ARC/NHMRC RESEARCH NETWORK FOR
PARASITOLOGY

NEWSLETTER

Issue No. 17 November 2007

Index

News

1 Welcome and Lisa's baby news

2 New staff member

3 Conference

4 Grant announcements

Events

5 EMOP 2008 - volunteers needed

6 Seminars in tick research

7 Trypanosomiasis and Leishmaniasis Seminars

Travel Awards

8 Latest awardees

9 Dates

Profiles

10 Jen Covello, University of Tasmania

11 Prof Roger Pritchard, ASP Fellow

Positions Vacant

12 The Queensland Institute of Medical Research

13 University Of Otago, Dunedin, New Zealand

14 McGill University, Canada.

15 Papua New Guinea

16 University of Western Sydney

New look Network Newsletter

Dear Network Participant,

Thanks to our Network Newsletter sponsors, BioAustralis, for our new-look Network Newsletter.

In our November issue we feature interviews with Prof Roger Prichard, recently awarded an ASP Fellow and Jen Covello who travelled to Aberdeen for a Researcher Exchange after being awarded a Network Travel Award early this year.

Ian and I are delighted to announce the birth of our daughter Beatrice Rose Harris, born on 4 October 2007 and weighing 3.79kg. Bibi is just adorable and as you can see in the picture (right) Connie is enjoying being a big sister.

Don't forget if you have any feedback about the newsletters or the website, parasitology news stories, job adverts, or up-coming events please contact me by email Lisa.Jones@uts.edu.au or telephone Wendy Relf on 02-95144006.

We wish you all a fantastic Christmas and Happy New Year. Please send me items for the next newsletter by 28 December 2007.

Best wishes,

Lisa, Communications Coordinator, ARC/NHMRC Research Network for Parasitology

New Network staff member, Wendy Relf

We welcome our newest Network staff member, Dr Wendy Relf who will be working as a part-time Administration and Communications Officer for the ARC/NHMRC Research Network for Parasitology.

Wendy is a research scientist with teaching experience and will be helping with marketing, communications and fundraising.

Wendy is based at the University of Technology, Sydney (UTS) with Nick and Lisa and can be contacted by Telephone: 61-2-9514 4006, Fax: 61-2-9514 4201 or by email:

wendy.relf@uts.edu.au

Conference

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

The 2008 ASP & ARC/NHMRC Research Network for Parasitology Annual Conference will be held from 6 to 9 July, 2008, at the Stamford Grand Hotel, Glenelg, South Australia.

The following speakers and sessions have been confirmed for the Scientific Programme of the 2008 ASP & Network Annual Conference:

Host-Parasite Interactions

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

Apicomplexan Organelle Biology

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

Parasite Proteases

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

Plant Parasitic Nematodes

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

State-of-the-Art Technologies: Proteomics

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

Parasites and the Aquaculture Industry

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

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

This conference is an opportunity for parasitologists from Australia, and around the world, to discuss the latest research in parasitology. It will run over four days beginning with a Welcome reception on Sunday evening (6th), the scientific program will start Monday (7th) morning, and will culminate with the conference dinner on Wednesday (9th) evening. There will be plenty of opportunities for contributed talks and posters on any and every topic parasitological.

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 2008. Keep an eye on the Network website for the latest conference news www.parasite.org.au/arcnet

ARC & NHMRC grant announcements

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

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

ARC AUSTRALIAN RESEARCH FELLOWSHIP

Alex Maier, WEHI

ARC DISCOVERY PROJECTS

Alex Maier, WEHI

Functional Genomic Analysis of Exported DNAJ Molecules in the Malaria Parasite Plasmodium falciparum

MIke Bull, Flinders University of SA

Lizard social networks and the spread of parasites

Michael Duffy and Graham Brown, The University of Melbourne

Transcriptional control of antigenic variation in the malaria parasite Plasmodium falciparum

Dr V Likic and Malcolm McConville, The University of Melbourne

Characterization of metabolic networks in a microbial pathogen

Stuart Ralph, The University of Melbourne

Chromatin barriers in Plasmodium falciparum gene regulation

Andrew Thompson; Paul Monis; Dr PL Clode; Ryan O'Handley; Merle Olson, Murdoch University

Interaction of Cryptosporidium lifecycle stages with aquatic biofilm communities

ARC LINKAGE INTERNATIONAL PROJECTS

Min Hu, Robin Gasser, Prof PW Sternberg, The University of Melbourne

Using integrated frontier and smart technologies to identify new drug targets for parasites causing major diseases in humans and animals

Aaron Jex, Robin Gasser, Dr DT Littlewood, The University of Melbourne

MitoGenomics of key pathogens – an international co-operative

ARC LIEF GRANT

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

Advanced high throughput functional genomics and gene mapping

ARC LINKAGE PROJECT

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

Plant Cells for Improved Oral Delivery of Vaccines

NHMRC PROGRAMME GRANTS

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

Development of innovative approaches to manage insect transmitted diseases

David Kemp, Michael Good, Don McManus, Istvan Toth, Nick Anstey, Kabada Sriprakash, Denise Doolan, Chris Engwerda, Alex Loukas, QIMR

Immunity and pathogenesis in tropical and infectious diseases: implications for vaccines and drug development

NHMRC FELLOWSHIPS

Magda Plebanski, Monash University

Brendan Crabb, WEHI

Terry Speed, WEHI

Nick Anstey, Menzies School of Health Research

James McCarthy, QIMR

NHMRC PROJECT GRANTS

Rowena Martin, Australian National University

Characterisation of the chloroquine resistance transporter of the malaria parasite

Nick Hunt, Helen Ball, Georges Grau, The University of Sydney

Dysregulation of cytokine networks: a key determinant of the pathogenesis of cerebral malaria

John Dalton, Sheila Donnelly, Institute for the Biotechnology of Infectious Diseases, UTS

Regulation of immune mechanisms by pathogen cysteine proteases

Heinrich Korner, James Cook University

Modulation of leishmaniasis by the proinflammatory cytokine, TNF

James McCarthy, Shelley Walton, Cielo Pasay, Deb Holt, QIMR and Menzies School of Health Research

Diagnostics for drug resistance in scabies

Jacqui Upcroft, Peter Upcroft, QIMR

The mechanism of action of new 5-nitroimidazole drugs which are effective against metronidazole-resistant Giardia

Mal Jones, Wenbao Zhang, QIMR

Molecular cascades determining asexual/sexual development in Echinococcus granulosus

Mick Foley, Andrew Coley, LaTrobe University

Structural basis for inhibition of malaria invasion by targeting the apical membrane antigen of Plasmodium falciparum

John Reeder, Alyssa Barry, Macfarlane Burnet Institute

Population genomics of Plasmodium falciparum surface antigen genes

Stephen Rogerson, Jocelyn Glazier, The University of Melbourne

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

Louis Schofield, Campbell Witt, Frank Christiansen, Ivo Mueller, WEHI

Role of NK receptors is susceptibility and resistance to human malaria

Alan Cowman, James Beeson, WEHI

Trafficking and expression of PfEMP1 on the surface of p. falciparum-infected erythrocytes

Jake Baum, Chris Tonkin, WEHI

Regulation of actin polymerisation during malaria parasite invasion of the human erythrocyte

Paul Gibson, Tania de Konig-Ward, Justin Boddey, WEHI

Identification of Plasmodium falciparum translocon that exports parasite proteins into their erythrocytic hosts

Thomas Nebl, Tony Hodder, WEHI

A comprehensive immunoproteomic analysis of the repertoire and dynamics of human antibody responses to malaria

James Beeson, WEHI

Antibodies against erythrocye invasion ligand of Plasmodium falciparum and protection from malaria

Tim Davies, Harin Karunajeewa, Ivo Mueller, John Vince, University of WA

Severe malaria in children in Papua New Guinea: a longitudinal study of pathophysiology, management and outcome

Trypanosomiasis and Leishmaniasis Seminar - Spring 2008

The Trypanosomiasis and Leishmaniasis Seminars have been held on an occasional basis over many years in a variety of European countries. They have all been both scientifically stimulating and enjoyable, bringing together a full range of European scientists together with an increasing number of colleagues from around the world.

With the advent of the Woods Hole Kinetoplastid Molecular Cell Biology Meetings organised by George Cross, it was agreed that the two series of meetings should be scheduled in alternate years, providing an annual

Events

Check out the latest parasitology events on the Network website

www.parasite.org.au/arcnet/events

Visiting lecturer to present tick research seminars at University of Melbourne and DPI ARI, QLD

Dr Felix Guerrero, USDA, is currently visiting the Queensland DPI Tick Research Program hosted by Dr Ala Lew.

In Brisbane, Dr Guerrero will present a seminar entitled "Differential protein expression in gut and ovarial tissues of Babesia bovis-infected and uninfected Rhipicephalus (Boophilus) microplus" on Wednesday 28th November at 4pm

A Block, Seminar Room, Animal Research Institute, 665 Fairfield Rd, Yeerongpilly (entrance via Ortive St.) The seminar will be followed by wine and cheese. RSVP contact is Dr Ala Lew by Email ala.lew@dpi.qld.gov.au

Dr Guerrero's seminar "Acaricide resistance-associated gene expression in Rhipicephalus (Boophilus) microplus" at The University of Melbourne will be held Friday 30th November, at 1pm at 2nd floor lecture theatre, Veterinary Science Building, The University of Melbourne, cnr Park Drive and Flemington Rd, Parkville. Lunch will follow the seminar.

Contact Dr Deanne Greenwood, PhD GAICD, Centre for Animal Biotechnology, Faculty of Veterinary Science, The University of Melbourne cnr Park Dve & Flemington Rd, Parkville, 3052 for more details. Ph: 03 8344 7892 (office) or Email: deanneg@unimelb.edu.au Website: www.cab.unimelb.edu.au

Volunteer helpers for EMOP 2008 in Paris

The European Multicolloquium of Parasitology, EMOP10 will be held in Paris

August 24th – 29th 2008

For more information visit their web site www.emop10.eu

The organising committee are looking for young colleagues interested in volunteering to help organise sessions during the meeting. Volunteers will have free access to all the Congress and free accommodation at the International student City of Paris.

If you are interested in taking up this great opportunity to volunteer at an international parasitology conference please contact Dr Ronan Jambou by email rjambou@med.usyd.edu.au

Telephone 02 9036 3222 or Fax 02 9036 3177

Events

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With the advent of the Woods Hole Kinetoplastid Molecular Cell Biology Meetings organised by George Cross, it was agreed that the two series of meetings should be scheduled in alternate years, providing an annual international meeting concentrating on the kinetoplastid parasites.

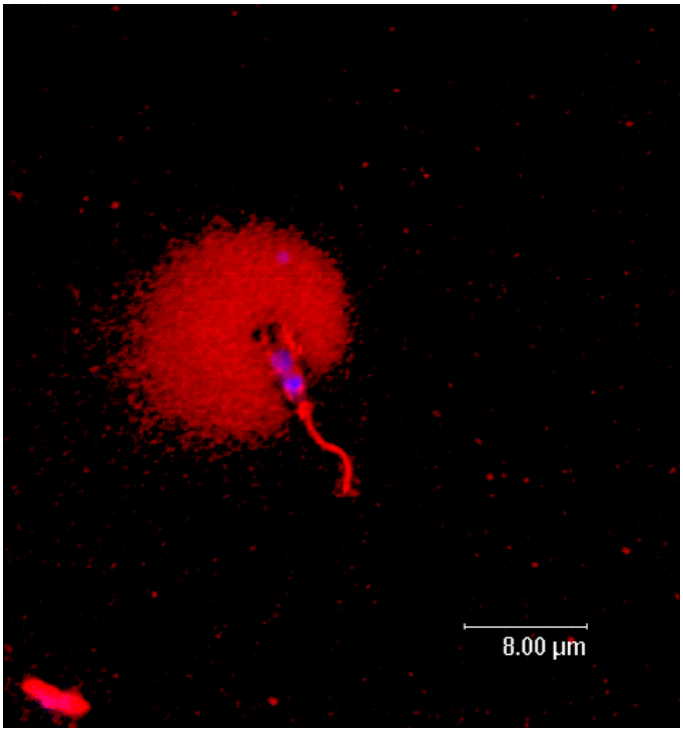
The meeting for 2008 will take place in Newcastle, England, from 31st March to 3rd April. It will form one stream of the British Society for Parasitology's annual Spring Meeting and run over the full 3 days of the program. The format of the meeting will be similar to both the previous Seminars and the Woods Hole meetings. Thus there will some invited talks from PIs but an emphasis on talks by postdocs and senior graduate students, chosen from submitted abstracts.

These meetings provide great opportunities for junior scientists to present their data and meet with others working in similar areas, while also offering an excellent forum for everyone to engage in lively debate, catch up with progress in the field and renew existing friendships and collaborations.

Registration will open in January 2008 with the Abstract deadline being in December 2007.

Contact Professor Graham Coombs e-mail: graham.coombs@strath.ac.uk if you are interested in attending so that your details are placed on the circulation list.

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



"leishmania in bloom" at The Queensland Museum

This image of the parasite Leishmania major, was taken using immunofluorescence on living or fixed parasites by Prof Emanuela Handman and Joan Curtis, Walter and Eliza Hall Institute of Medical Research (Australia). Emanuella has been working on cutaneous leishmaniasis for about 30 years and calls this image "leishmania in bloom".

Leishmaniasis is a disease present on all continents. It has been classified by the World Health Organisation as "uncontrolled and growing in scope" and is a major problem in war-torn countries such as Sudan and Iraq. It is also a growing concern in AIDS patients.

Our "Parasites in Focus" photography exhibition will shortly be moving to the Queensland Museum in Brisbane. Check our website for details www.parasite.org.au/arcnet/events

Network Researcher Exchange, Training and Travel Awards

Network Travel Award Winners

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

- Philip Crosbie, PhD, Aquafin CRC Postdoctoral Research Fellow, University of Tasmania, for a Research Exchange to Laboratory at the Institute of Parasitology, Academy of Sciences Ceské Bud jovice in the Czech Republic
- Min Hu, Postdoctoral Researcher, Gasser Laboratory, The University of Melbourne, for a Research Exchange to Paul Sternberg, The California Institute of Technology, U.S.A.
- Michelle Gatton, Kathy Andres and Alberto Pinzon-Charry from the Malaria Drug Resistance & Chemotherapy Laboratory, QIMR to run a symposium / workshop focused on promoting the malaria research being undertaken in Northern Australia
- Professor Andrew Thompson, Head of Parasitology Section and Head WHO Collaborating Centre for the Molecular Epidemiology of Parasitic Infections, Murdoch University, for a Researcher Exchange to bring Dr Tim Paget from Medway School of Pharmacy, University of Kent, UK
- Lesley Warner for a Researcher Exchange to visit The Bernice Bishop Museum Honolulu Hawaii
- Leann Tilley for a Researcher Exchange to visit X-ray and optical microscope facilities in California
- Barbara Nowak for a Researcher Exchange to visit Pacific Biological Station, DFO Canada and salmon farms on the Pacific Coast of Canada and the USA
- Kate Hutson for a Researcher Exchange to visit Dr Francisco Montero, Dr Astrid Holzer and Ms Aigües Repulles at the University of Valencia, Spain and London to The Natural History Museum
- Danielle Smyth for a Researcher Exchange to visit laboratories of Professor Jeff Bethony at Centro de Pesquisas René Rachou, FIOCRUZ and Drs. Marcos Horacio/ Elida Rabelo's laboratory at the Federal University of Minas Gerais in the city of Belo Horizonte, Brazil
- Ceilo Pasay who won a Network Travel Award for a Researcher Exchange to visit Wright State University, Ohio USA to study resistance in scabies mites

Network Travel Award application dates for 2007/08/09

The Network Management and Advisory Committee recently approved an increase in funding for the Network Researcher Exchange, Training and Travel Awards. Below are the dates for submission of your Network Travel Award application. Following each of these dates the applications will be assessed by the Network Management Committee and applicants will be advised of the outcome where possible within four weeks.

2007/08/09 dates for submission of Network Travel Award applications:

- Friday 30 November 2007
- Friday 25 January 2008
- Friday 28 March 2008
- Friday 30 May 2008
- Friday 25 July 2008
- Friday 26 September 2008
- Friday 28 November 2008

Profile

Network Travel Award Winner Jen Covello

Congratulations to Jen Covello, PhD Candidate at the School of Aquaculture, University of Tasmania successfully applied for a Network Travel Award for a Researcher Exchange to visit the Scottish Fish Immunology Research Centre in Aberdeen, Scotland to investigate molecular aspects of the striped trumpeter immune response as it relates to host-parasite interactions under the direction of Prof. Chris Secombes from May-June 2007. Jen speaks to Lisa Jones about her experiences on her researcher exchange.

Jen, tell me about your area of research?

"I work with a species of fish called the striped trumpeter. It has been under investigation as a species for commercial culture in Tasmania since the 1980s. A lot of progress has been made in terms of closing the life cycle and early rearing, and earlier this year the first trial cohort was put to sea. My project focuses on gaining an understanding of the immune system in terms of when the antibody response begins and how the fish reacts to pathogens. This will help in the future if vaccine development or other disease mitigation measures become necessary.

Recently new species of parasites have been identified on the striped trumpeter and I will be involved in a project looking at the host's response to these parasites. Any information we can gain about how the parasite is affecting the host can be helpful to developing mitigation strategies if these parasites become a problem in a commercial culture situation."

What interests you about working in this area?

"I think it's exciting to work with a new species. Even though we know a lot about certain fish like salmon, each species can be really different and it's interesting to see those differences. I also like the idea that the knowledge generated by my project can be directly applied to industry."

How do you see your research developing in the future?

"The idea of my project is to get a general understanding of the immune system of the striped trumpeter in terms of its ontogeny and also how it reacts to pathogens. By using a few generic models like model antigens and ectoparasites, we can gain background knowledge that can be built upon if disease problems develop as striped trumpeter culture grows. The plan is to lay the groundwork so that if problems do arise we are in a position to deal with them."

How has the Network travel award helped your research develop?

"The network travel award allowed me to head to Aberdeen in Scotland for two months to conduct some of my research. The lab I visited is the leading fish cytokine laboratory in the world. They are extremely well equipped in terms of both equipment and knowledge when it comes to finding cytokine genes. Because my project is the first to look at the immune system of this fish, we

Profile

didn't have any sequences to work with so I had to identify some key immune genes to look for. I was able to find 6 genes while I was there. Two of them will allow me to further my work on the ontogeny of the immune response and the other four will be used to look at host parasite interactions."

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

"I would say they should just do it. I think the travel award is a great way to gain experience in a different lab and learn about how other groups are approaching similar research areas."

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

"I think that parasitology is a really exciting field to work in. There is a never ending list of parasites that are constantly doing battle with their hosts so there is definitely no shortage of areas of study."

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

"I have only been a part of the network for about a year, but I think it is a great way to keep on top of what other scientists are doing. It's a really great way to get in touch with other researchers that are working in areas similar to your own. Obviously the awards system is a great way to not only learn from others, but to also get your science to a wider group of people."

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

"I am very early in my career as I am only half way through my PhD at the moment, but there have definitely been a few highlights. I really enjoy taking the knowledge we gain in a more confined laboratory setting and discovering ways to apply it so that it can be beneficial to the aquaculture industry."

What would you like to do in the future? (What are your aspirations?)

"The first goal is to complete my PhD. After that I think that I would like to continue in research but possibly in the private sector. Working in the fish health industry, researching solutions to some of the major pathogens that affect cultured fish would be my ideal job."

Jen on her Researcher Exchange in Aberdeen, Scotland

ASP Fellow, Prof Roger Prichard

Congratulations to Prof Roger Prichard from McGill University who was awarded an ASP Fellow at the 2007 ASP & Network Conference. Roger tells us a little more about his research and about being part of the ASP.

Tell me about your area of research?

"I mainly work on determining how anthelmintic drugs work in nematode parasites, and the mechanisms and genetics of anthelmintic resistance. We have focussed on the macrocyclic lactone anthelmintics, such as ivermectin, and the benzimidazole anthelmintics, such as albendazole. We work principally with gastrointestinal parasites, such as Haemonchus contortus and Cooperia oncophora from sheep and cattle, Ascaris lumbricoides and Trichuris trichiura from people, and filarial nematodes, such as Onchocerca volvulus, Wuchereria bancrofti from people, and Brugia malayi, a human parasite that can be maintained in gerbils, and Dirofilaria immitis, the dog heartworm.

Anthelmintic resistance is a big problem in H. contortus and C. oncophora, and we have recently reported resistance to ivermectin in O. volvulus. This latter development is potentially a big problem facing efforts to control the disease of River blindness in Africa. Instances of low efficacy, which could be due to developing anthelmintic resistance, have been reported for the human gastrointestinal nematodes, heartworm in dogs and lymphatic filaria. In addition to loss of anthelmintic efficacy and sometimes frank resistance, we have also seen genetic changes in these parasites which are likely to be associated with developing anthelmintic resistance.

However, there have been some spin off from investigating how antiparasitic drugs work to investigating the targets of those drugs as vaccine candidates. So we are also involved with research on a vaccine for African Trypanosomiasis (Sleeping sickness). This project, funded by the Bill and Melinda Gates Foundation is investigating tubulin subunits from Trypanosomes as vaccine candidates."

How did you become involved in parasitology research?

"At the time that I was really starting out on my research career, we had almost no understanding of intermediary metabolism in the liver fluke, Fasciola hepatica, or any helminth for that matter, so I chose to investigate energy metabolism in fluke under the supervision of three professors at UNSW, Phil Schofield, Ian Johnston and Wal McManus. It was such an open book at that time that I could do almost anything I wanted to and Fasciola was a great organism to work with - it was relatively large and its energy metabolism proved to be very different from higher, aerobic organisms, so, we were able to discover some novel metabolic pathways. It was a lot of fun and really turned me on to a career in parasitology."

What interests you about working in this area?

"Parasitology is a fascinating area of research. Treatment and control are complex and don't always work because of the epidemiological conditions, drug resistance, host immune reactions (or lack of), and many host or parasite physiological or life cycle factors. In order to optimize control, we need to understand the host-parasite interaction and the limitations of the tools that we have available for control. This involves considering all aspects of the biology of the host and the parasite – a fantastic rich mix of all of the life sciences. In

Profile

addition to the richness of the science, we can also sometimes do some good for people or animals suffering from parasites and/or to educate students about the wonderful diversity of life. I can't think of a better way to do this than be studying and teaching about parasites."

How do you see your research developing in the future?

"We now have some wonderful new tools to study parasites and parasitic diseases, such as genomes, molecular modelling and computer programs which can integrate vast amounts of information about parasite populations. However, to make good sense and good use of these new tools, we need to understand the basics about the life-cycles and the host-parasite interactions. I see the future in the integration of the new tools and the basic parasitology to improve our ability to live with parasites, and to control them when we need to – my own research is certainly moving in that direction."

Tell me about your involvement with the ASP?

"I have been a member of ASP since 1967 when I started my Ph.D. work. While I was most active in ASP when I was working at the McMaster Lab in Sydney and contributed to the organisation of some of the ASP meetings and to having the Bancroft-Mackerras Medal made, I have continued my membership and participation in ASP conferences whenever I can, since I took up a chair in parasitology at the Institute of Parasitology, McGill University in Montreal."

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

"That is a hard question. There have been many. Certainly being made an ASP Fellow is a highlight of my career. The friendship that I have with parasitologists around the world and especially with many Australian parasitologists has also been a highlight of my science career. In terms of a research finding, a highlight has been the first description of a mechanism of macrocyclic lactone resistance and associated genetic changes in resistant parasites. This finding has led to much research in this area and to approaches to partially overcome resistance to macrocyclic lactone anthelmintics."

How does it feel to be made an ASP Fellow?

"I have a great deal of respect and admiration for the ASP as a scientific society. It is very dynamic and well run and its meeting are always excellent. It is also the only scientific society in which I have remained a member since the very beginning of my scientific career. Therefore, I am very happy to have been elected a Fellow of ASP and it means a great deal to me personally. Because of the high regard in which ASP and Australian parasitologists are held around the world, being an ASP Fellow is also an important professional achievement. I look forward to remaining very involved with the Society."

What would you like to do in the future?

"In recent years my research has become much more involved in the problems of parasite control and developing anthelmintic resistance in parasites of humans in developing countries. I look forward to becoming more involved with parasitic disease control in developing countries, with the use of molecular markers we have developed to monitor for anthelmintic resistance and to contributing to WHO coordinated efforts to develop new drugs and control measures for helminth parasites of humans. I continue to enjoy training graduate students and postdocs, teaching parasitology and seeing parasitology research prosper around the world."
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What would you like to do in the future? (What are your aspirations?)

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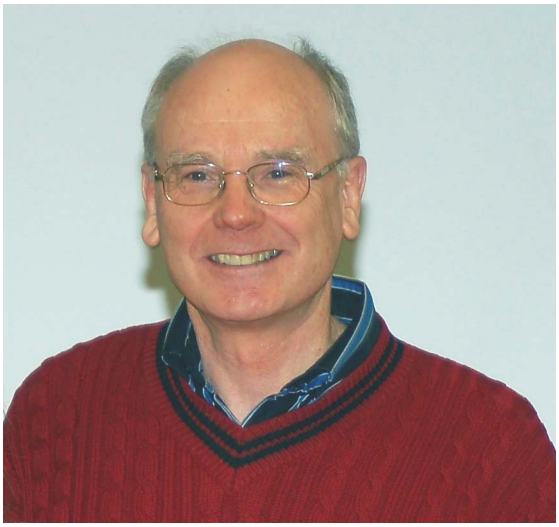

Positions Vacant

There are new jobs on the Network website in parasitology - check the Network website for full details of all current vacancies http://www.parasite.org.au/arcnet/jobs

If you would like to be alerted when a new job is advertised on the Network website please let me know by email (lisa.jones@uts.edu.au)

PostDoctoral Fellows at The Queensland Institute of Medical Research

The Queensland Institute of Medical Research (QIMR) is one of the largest medical research institutes in the southern hemisphere, with programs in areas such as cellular and molecular sciences, epidemiology and population health, cancer biology, biotechnology, infectious diseases and vaccine development. Applications are invited for PostDoctoral Fellows to join the Translational and Vaccine Immunology Laboratory at QIMR. These positions offer the opportunity to expand on recent advances in genomics, proteomics, and molecular immunology to improve our understanding of the host-parasite relationship on a genome-wide level, dissect the molecular basis of immunity to malaria, and develop an effective malaria vaccine. One position will focus on the application of protein microarrays to determine antigen-specific serology on a whole proteome scale and identify novel Plasmodium antigens which may represent promising vaccine candidates. The second position will focus on cellular immunology aspects, including the role of immunodominance and the interaction between antibody responses and cellular responses on a genome-wide scale.

Applicants must possess a PhD or equivalent, a demonstrated proficiency to carry out high quality research, and a proven record of accomplishment. Experience in immunology, DNA microarrays, basic informatics and/or functional genomics is particularly desirable. Excellent computer, communication, and organisational skills are essential. Forward thinking, innovation and creativity are encouraged. Experience with malaria, infectious diseases or vaccine development will be highly regarded.

Salary range is $55,854 to $59,956 per annum commensurate with qualifications and experience. A further 4% salary increase will be effective under the QIMR Workplace Agreement. Attractive salary packaging and superannuation options also apply. These are full time appointments for three years with the possibility of review subject to funding availability.

Further Information: Dr Denise Doolan on (61-7) 3362 0382 or Denise.Doolan@qimr.edu.au

Applications should include a curriculum vitae, proof of qualifications, and the names and contact details of three professional referees.

Quote reference # 69/07 and send applications to: vacancies@qimr.edu.au or: Human Resource Officer, Queensland Institute of Medical Research, PO Royal Brisbane Hospital, QLD, 4029.

Applications Close: 5:00pm Friday 30 November 2007

Two positions at the Department Of Zoology, University Of Otago, Dunedin, New Zealand

Postdoctoral Fellow Evolutionary Biology of Parasites (Fixed-term)
Reference Number: A07/149

This position is funded by a grant from the Marsden Fund to Professor Robert Poulin and Dr Devon Keeney, and is available for three years. The appointee will have expertise in molecular ecology, particularly with microsatellite markers; experience in experimental parasitology would be an important asset but is not essential. Applicants must have completed a PhD and have previous scientific publications in a relevant field. We wish to fill this position by February 2008 or soon thereafter.

Our research programme aims to investigate the key factors influencing the evolution of host specificity in parasites. More specifically, the research will examine how plasticity in phenotype (morphology and behaviour) and genetic variation affect the ability of parasites to exploit novel hosts. Using a native New Zealand marine trematode (parasitic flatworm) species that infects coastal crustaceans as an experimental model, this work will combine experimental parasitology and genetic analyses to break new ground in our understanding of the factors influencing the ecology of resource utilization and the evolution of parasitic diseases.

Specific enquiries may be directed to Professor Robert Poulin, Department of Zoology, Tel 03 479 7983, Fax 03 479 7584, Email robert.poulin@stonebow.otago.ac.nz

Closing Date: Friday 30 November 2007.

With each application you must include an application form, an EEO Information Statement, a covering letter, contact details for three referees and one copy of your full curriculum vitae. For an application form, EEO Information Statement and a full job description go to: www.otago.ac.nz/jobs Alternatively, contact the Human Resources Division, Tel 03 479 8269, Fax 03 479 8279, Email job.applications@otago.ac.nz

PhD Scholarship in Zoology "The Evolutionary biology of parasites"

Applications are invited from suitably qualified students for one PhD scholarship to work under the supervision of Prof Robert Poulin. The scholarship is part of a research grant from the Marsden Fund awarded to Prof. Poulin and Dr Devon Keeney, and is available as of early 2008 for three years.

The research programme aims to investigate the key factors influencing the evolution of host specificity in parasites. More specifically, the research will examine how plasticity in phenotype (morphology and behaviour) and genetic variation affect the ability of parasites to exploit novel hosts. We will use a native New Zealand marine trematode (parasitic flatworm) species that infects coastal crustaceans as an experimental model, with the work involving a combination of experimental parasitology and genetic analyses. The PhD project will fit within this overall theme. Candidates should have interests and/or experience in either host-parasite interactions or evolutionary biology. More importantly, candidates should be highly motivated and enthusiastic about pursuing doctoral research.

PhD applicants must have been awarded the degree of BSc Honours or MSc (or equivalent) before taking up the scholarship. The emolument is NZ$25,000 per annum (tax-free) for 3 years. There is an additional NZ$4,000 per year to cover tuition fees, and some money available in the final year for thesis preparation costs.

Specific enquiries may be made to Prof Robert Poulin, Tel 64 3 479 7983, Fax 64 3 479 7584 or email robert.poulin@stonebow.otago.ac.nz

To apply:

Send a cover letter stating briefly why they are interested in this scholarship, together with the names, addresses, fax numbers and e-mail of 2 referees and a curriculum vitae before 1st December 2007 to Prof Robert Poulin, Department of Zoology, University of Otago, P.O. Box 56, Dunedin, New Zealand. FAX: 643 479-7584; email: robert.poulin@stonebow.otago.ac.nz

Further details regarding the University and how to apply for admission in postgraduate programs can be found at the University's homepage at http://www.otago.ac.nz

Positions Vacant

Two tenure-track faculty positions at the Institute of Parasitology, McGill University, Canada

The Institute of Parasitology at McGill University (http://www.mcgill.ca/parasitology/) intends to fill two full-time tenure-track positions.

Full or Associate Professor with an outstanding record of publication, research support and graduate student training in parasitology. The candidate will be nominated for a Tier I Canada Research Chair (http://www.chairs.gc.ca/). The ability to work in the international arena is an advantage.

Assistant Professor with postdoctoral experience and a strong publication record in parasitology.

A background in a water-related parasite infection is desired for one of these positions. One appointment is planned in the area of parasite immunology, while strong candidates in any aspect of parasitology will be considered for the other. Previous success in attracting extramural research funding is important. The appointees will hold a Ph.D. or equivalent degree in an appropriate field and will employ molecular research techniques. Recruits will join the FQRNT Centre for Host-Parasite Interactions in Quebec (http://www.mcgill.ca/chpi/). The new faculty will contribute expertise to the Institute's graduate training programs in parasitology and biotechnology, and in specialty and interdisciplinary courses more generally. McGill University is an English language institution functioning in a bilingual environment.

Candidates should forward a CV, a summary of research plans and the names of three referees by 23 November 2007 to:

Prof. Timothy G. Geary, Director, Institute of Parasitology, McGill University, 21,111 Lakeshore Road, Ste-Anne-de-Bellevue, Quebec, Canada H9X 3V9. E-mail: timothy.g.geary@mcgill.ca. Phone: 514-398-7612. Fax: 514-398-7857.

Two positions located at the PNG Institute of Medical Research in Papua New Guinea

Two positions will shortly be available at The University of Melbourne, but physically located primarily in Madang on secondment to the PNG Institute of Medical Research.

One position will be for a clinician to run interrelated studies of the impact of malaria in pregnant women in Papua New Guinea. These include a study funded through the EU FP7 programme on the burden of Plasmodium vivax in pregnancy, and an intervention trial. The studies form part of a collaboration between the PNG Institute of Medical Research, the University of Melbourne, and the University of Barcelona. The PNG IMR celebrates its 40th anniversary next year, and the Vector Borne Diseases Unit has the largest single programme. The Institute is one of the leading biomedical research institutes in the developing world.

Candidates with skills in infectious diseases, epidemiology, or obstetrics and gynaecology would be especially suited to this position. The appointee will be required to travel both locally in PNG and internationally as part of their duties. He/she will also play an active role in training young PNG scientists, and further developing local research capacity.

The successful applicant will be encouraged to enrol in a PhD or MD programme as part of these studies, or to undertake postdoctoral clinical research. This will be an outstanding opportunity for the successful applicants to initiate and participate in collaborative research with leading institutions in the US, Europe and Australia. The successful candidates will be mentored to establish a significant track record in application of clinical research skills to an important health problem.

The second position will be for a postdoctoral scientist to work on a large study of malaria in pregnant women in Papua New Guinea. The project will be a collaboration between the Department of Medicine, University of Melbourne and the PNG Institute of Medical Research, through its Vector Borne Diseases Unit. The PNG IMR celebrates its 40th anniversary next year, and the Vector Borne Diseases Unit has the largest single programme. The Institute is one of the leading biomedical research institutes in the developing world.

Candidates with experience in both basic immunology and molecular biology will be particularly well suited to this position. Flow cytometry, parasite culture and molecular biology facilities are available, including Bioplex. The appointee will be required to travel both locally in PNG and internationally as part of their duties. He/she will also play an active role in training young PNG scientists, and further developing local research capacity.

The studies will be based in and around Madang, on the north coast of PNG (one of the world's best scuba diving sites) and will run for approximately three years.

The successful candidates will have their academic base in the

Positions Vacant

University of Melbourne, but will be physically located primarily in Madang on secondment to the PNG Institute of Medical Research.

Salary will be according to University of Melbourne salary scales.

For more details please contact Associate Professor Stephen Rogerson, Department of Medicine, Royal Melbourne Hospital ph 03 8344 3259, email sroger@unimelb.edu.au or Dr Ivo Mueller, Papua New Guinea Institute of Medical Research, ph +675 (732) 2800 email ivomueller@fastmail.fm

Lecturer or Senior Lecturer in Biochemistry and Lecturer in Molecular Biology at University of Western Sydney

College of Health Science, School of Biomedical and Health Sciences at the University of Western Sydney are seeking dynamic and innovative scholars to take on the roles of Lecturer (Level B) or Senior Lecturer (Level C) in Biochemistry and Lecturer (Level B) in Molecular Biology.

The appointees will be based at the Campbelltown Campus of UWS, but multi-campus teaching may be required.

PURPOSE/MAJOR RESPONSIBILITIES:

The successful applicants will be expected to be involved in a range of academic activities including the coordination and teaching of units in biochemistry, molecular biology and related areas within programs across the school. The appointee will be required to conduct research and supervise undergraduate and postgraduate students in their area of expertise.

Suitably qualified applicants for the Level C position will be required to take on leadership roles within their discipline areas.

Further information, including position descriptions and application details: http://apps.uws.edu.au/vacancies/

Enquiries: Professor Gregory Kolt, (02) 4620 3747 - email: g.kolt@uws.edu.au

Closing Date: 30 November 2007