

What interests you about working in this area?

"I think parasites are immensely interesting, how they get transmitted – especially something that is a zoonosis. And, most especially when you meet people who have had a parasitic infection or who are worried about getting one."

"The wildlife component of parasitology gets me out into the wilderness and doing field work in scenically beautiful places, with fascinating and unique people – I love that."

How do you hope your research will develop in the future?

"I want to write a paper to bring together all of the pieces of the hydatid puzzle I've and other colleagues have been working on for so many years."

I'd like to see the vaccine developed by Marshall Lightowlers be used in livestock in conjunction with praziquantel baits around picnic/camping places in National Parks that are popular with tourists. We should vaccinate sheep on farms adjacent to National Parks so that they are protected and use praziquantel baits to de-worm targeted dingo population."

Tell us about the highlight of your science career so far?

"The opportunity to travel to many parts of the world working on parasites. Seeing how important parasitology research work is in communities to people and their animals and seeing how, with practical and basic action, interventions can make a very important difference. For example vaccine use in livestock in under-developed countries can make a huge difference to people's lives."

Announcements

2008 Annual Residential Meeting of the Royal Society of Tropical Medicine and Hygiene, Brighton, United Kingdom, on Wednesday 17th – Friday 19th September 2008.

The Royal Society of Tropical Medicine and Hygiene is a multi-disciplinary international health society which aims to promote and advance the study, control and prevention of diseases in disadvantaged communities by facilitating discussion and the exchange of information. The Society has 100 years of experience of work in this area, culminating in the successful conference held in London in September 2007 to celebrate the Society's Centenary.

For more information visit their website http://www.rstmh.ukevents.org or download the flyer http://www.parasite.org.au/arcnet/events/tropmedicine.pdf

Positions Vacant

PhD Scholarship in Molecular Parasitology

A PhD scholarship is available in the Institute for the Biotechnology of Infectious Diseases at the University of Technology Sydney. The project will involve the study of the comparative genomics of *N. caninum* by high throughput DNA sequencing and bioinformatics approaches, as well as using modern molecular approaches to identify potential targets for vaccine development.

Further information can be obtained from Prof John Ellis (email: john.ellis@uts.edu.au; http://www.science.uts.edu.au/health/ellis.html)