



NEWSLETTER

Volume 28 Issue No.3 June 2017



Asia's Invisible Malaria

Page 10

An exhibit from the Asia Malaria Images exhibition in Singapore (image by Pearl Gan)



Join us on Tuesday 27th June
for the ASP 2017 Annual Conference Talent Show

PARASITOLOGY'S GOT TALENT

**BONGO PLAYER?
STAND-UP COMEDIAN?
MAGICIAN? JUGGLER?
BIT OF A ROCKSTAR?**

**WHATEVER YOUR TALENT, WE'D LOVE TO SEE IT
AT THE CONFERENCE TALENT NIGHT**

Parasitology's Got Talent will take place at the conference venue (Fairmont Restort Blue Mountains, Leura) on Tuesday 27th June 2017. The talent show and a buffet dinner will follow *Highlights and Snapshots*, which starts at 5pm.

**TO REGISTER,
PLEASE EMAIL LISA
LISA.JONES1@JCU.EDU.AU**

IN THIS ISSUE From the President's Desk

- 3 From the President's Desk
- 4 Notices
- 5 Vale Lord Soulsby
- 6 Crossing Boundaries
- 8 Outreach
- 10 Invisible Malaria
- 11 Pearl Gan
- 12 Asia Malaria images
- 19 Name these ASP Fellows
- 20 Network News
- 22 JD Smyth Travel Award
- 23 International Journal for
Parasitology
- 24 IJP:DDR
- 25 IJP:PAW
- 27 Jobs
- 28 Undergraduate Prize
- 29 Parasites: Friends without
Benefits Part 3
- 31 State News
- 32 Events
- 35 ASP Council

Dear Members,

Now coming is the winter of our discontent- parasitologically speaking!

Our insect and arachnid friends have bunkered down in pupae for the cold weather and our nematodes, rather than freezing to death on pastures, are increasingly hibernating in the interior of a suitable warm host. Call it "arrested development", "aestivation" or "hypobiosis"), they don't care; it simply means that when they resume maturation in spring, their offspring will have an astonishing array of susceptible young lambs, calves, kids, pups and kittens to maximize infection, infestation and reproductive success. What a great idea! So too, this president's life cycle is concluding this winter, with a new invigorated successor. Such is the successful life cycle of ASP Executives- only a few seasoned contributors survive this limited life-span! Those like our EO, ensure that the fitness of this Society prevails- another great idea!

So, what we all need to brighten up these winter months is a conference.

And so it will be at the **ASP 2017 Conference** in Leura, this last week of June (26-29). The program is now available on the website <http://parasite.org.au/2017conference/program/> **"Late-bird" registrations are still available for our Industry-led meeting**, promising to be a very exciting mix of industry perspectives for parasitology research and careers along with our usual fun social events. This ASP Annual Conference program has an outstanding mix of quality international and Australian speakers, including Elsevier Parasitology Lectures, IJP Lecture: **Jacqueline Matthews** (Moredun Research Institute, UK), IJP Drugs and Drug Resistance Lecture: **Ron Kaminsky** (Drug Discovery and Parasitology, Germany), IJP Parasites and Wildlife Lecture: **Christopher Cleveland** (University of Georgia, Athens,



U.S.A.), Parasitology - An Industry Perspective Plenary Lectures, **Norbert Mencke** (Bayer Animal Health, Germany), **Vern Bowles** (Hatchtech, Australia) and **Aleta Knowles** (Virbac, Australia) and our ASP Invited International Lecturers, **Carol Sibley** (University of Washington, USA) and **David Sibley** (Washington University in St Louis, USA). Several will also be part of the Early Career Researcher evening event, hosted by **Virbac**. So be there!!

But getting back on track, our last newsletter (April 2017) provided an overview of the recent 2017 MTM, strategic planning and parasitology education meetings held in February. For the latter, an initial step was to form a Strategic Advisory Committee (SAC) to progress initiatives for national veterinary parasitology teaching - to be extended into medical parasitology. The first workshop to help progress this teaching initiative will take place at the 2017 ASP Annual Conference in Leura with a "Smart Sparrow" lunchtime workshop (bookings required) and an Education Session at 530pm on Wednesday 28th June.

As usual, there is a long list of wonderful contributions of members and their exploits

From the President's desk continued

in the outreach **and network events and State events**. Thanks to each of our **State reps and Lisa and Nick** for the absolute pleasure and excitement of this suite of public engagements. Also listed are journal highlights and list of articles published by ASP members in IJP, IJPDDR and IJPPAW. In addition, each of our journals has new social media accounts for signing up and following. And of course, "jobs and growth" (of events and members).

And congratulations to all our **grant winners** for 2017.

Don't forget to check your email boxes- **annual memberships are due NOW! Be in it.**

I would like to take this opportunity to thank all of the ASP volunteers who work behind the scenes to keep this Society vibrant and progressive. There are many

who contribute but I'd like to personally thank the ASP Executive team, **Peter Rolfe** (Treasurer), **Colin Stack** (Executive Secretary), **Una Ryan** (President-Elect), the ASP Council members, **Giel van Dooren** (ACT rep.), **Danny Wilson** (SA rep.), **Shokoofeh Shamsi** (NSW rep.), **Barbara Nowak** (Tasmanian rep.), **Benedikt Ley** (NT rep.), **Abdul Jabbar** and **Nathan Bott** (Victorian reps), **Mark Pearson** and **Gillian Fisher** (QLD reps), **Stephanie Godfrey** and **Crystal Cooper** (WA reps), **Tina Skinner-Adams** (Incorporation Secretary), **Mal Jones** (Bancroft-Mackerras Medal Convenor), **Brian Cooke** (IJP Editor), **Kevin Saliba** and **Andrew Kotze** (IJP:DDR Editors), **Andy Thompson** (IJP:PAW Editor), **Haylee Weaver** (Archivist), **Nick Smith** (Network Convenor) and **Lisa Jones** (Newsletter Editor, Webmaster and Network Communications Coordinator) and you, the ASP members, who keep contributing to our wonderful world of

parasitology to ensure the energy and commitment to the ASP is kept high. My heartfelt thanks!

My SPECIAL thanks for the dogged and dedicated efforts of the Treasurer, Peter Rolfe, who has single-handedly revised and restructured the Society's financial reporting business system over the past 2 years. This has been a Herculean task but a momentous outcome for the smooth functioning of the Society. Thank you Peter; I think my "ious" amount to around a keg!.

Please read on- this is the aperitif!

David Emery on behalf of the Executive

www.parasite.org.au
www.facebook.com/ASParasitology
www.twitter.com/AS_Para

Notices

WOMEN IN SCIENCE: YOUR HELP NEEDED

Michelle Power from Macquarie University and her colleagues have entered The Sun Foundation annual Peer Prize for Women in Science. This is an annual prize for women researchers across Australia with a mission to accelerate open knowledge exchange and cross-disciplinary innovation.

Vote for parasitology and Michelle's work on Crypto and Giardia in Tassie devils for a peer prize for women in science in Australia (Better the devils parasites we know!). The judging of the prize is by peers / researchers.

https://www.thinkable.org/submission_entries/790Qkx8V

Check out all the entries by Women in Science in Australia and vote! the prize of \$20,000 is for the winner continue their research.

You need to register, it only takes a few minutes but they need to verify you as a researcher - see detail below.

<https://the-peer-prize-for-women-in-science-2017.thinkable.org>

Registering requires:

1. Signing up with an official organisation email (e.g. @sydney.edu.au or @petermac.org) and selecting the organisation from the drop-down menu. If the organisation is not in our list please include it in the comments section.
2. Selecting your field/s of study from the drop-down menu. Please choose the closest match if you cannot find your specific field OR if you think that we should have your field in our list please let us know in the comments section also.
3. Provide a working link (DOI or URL) to a peer-reviewed article that has been published in an official journal, and that you have authored/co-authored. We are not accepting conference articles/proceedings at this time.

Vale Lawson Soulsby (1926-2017)

Affectionately remembered as "Lord of the Worms", Baron Soulsby of Swaffham Prior (23rd June 1926- 8th May 2017) often referred to the year that he spent in Australia as the catalyst that triggered his passion for research.

On Monday 8 May 2017, Lawson Soulsby died peacefully at his home in Swaffham Prior with his daughter, Katrina, at his side.

Small of stature but a towering figure in global health, in veterinary and medical science, and in the veterinary profession, Lawson Soulsby was an enormously successful academic scientist and leader. He was widely loved and genuinely respected by all who came into contact with him. His achievements, especially in inspiring colleagues to view animal and human medicine as one health-related tapestry, have had a profound impact on global health and one medicine. Yet his humble beginnings endowed him with a respect for all, no matter the esteemed level he achieved in society.

During his career, he transformed the science of parasitology in at least two major academic departments – in Cambridge and Pennsylvania – and was regularly called upon to advise governments and academic bodies throughout the world including in Africa, Australia, Grenada, Mexico, Sri Lanka and the USA, as well as international bodies such as WHO, FAO, OIE and the UN. A Fellow of RSTMH from 1955, we are all greatly saddened by this news, and aware of the great loss that will be felt across many global health networks.

He was created a Life Peer in 1990 and worked actively in Parliament for over 25 years using his considerable intellect, his extensive knowledge and his warm personality to influence

government policy at the highest level. In 1998, he chaired the House of Lords Science & Technology Committee reporting on antimicrobial resistance (AMR) which anticipated the seriousness of this issue which we all now recognise. He went on to assist the WHO in developing the first global action plan on AMR in 2001 – due to be launched in Washington DC on 11 September but delayed by 'other events'.

He often referred to a sabbatical year in Australia in 1958 as the catalyst that triggered his passion for research. Following

his wife's death in 2014, he determined to create a way to offer a similar experience to young veterinary and medical colleagues through travelling fellowships. With the support of family and friends, he established the Soulsby Foundation in 2016 to combine his desire to inspire younger colleagues with his passion to promote the concept of "One World-One Health". The Foundation has thus become his lasting legacy, working in close association with other like-minded organisations including the Royal Society of Medicine (RSM), Royal College of Veterinary Surgeons (RCVS) and RSTMH.

In September 2016, RSTMH honoured him by hosting the First Soulsby Lecture, presented in Cambridge by Professor the Lord Trees. He would be very proud to learn that the Second Soulsby Lecture will be presented in September 2017 by Professor David Heymann CBE at the RSTMH Annual Meeting in London.

Lawson will be remembered by his many students around the world as an inspiring lecturer and mentor, treating each student as a unique individual. His pivotal text on parasitology "Helminths, Arthropods and Protozoa" earned him the affectionate title 'Lord of the Worms'.

This tribute to Lord Soulsby by Dr Judy McCarthur Clark was originally published on the Royal Society of Tropical Medicine and Hygiene website:

<https://rstmh.org/blog/2017/may/16/baron-soulsby-swaffham-prior-23-june-1926-%E2%80%93-8-may-2017>



Crossing Boundaries

Parasitologists at ANU are celebrating a new international graduate school

Parasitologists at the Australian National University are celebrating a new dual PhD program that pairs ANU with Humboldt University in Berlin, Germany.

The International Research Training Group, 'Crossing Boundaries: Molecular Interactions in Malaria' is a partnership which has been funded by the German Research Foundation.

This International Graduate School has two main objectives: Conducting cutting-edge research in biology, computation and medicine with the view to develop novel drugs and/or vaccines against malaria and providing a comprehensive program for PhD students to train independent, innovative and interdisciplinary researchers that are able to deal with complex problems and can perform on an international stage.

Students accepted to the program will

enrol at both universities, must spend at least 12 months in the other city, and will graduate with PhDs from both institutions. A feature of the degree is that students will have the opportunity to do industry internships, and collaborate with non-university companies and institutions, such as the World Health Organisation, NGOs, publishers and pharmaceutical companies.

The idea grew after **Associate Professor Alex Maier**, from the Research School of Biology at ANU, spent some time in Berlin on an Alexander von Humboldt Fellowship. He and his host Professor Kai Matuschewski felt that the synergy between ANU and Humboldt University was exceptional, and looked for ways to continue and broaden the collaboration.

"Humboldt University has very strong theoretical expertise in Malaria and various model systems", said Alex Maier. "They conduct field work in Africa and develop theoretical models. Equally, ANU has a significant amount of malaria researchers with very strong organismic expertise in the parasite and its mammalian hosts, as well as know-how in physiology and transporter

biology."

The first intake for the new graduate program will be in September, followed by another intake in February 2018. Click [here](#) for more information, and to apply for the program.

Story and image from ANU

<http://biology.anu.edu.au/news-events/anu-parasitologists-celebrate-new-international-graduate-school>





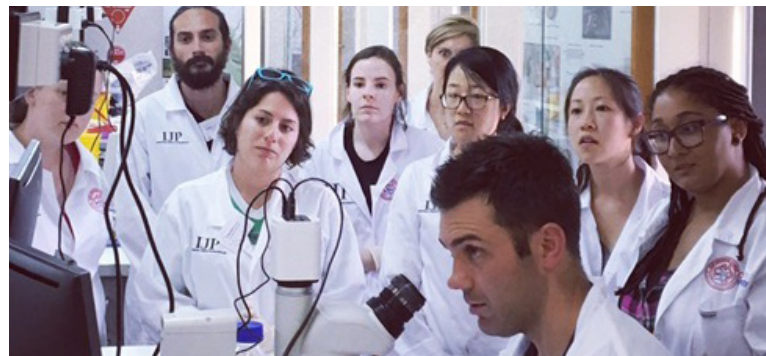
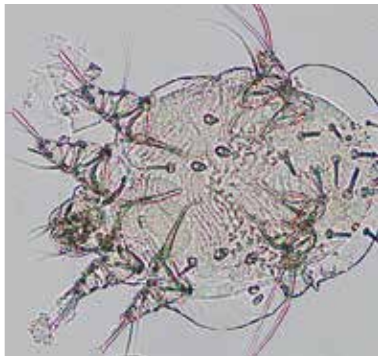
Over 25
experts
in the field
share their
passion



2017

Concepts in Parasitology

**A two-week course
for Postgraduates
and Early Career
Researchers**



**26 November -
9 December 2017**

Australian
National
University
Kioloa Coastal Campus

**Application deadline
7th July 2017**

For more information, see our website
parasite.org.au/education/concepts-in-parasitology
or e-mail alex.maier@anu.edu.au



Concepts covered:

Evolution,
Drug discovery
Cell biology,
Immune responses,
Diagnostics,
Bioinformatics
and many more



Outreach

The ASP's Queensland State Representative, Gill Fisher, reports on World Malaria Day activities at Griffith University.



The Griffith Institute for Drug Discovery (GRIDD) celebrated World Malaria Day (WMD) 2017 by hosting various outreach events and activities.

On the 26th April a sausage sizzle and fundraiser was held to raise malaria awareness. Over 50 Griffith University staff and students attended the event and over \$500 was raised. A mosquito bed net was erected on the day and each donation received was symbolised by attaching a peg/paper mosquito to the bed net. The funds raised along with an extra \$300, raised by malaria researchers at QIMR Berghofer (via a cyclathon; total >\$800) were donated to Rotarians against Malaria (RAM) to support the "Chasing Malaria Project" in PNG. This project is trialling surveillance to identify case clusters and direct action in those cluster areas to control malaria.

Amongst the highlights of the day were the yummy malaria themed cupcakes (kindly donated by Mad Batter Cakes) and the 'Mozzie Art' craft table.

In addition to the days celebrations we

also hosted several outreach activities to engage the broader community. School outreach packs containing educational material and activities about malaria (cross word, word finder, colouring in book, etc) were distributed to 140 children (8-12 yrs) in the Brisbane and surrounding suburbs. An online quiz to educate and test knowledge about malaria was also hosted and completed by ~100 participants. A 'Mosquito Art' activity and competition was also held and we have had some very imaginative entries with the winner to be announced in June. The winner will receive a \$50 iTunes voucher, and will have their mosquito photo featured in the ASP Newsletter.

I would like to thank the ASP and Mad Batter cakes for sponsoring this event and also to RAMs for providing the malaria colouring books for the school outreach packs. I would also like to thank my co-organisers Tina Skinner-Adams, Leo Lucantoni, Kathy Andrews and the members of the Tropical Parasitology Laboratory for all of their help in making this event a huge success.

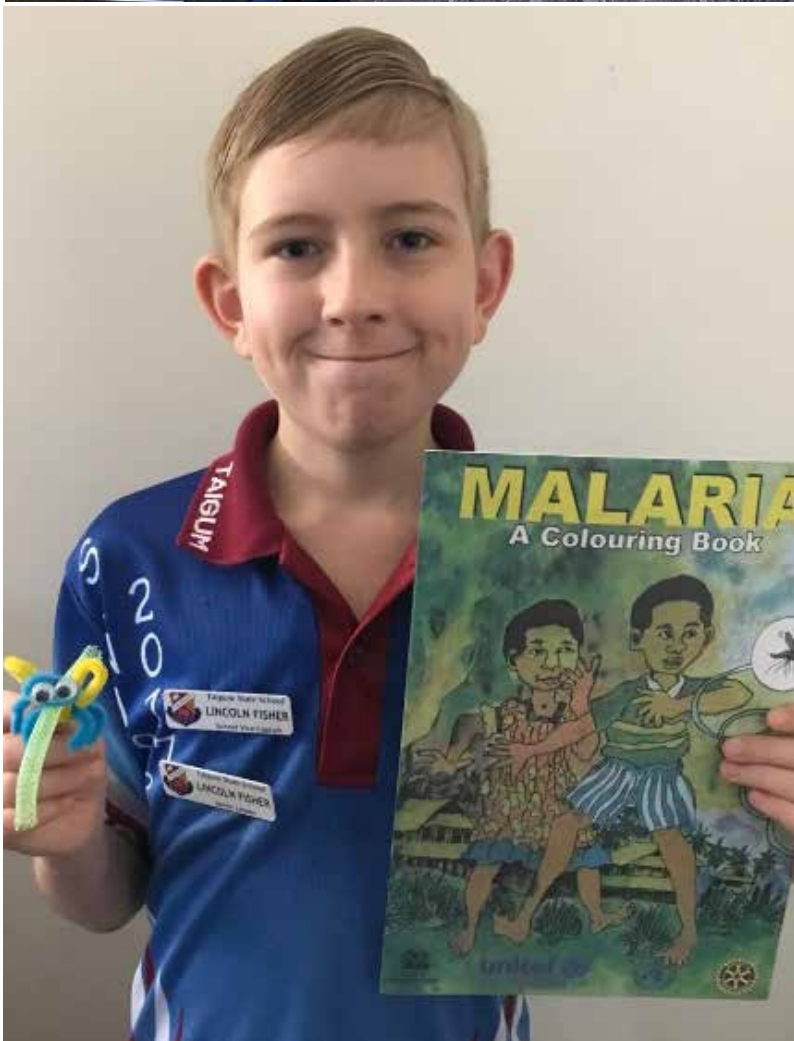
The images on the next page (clockwise from top left):

Malaria themed cupcakes kindly donated by Mad Batter cakes
<http://madbattercakes.com.au/>

Dr Todd Shelper (GRIDD) attaching his mosquito to the bed net, a symbol of his WMD 2017 donation

WMD 2017 Mosquito Art

Taigum State School vice-captain Lincoln Fisher, who participated in WMD 2017 along with 60 of his year six classmates.



Invisible Asia-Pacific Malaria project

The following piece was written by Prof. J. Kevin Baird, Ph.D., FASTMH (University of Oxford and Eijkman Institute for Molecular

Biology, Jakarta, Indonesia) and describes the Invisible Asia-Pacific Malaria project that Pearl has been photographing.

Most of us think of malaria as an African problem. We tend to see malaria as a consequence or symptom of the poverty, geographic isolation, chronic conflicts, and poor economic development that hinders human progress on that continent more than on others. Malaria certainly thrives where impoverished people struggle for access to good healthcare, and malaria is indeed a very serious problem in Africa.

The Asia-Pacific sharply contrasts with Africa – booming economies, hundreds of millions lifted out of poverty, highly developed transportation and telecommunications links, and relative peace and stability. Among the 20 most powerful national economies (members of the influential G20) six are in the Asia-Pacific. Asian schools produce students representing nations that consistently occupy the top 5 ranks in abilities in mathematics, reading, and science. The Asia Pacific harvests extraordinary wealth by exceptionally well-educated populations. Surely, one may think, there is no place for malaria in such a dynamic and successful region, but malaria today in the Asia Pacific is pervasive, diverse, and invisible.

Despite the long march of extraordinary economic and political progress over the past half-century, malaria in the Asia-Pacific remains a very significant public health threat and burden. Over 2 billion Asians live at risk of endemic malaria, many tens of millions are infected (perhaps as many as several hundred million) each year and tens of thousands of those do not survive (perhaps as many as several hundred thousand). We cannot be sure of those numbers because the people who live with malaria in the Asia-Pacific are the least visible – the most isolated, poor, and voiceless. This exhibition of the photographic art of Pearl Gan is about them.

In 30 years of working on malaria in the Asia Pacific, I often requested of my local health authority hosts, "Let's go where your malaria problem is the worst." This became a familiar journey – paved road became gravel, gravel became dirt, dirt road became impassable. Malaria was its worst where people were isolated and hard to reach. It made their access to economic opportunity difficult, and access to healthcare even harder. This is

where malaria lives in the Asia Pacific, the far-flung islands and villages beyond the pavement where people live quietly off our modern "grid" and endure the Asia Pacific malaria problem. The faces, lives, and suffering captured in Pearl's images struck me as immediately familiar – Yes, these are the people of malaria that I know.

Pearl traveled the backwaters of Asia Pacific, places just like where very many other Asians live – rural, isolated, and relatively impoverished. Her images shatter the caricature of the Asia Pacific of gleaming skyscrapers looming over huge modern cities teeming with over-achieving harried people engaged in industry, commerce and the broader world. We see people all of us can recognize as deeply human by the way Pearl captured them in work, play, warmth, and illness. Their rural environment and isolation, less familiar to us, limits their economic opportunities and access to healthcare. Endemic malaria stalks them, sickening and sometimes killing them. It is very hard for the rest of us to take notice of that because medical investigation and epidemiological reporting of illness and death in rural Asia-Pacific is rarely accomplished by thinly stretched or poorly developed public health services. This is invisibility – where malaria morbidity and mortality cannot be perceived and grounded in a knowable reality. Beginning to undo that is the point of Pearl's art.

3 August 2016, Prof. J. Kevin Baird, Ph.D., FASTMH, University of Oxford and Eijkman Institute for Molecular Biology



The images on this and following three pages copyright Pearl Gan, Singapore 2017, from the Asia Malaria images exhibition.

An interview with photographer Pearl Gan



Pearl Gan is a Singapore based photographer. Her passion is mainly documentary, portraiture and street photography. Pearl tries to capture everyday people of everyday life. Her works usually capture spontaneous moments. In 2015 Pearl became involved in the "Invisible Asia-Pacific Malaria"

project with Professor Kevin Baird from the University of Oxford and Eijkman Institute for Molecular Biology. Pearl has been photographing this important malaria research and those that are affected by it and in this interview Pearl talks to Lisa Jones about her photography and links to malaria research.

Pearl, tell us why it is so important to photograph this research and what can we learn from it?

Photo-documenting the "faces" of malaria is important to help people across the world see past the invisibility of these isolated and impoverished communities in Asia Pacific.

Art is the creative medium for communication of science. If science is part of an artistic discourse, then art is the engagement medium. It is like an equation and with the right formula: we make the union between art and science work to create a special experience. I see myself as a matchmaker; pairing art and science together into a harmonious union.

Lisa: Pearl, tell us about how you became interested in working with malaria re-search and the people affected by malaria?

Pearl: I met Professor Kevin Baird in September 2015. Kevin saw something in my photographic work that resonated with him and he quickly proposed a collaboration to couple my photography with his Malaria research. This project was aimed at bringing awareness to the "invisibility" of the disease in Asia Pacific. With support of the Oxford University Clinical Research Unit I went on my first trip in December 2015 during the Christmas period and spent my holidays taking photographs in Mae Sot, Thailand. Since that visit I have also been to the Alor Island in Indonesia and Pailin in Cambodia.

The trips widened my limited knowledge of the Malaria problem in Asia Pacific. I witnessed chronic suffering amongst people who are disadvantaged by the poverty and challenges in accessing medical care in remote locations, thus narrowing their chance for survival.

The project is very humbling for me. I am proud to be involved in this non-profit, humanitarian project and to be part of this Malaria Discovery Journey. Such documentation is important as it shows the World that Malaria in Asia Pacific is not a myth but a fact. In many of the places I visited government health-care amenities are limited. Malaria patients often have to travel long distances to the hospitals to get medical attention they required.

We hope that the collection of photographs will raise awareness of the malaria burden suffered by the inhabitants of these remote communities.

What do you see as the future for this type of collaboration between scientists and artists?

An artist's hand can often make the story of scientific discovery more compelling and results more widely understandable. A quote from Da Vinci rings true for me: "Art is the queen of all sciences communicating knowledge to all the generations of the world."

"We hope that the collection of photographs will raise awareness of the malaria burden."

Finally where can our members see your photographs on display?

Our upcoming exhibition this September at Singapore's National Library will be the first full showing of the highlights from our photographic collection.

Level 8 The Promenade, National Library Board, 100 Victoria Street, Singapore 188064

September 2-29, 2017

Our project website
www.asiamalariaimages.com

Asia-Malaria Images

Photographs by Pearl Gan



Asia-Malaria Images - Photographs by Pearl Gan continued





Asia-Malaria Images - Photographs by Pearl Gan continued





Asia-Malaria Images - Photographs by Pearl Gan continued





Can you name these Fellows of the Society?

Senior members of the ASP will recognize the faces below immediately - all are luminaries of the Society's early years. Younger members may be less familiar with some of them.

We are continuing to add more detail to our "Fellows of the Society" pages. As they grow over the coming months, these pages should form a fascinating biographical archive of some of the leading Australian Parasitologists of the last fifty years.

If you have any suggestions for the improvement of these pages, please write to Lisa Jones at lisa.jones1@jcu.edu.au



To put names to faces and to read a brief biography of each Fellow, visit parasite.org.au/the-society/fellows-of-the-society/

The answers can also be found at the bottom of page 31 of this newsletter

News from the ASP Network for Parasitology

Welcome

Conference News

We are looking forward to this year's ASP Conference, which will take place at the Fairmont Resort in Leura in the Blue Mountains from June 26-29, 2017, starting with a welcome reception in the Ballroom of The Carrington Hotel in Katoomba.

The conference program is online and will always include any recent updates <https://www.conftool.net/parasitology2017/sessions.php>. Please visit the conference website (www.parasite.org.au/2017conference) for all the latest conference news.

We have a great line-up of national and international speakers already confirmed for various exciting themes covering, as always, the full spectrum of parasitological research, including:

Plenary Lectures – Parasitology: An Industry Perspective

- Norbert Mencke (Bayer Animal Health, Germany)
- Vern Bowles (Hatchtech, Australia)
- Aleta Knowles (Virbac, Australia)

Plenary - ASP Invited International Lecturers

- Carol Sibley (University of Washington, USA)
- L. David Sibley (Washington University in St Louis, USA)

Plenary Elsevier Parasitology Lecture Series

IJP Lecturer

- Jacqueline Matthews (Moredun Research Institute, UK)

IJP: Drugs & Drug Resistance Lecturer

- Ron Kaminsky (Drug Discovery and Parasitology, Germany)

IJP Parasites and Wildlife Lecturer

- Christopher Cleveland (University of Georgia, Athens, U.S.A.)

Symposia themes and invited speakers

Toxoplasmosis

- Giel van Dooren (The Australian National University, Australia)

Malaria Control

- Tom Burkot (James Cook University, Australia)

Diagnostics

- Graham Robertson (Concord Repatriation General Hospital, Australia)
- Harsha Sheorey (St Vincent's Hospital, Melbourne, Australia)
- Andreas Latz (Novatec Immunodiagnostics, Germany)

Companion Animals

- Christian Epe (Boehringer Ingelheim, USA)

Aquaculture

- Barry Hosking (Elanco Animal Health, Australia)

Life Inside a Red Blood Cell

- Brian Cooke (Monash University, Australia)

Wildlife

- Andrew Thompson (Murdoch University, Australia)
- Stephanie Godfrey (University of Otago, N.Z.)

Drugs and Drug Resistance

- Kevin Saliba (The Australian National University, Australia)
- Andrew Kotze (CSIRO, Australia)

Livestock

- Ala Lew-Tabor (The University of Queensland, Australia)
- Peter Rolls (Biosecurity Queensland, Australia)
- Abdul Jabbar (University of Melbourne)

Education

- Shokoofeh Shamsi (Charles Sturt University, Australia)
- Barney Dalgarno (Charles Sturt University, Australia)
- Jan Slapeta (The University of Sydney)
- Abdul Jabbar (The University of Melbourne)

Don't forget to book your seat on the free bus between Katoomba and Leura

during the conference and the coaches transporting delegates from Sydney to the Blue Mountains on Monday and back again on the Friday. Check the website for details of where to catch those buses and what time. The Blue Mountains is also accessible by road, train or bus.

Surprise your colleagues and fellow conference delegates with your amazing talent at the 2017 ASP Annual Conference Talent Show on Tuesday 27th June 2017, following the "Highlights and Snapshots" conference session at 5pm at the 2017 ASP Conference in Leura. Email Lisa (parasitologycommunicator@gmail.com) to register your act. [Download the flyer](#) from the conference website for the 2017 ASP Annual Conference Talent Show.

The 2017 Early Career Researcher Event is supported by Virbac with the theme "Careers with Industry" and takes place on Wednesday June 28, 2017 evening. Places are limited for this event so please make sure you have booked your ticket through the conference registration system.

As part of the strategic planning review meeting the ASP Education Committee has organised a workshop to "Create interactive and engaging learning resources for Parasitology Education" at the 2017 ASP Conference. This workshop is intended for a small group of ASP lecturers to gain an overview of the tools that they will use to create ASP Parasitology Education modules on various topics to be delivered by ASP members. This workshop is an introduction to BEST Network and its tools, including the Slice image bank and the Adaptive eLearning Platform (AeLP), an authoring platform licenced from Smart Sparrow. Workshop numbers are strictly limited, please email parasitologycommunicator@gmail.com to register to attend prior to the conference. During the conference please see the registration desk to confirm if there are any available spots.

Everyone is welcome to join the Outreach

Forum on Thursday 29th June at the 2017 ASP conference. Chaired by Sarah Preston, Federation University, this will be an informal discussion for all parasitologists who are interested in science based outreach programs. Bring your ideas, demos, stories and enthusiasm to share amongst the group. Please email parasitologycommunicator@gmail.com before the conference to register or see the conference registration desk to add your name to the attendees list.

The 2017 ASP AGM will take place on Thursday June 29, 2017 from 330pm – 530pm at the Fairmont Resort Blue Mountains. ASP Students in receipt of a 2017 ASP Student Conference Grant are required to attend.

Once again we would like to acknowledge the generous support of our conference sponsors, thanks to Elsevier Parasitology, the International Journal for Parasitology (IJP), Virbac, Bayer, Boehringer Ingelheim and Novatec for their support.

Please contact the Conference Coordinator, Lisa Jones by email (lisa.jones1@jcu.edu.au) or telephone +61 (0)7 4232 1311 with any queries.

ASP Researcher Exchange, Travel and Training Award winners

JD Smyth Travel Award winners

Kit Kenedy, PhD student, to attend 2017 "Biology of Parasitism – Modern Approaches" course, Marine Biology Laboratory in Woods Hall in Massachusetts, and Researcher Exchanges with Assoc. Prof. Audrey Odom & to Washington University School of Medicine St. Louis, Missouri: August 12th–19th and Ass/Prof. Ellen Yeh Stanford University San Francisco, California: August 19th - 26th

Anna Sexton, PhD Candidate, Monash University, to attend Biology of Parasitism course, Wood's Hole, USA

ASP Researcher Exchange, Travel and Training Award winners:

Christopher Hart (PhD student) and **Dr Tina Skinner Adams**, GRIDD, Griffith University, for a researcher exchange to visit Sam Abraham and Andrew Thompson Murdoch University in September 2017 for anti-Giardia drug discovery research

The deadline for the last round of ASP Researcher Exchange, Travel and Training Awards is 29 September 2017. Apply

online <http://parasite.org.au/awards/jd-smyth-postgraduate-travel-awards/>

Congratulations to Professor Geoff McFadden

Professor Geoff McFadden of The University of Melbourne has been awarded an ARC Laureate Fellowship worth \$3,248,822.

The project aims to particularly explore sexual gene inheritance in *Plasmodium*, a representative of a large group of human and animal parasites. *Plasmodium* must have a sexual exchange of genes in the mosquito for the transfer of disease to a new host. This project will investigate the fate and behaviour of *Plasmodium* genes during reproduction; the differing chromosome states resulting from sexual genetic processes and the asymmetrical inheritance of some *Plasmodium* genes. The project is expected to advance Australia's ability to understand the reproduction and survival of these parasites in their mosquito vector and develop cutting-edge genetic tools that will advance the microbial genetics discipline globally. This may ultimately lead to biotechnology and biomedical outcomes.

**Cheers,
Nick and Lisa**

Closing dates for ASP awards

ASP Fellowships
9 January 2018

ASP Researcher Exchange, Travel and Training Awards & JD Smyth
29 September 2017

Bancroft-Mackerras Medal for Excellence
30 September 2017

More information
www.parasite.org.au

ASP Outreach Funding

ASP members are encouraged to apply for ASP funding to support outreach in their state. Up to \$500 per event is available with a total per state or territory of \$2000 per calendar year. Initiatives should foster outreach by members and advance the field of parasitology. The funds can be used to support a wide range of activities - from seminars and symposia to "beer and nibbles" networking sessions of State members or any other parasitology-related event.

Submit your proposal to your ASP State/Territory Representative for consideration.

JD Smyth Postgraduate Travel Award Report

Jessica Johnson-Mackinnon from the University of Tasmaniat reports on her fruitful trip to Canada.

I would like to extend a huge thank you to the ASP for all the support I have received since starting my PhD almost three years ago. The ongoing support has been instrumental in my growth as a researcher, allowing me to travel, network, collaborate and present my research on numerous occasions. This last time around, I was fortunate enough to be awarded the JD Smyth Postgraduate Student Travel Award, which I used to travel to Campbell River, Canada for a research exchange/internship.

I worked with the British Columbia Center for Aquatic Health Sciences (CAHS) with Dr. Ahmed Siah. CAHS is a private lab that works with the aquaculture industry doing bioassays, enzyme activity tests, immunotests, molecular tests, plankton analysis, sea lice identification/ enumeration, virology and fish health and welfare assessments. Along with routine work, the lab also does research around fish welfare such as Kudoa mitigation. CAHS agreed to take me on for two months so that I could test a new method I had developed for the detection of *Neoparamoeba perurans*, the amoeba

responsible for Amoebic Gill Disease (AGD), in environmental sediment samples from salmon farming sites along the coast of Vancouver Island. The sediment came from several locations in a variety of farming phases, ranging from active to fallowed, and were generously provided by Marine Harvest Canada. I ended up receiving over 300 sediment samples. My days were spent navigating the ups and downs of translating a theoretical protocol developed in one lab to a viable

deadlines loomed large in such a short time period, but in the end perseverance won the day and the trip was a success. I will be publishing the results of the work in the coming months.

During my stay, I was also invited to speak at a two day workshop: Gill Health in Cultured Salmon: Current Knowledge & Future Directions. The workshop was hosted by the B.C.

Salmon Farmers Association and sponsored by Fisheries & Oceans Canada, BC Salmon Farmers Association, Skretting North America, Pharmaq AS, Syndel Laboratories Ltd., Elanco Canada Ltd., Merck Animal Health Canada & CAHS. The workshop was a fantastic experience and excellent exposure. Attendees comprised mainly individuals from the salmon farming companies in the area along with veterinarians, scientists from the Department of Fisheries and Oceans (DFO), and scientists from collaborating industries such as Skretting and Pharmaq. Included as part of the workshop was an open floor question and suggestion period where all participants were invited to ask questions and suggest where knowledge gaps in our understanding of salmon welfare lay in order to help form future research directions.

This experience allowed me make new connections with leaders in salmon research in Canada, gain a better understanding of how my research can fit in with both industry and government and a new found confidence in myself as a researcher heading into the completion of my PhD.



working method in another. This meant troubleshooting PCR machines, learning the quirks of new to me lab equipment and processing some, shall we say... smelly, sediment samples. Some days were more challenging than others, and

IJP

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47.07 (June 2017)

**Singapore Malaria Network
(SingMalNet) 2016 Special
Issue**

Current Opinions

Asia-Pacific malaria is singular, pervasive, diverse and invisible. J. Kevin Baird

The unhealthy attraction of *Plasmodium vivax* to reticulocytes expressing transferrin receptor 1 (CD71). Benoit Malleret, Laurent Rénia, Bruce Russell

Invited Reviews

Tools for attenuation of gene expression in malaria parasites. Philip J. Shaw, Aiyada Aroonsri

Epigenetic landscapes underlining global patterns of gene expression in the human malaria parasite, *Plasmodium falciparum*. Archana P Gupta, Zbynek Bozdech

The s48/45 six-cysteine proteins: mediators of interaction throughout the *Plasmodium* life cycle. Silvia A. Arredondo, Stefan H. I. Kappe

Genomics and epigenetics of sexual commitment in *Plasmodium*. D. P. Bechetsi, A. P. Waters

Original Research Article

Accelerating the clinical development of protein-based vaccines for malaria by efficient purification using a four amino acid C-terminal 'C-tag'. Jing Jin, Kathryn A. Hjerrild, Sarah E. Silk, Rebecca E. Brown,

Geneviève M. Labbé, Jennifer M. Marshall, Katherine E. Wright, Sandra Bezemer, Stine B. Clemmensen, Sumi Biswas, Yuanyuan Li, Aadil El-Turabi, Alexander D. Douglas, Pim Hermans, Frank J. Detmers, Willem A. de Jongh, Matthew K. Higgins, Rebecca Ashfield, Simon J. Draper



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IJPP INTERNATIONAL
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Drugs and Drug Resistance

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**Editors In Chief: Andrew
Kotze & Kevin Saliba**

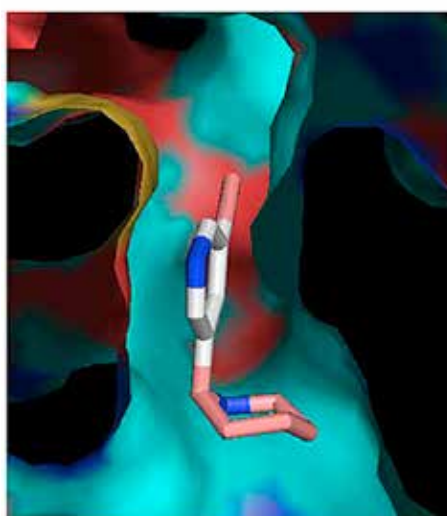
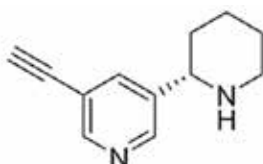
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can promote the journal and
all of the wonderful research
published through *IJPP-DDR*

Featured articles from ASP members in International Journal for Parasitology: Drugs and Drug Resistance, Volume 7, Issue 1, April 2017

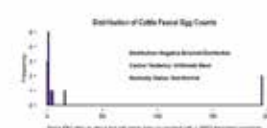
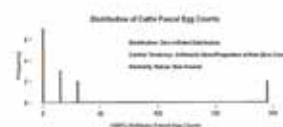
Jéssica A. Jesus, Thais N. Fragoso, Eduardo S. Yamamoto, Márcia D. Laurenti, Marcelo S. Silva, Aurea F. Ferreira, João Henrique G. Lago, Gabriela S. Gomes, Luiz Felipe D. Passero, [Therapeutic effect of ursolic acid in experimental visceral leishmaniasis](#), International Journal for Parasitology: Drugs and Drug Resistance, Volume 7, Issue 1, April 2017, Pages 1-11, ISSN 2211-3207, <https://doi.org/10.1016/j.ijppdr.2016.12.002>.

Fudan Zheng, Xiangwei Du, Tsung-Han Chou, Alan P. Robertson, Edward W. Yu, Brett VanVeller, Richard J. Martin, [\(S\)-5-ethynyl-anabasine, a novel compound, is a more potent agonist than other nicotine alkaloids on the nematode Asu-ACR-16 receptor](#), International Journal for Parasitology: Drugs and Drug Resistance, Volume 7, Issue 1, April 2017, Pages 12-22, ISSN 2211-3207, <https://doi.org/10.1016/j.ijppdr.2016.12.001>.



Vanina A. Campo, [Comparative effects of histone deacetylases inhibitors and resveratrol on Trypanosoma cruzi replication, differentiation, infectivity and gene expression](#), International Journal for Parasitology: Drugs and Drug Resistance, Volume 7, Issue 1, April 2017, Pages 23-33, ISSN 2211-3207, <https://doi.org/10.1016/j.ijppdr.2016.12.003>.

J.W. Love, L.A. Kelly, H.E. Lester, I. Nanjiani, M.A. Taylor, C. Robertson, [Investigating anthelmintic efficacy against gastrointestinal nematodes in cattle by considering appropriate probability distributions for faecal egg count data](#), International Journal for Parasitology: Drugs and Drug Resistance, Volume 7, Issue 1, April 2017, Pages 71-82, ISSN 2211-3207, <https://doi.org/10.1016/j.ijppdr.2017.01.002>.



John M. Pisciotto, Peter F. Scholl, Joel L. Shuman, Vladimir Shualev, David J. Sullivan, [Quantitative characterization of hemozoin in Plasmodium berghei and vivax](#), International Journal for Parasitology: Drugs and Drug Resistance, Volume 7, Issue 1, April 2017, Pages 110-119, ISSN 2211-3207, <https://doi.org/10.1016/j.ijppdr.2017.02.001>.

Bracken F. Roberts, Yongsheng Zheng, Jacob Cleaveleand, Sukjun Lee, Eunyoung Lee, Lawrence Ayong, Yu Yuan, Debopam Chakrabarti, [4-Nitro styrylquinoline is an antimalarial inhibiting multiple stages of Plasmodium falciparum asexual life cycle](#), International Journal for Parasitology: Drugs and Drug Resistance, Volume 7, Issue 1, April 2017, Pages 120-129, ISSN 2211-3207, <https://doi.org/10.1016/j.ijppdr.2017.02.002>.

**Each image relates to the preceding
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Editors: R.C. Andrew Thompson, Lydden Polley

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IJP-PAW has a Facebook page, please check it out and like us and some of our articles so we can promote the journal and all of the wonderful research published through *IJP-PAW*



Articles published in International Journal for Parasitology: Parasites and Wildlife, Volume 6, Issue 1, April 2017

The final publication listed is from Australian authors and includes ASP Members Tom Cribb (University of Queensland) and Rebecca Traub (University of Melbourne).

Giovanni Poglayen, Francesca Gori, Benedetto Morandi, Roberta Galuppi, Elena Fabbri, Romolo Caniglia, Pietro Milanese, Marco Galaverni, Ettore Randi, Barbara Marchesi, Peter Deplazes, [Italian wolves \(*Canis lupus italicus* Altobello, 1921\) and molecular detection of taeniids in the Foreste Casentinesi National Park, Northern Italian Apennines](#), International Journal for Parasitology: Parasites and Wildlife, Volume 6, Issue 1, April 2017, Pages 1-7, ISSN 2213-2244, <https://doi.org/10.1016/j.ijppaw.2017.01.001>.

Junqiang Li, Haiju Dong, Rongjun Wang, Fuchang Yu, Yayun Wu, Yankai Chang, Chenrong Wang, Meng Qi, Longxian Zhang, [An investigation of parasitic infections and review of molecular characterization of the intestinal protozoa in nonhuman primates in China from 2009 to 2015](#), International Journal for Parasitology: Parasites and Wildlife, Volume 6, Issue 1, April 2017, Pages 8-15, ISSN 2213-2244, <https://doi.org/10.1016/j.ijppaw.2016.12.003>.

Heidi Larsen Enemark, Antti Oksanen, Mariann Chriél, Jakob le Fèvre Harslund, Ian David Woolsey, Mohammad Nafi Solaiman Al-Sabi, [Detection and molecular characterization of the mosquito-borne filarial nematode *Setaria tundra* in Danish roe deer \(*Capreolus capreolus*\)](#), International Journal for Parasitology: Parasites and Wildlife, Volume 6, Issue 1, April 2017, Pages 16-21, ISSN 2213-2244, <https://doi.org/10.1016/j.ijppaw.2017.01.002>.

[ijppaw.2017.01.002](https://doi.org/10.1016/j.ijppaw.2017.01.002).

Felipe Dargent, André Morrill, Ray T. Alisauskas, J. Daniel McLaughlin, Dave Shutler, Mark R. Forbes, [Lesser snow goose helminths show recurring and positive parasite infection-diversity relations](#), International Journal for Parasitology: Parasites and Wildlife, Volume 6, Issue 1, April 2017, Pages 22-28, ISSN 2213-2244, <https://doi.org/10.1016/j.ijppaw.2017.01.003>.

John J. Debenham, Kristoffer Tysnes, Sandhya Khunger, Lucy J. Robertson, [Occurrence of *Giardia*, *Cryptosporidium*, and *Entamoeba* in wild rhesus macaques \(*Macaca mulatta*\) living in urban and semi-rural North-West India](#), International Journal for Parasitology: Parasites and Wildlife, Volume 6, Issue 1, April 2017, Pages 29-34, ISSN 2213-2244, <https://doi.org/10.1016/j.ijppaw.2016.12.002>.

Nicholas R. Dunham, Cassandra Henry, Matthew Brym, Dale Rollins, R. Gayman Helman, Ronald J. Kendall, [Caecal worm, *Aulonocephalus pennula*, infection in the northern bobwhite quail, *Colinus virginianus*](#), International Journal for Parasitology: Parasites and Wildlife, Volume 6, Issue 1, April 2017, Pages 35-38, ISSN 2213-2244, <https://doi.org/10.1016/j.ijppaw.2017.02.001>.

Phoebe A. Chapman, Helen Owen, Mark Flint, Ricardo J. Soares Magalhães, Rebecca J. Traub, Thomas H. Cribb, Myat T. Kyaw-Tanner, Paul C. Mills, [Molecular epidemiology and pathology of spirorchiid infection in green sea turtles \(*Chelonia mydas*\)](#), International Journal for Parasitology: Parasites and Wildlife, Volume 6, Issue 1, April 2017, Pages 39-47, ISSN 2213-2244, <https://doi.org/10.1016/j.ijppaw.2017.03.001>.

Previous page: Italian wolves
(see Poglayan et al)

Below: intestinal protozoa in nonhuman primates in China
(see Junqian Li et al)



Jobs



PhD Scholarship in quantitative biology

A Ph.D. scholarship offered to an exceptional student, to investigate the mathematical biology of host-parasite interactions. This scholarship will be offered to an enthusiastic and hard-working candidate, who wishes to forge a career in science. Applicants should have a high level of achievement, including a first class honours degree or equivalent.

Take a quantitative approach to studying the interaction between livestock and their parasites, especially sheep and the nematode *Teladorsagia circumcincta*. You will join a group of quantitative and molecular biologists. The research will include the identification of genes underlying resistance to parasitic infection, bioinformatic analysis in both host and parasite and mathematical modelling of the protective immune response. The project will involve bioinformatic and statistical analysis as well as mathematical modelling. The aim is to enhance our understanding of the mechanisms that underlie resistance to parasite infection and use this understanding to develop sustainable methods of disease control.

Benefits:

- a La Trobe Research Scholarship for three years, with a value of \$26,682 per annum, to support your living costs (under review)
- opportunities to attend national and international conferences
- opportunities to research and publish in cutting edge science.
- opportunities to work with La Trobe's outstanding researchers, and have access to our suite of professional development programs

How to apply: If you wish to apply for this Scholarship email Professor M. J. Stear at m.stear@latrobe.edu.au with a full CV including 3 referees, and a cover letter outlining why you would like to be considered for this scholarship. The university will carefully review your application and consider you for this Scholarship. You will be advised of an outcome by December 2017.

Closing date: Applications close 1 October 2017, unless filled sooner.

Further information: La Trobe Graduate Research School grs@latrobe.edu.au

PhD Scholarship in immunoparasitology

A Ph.D. scholarship offered to an exceptional student, to investigate host-parasite interactions. This scholarship will be offered to an enthusiastic and hard-working candidate, who wishes to forge a career in science. Applicants should have a high level of achievement, including a first class honours degree or equivalent.

Explore host-parasite interactions, especially the interaction between domestic sheep and the nematode *Teladorsagia circumcincta*. The aims of the research are to identify the molecular targets of the protective IgA response; to determine the mechanisms of action and to explore the evasion mechanisms used by the parasite. The research will involve a variety of techniques including ELISA, Western blotting, capillary electrophoresis, mass spectrometry, cloning, expression and protein conformation, enzyme kinetics and bioinformatics. The candidate is expected to know some of these procedures and training will be supplied as necessary.

Benefits:

- a La Trobe Research Scholarship for three years, with a value of \$26,682 per annum, to support your living costs (under review)

- opportunities to attend national and international conferences
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Further information: La Trobe Graduate Research School grs@latrobe.edu.au

Technical officer

Location: Melbourne (Bundoora)

Department: AgriBio, Department of Animal, Plant and Soil Sciences, School of Life Sciences, College of Science, Health & Engineering.

Employment: Full-Time for two years, Higher Education Officer (HEO5) t

Position: Content

The position: The College of Science, Health & Engineering comprises 9 Schools and 16 Departments across La Trobe's multi-campus operations. The College offers a range of general and specialist undergraduate and postgraduate courses that are rigorous and attuned to meeting the needs of students in ensuring their readiness to work in changing environments. Our courses are

Jobs continued

appropriately linked to emerging trends and critical global issues. The College researchers have an outstanding reputation for their innovation and contribution to society and are at the forefront of building strong relationships with industry partners.

The appointee will be for a highly organised team player willing to contribute to all aspects of research in the laboratory. The ideal candidate will have a good honours degree in immunology, parasitology, animal

science or a related subject. He or she will work on a project looking at host-parasite interactions, especially the interaction between domestic sheep and the nematode *Teladorsagia circumcincta*. The aims of the research are to identify the molecular targets of the protective IgA response; to determine the mechanisms of action and to explore the evasion mechanisms used by the parasite. The research will involve a variety of techniques including ELISA, Western blotting, capillary electrophoresis,

mass spectrometry, cloning, expression and protein conformation, enzyme kinetics and bioinformatics. The candidate is expected to know some of these procedures and training will be supplied as necessary.

Enquiries: Michael Stear, Professor of Animal Biology, telephone (03) 9032 7448

ASP Undergraduate Prize



University of Queensland

University of Queensland student Kate van Haeringen received the ASP Undergraduate Prize for outstanding parasitology student at the UQ School of Chemistry & Molecular Biosciences' annual awards evening on 16 May 2017.

Kate is pictured left being presented with her prize by Head of School, Professor Paul Young.

\$400 Undergraduate Prizes

The Australian Society for Parasitology is pleased to announce that it will be offering undergraduate student prizes of \$400 each to Australian Universities identified as offering a suitable course in parasitology, for presentation to the best undergraduate student in parasitology (highest passing mark/grade). The course(s) must be taught by a financial member of the ASP (of more than one year standing), and must comprise at least 30% parasitology. **Requests for 2017 prizes must be made by the eligible University to the ASP Treasurer by the 30th September 2017. Please complete the online application form:**

www.parasite.org.au/awards/asp-undergraduate-prizes/

Parasites: Friends Without Benefits (Part 3)

We continue the transcript of Peter O'Donoghue 2013 parasitology outreach event, Science in the Pub, a social interactive occasion where (POD points out) many liberties were taken with content and language in the pursuit of entertainment,

In part 1 and 2, we described six core concepts of parasitology:

1. Parasites are friends without benefits!
2. The pathology of parasitism is cumulative.
3. Parasites exhibit tissue tropism.
4. Parasites undergo cyclic transmission between hosts!
5. Parasites discriminate!
6. Differential diagnosis is difficult!

Here are some more...

7

Parasites are hard to control

Why? There are profound problems with each of the 3 control strategies.

Drug treatment (including chemotherapy to cure you after infection as well as chemoprophylaxis to prevent infections). Many drugs have been developed from plant extracts (logical as many plants have good chemical defences against parasites). However, the booming pharmaceutical industry of decades past is now restricted by fierce competition, smaller profit margins and dwindling discoveries. Over-use and under-dosing have also provided many opportunities for parasites to

experience sub-lethal drug concentrations and drug resistance is becoming widespread.

Vaccination (including anti-infection, anti-disease, and anti-transmission vaccines). There are many success stories for vaccines developed against diseases caused by bacteria and viruses, but few for those caused by the relatively more complex eukaryotic protozoa, helminths or arthropods (which infect other eukaryotes). In many cases, we do not know how the host-parasite immunological interactions work to provide protection, but they must be good as we are not all dying of parasitic diseases. Many parasitic diseases are self-limiting and moderated by host immune responses. There are even cases of premunitive (or concomitant) immunity whereby hosts harbour a few live parasites but are protected against subsequent super-infections (this is in contrast to sterile immunity whereby the pathogens are eradicated from the host). A good balance between parasite virulence and host immunity (the quintessential evolutionary arms race) is sometimes achieved as a state of enzootic stability (where neither host nor parasite is eliminated). There are a few success stories for anti-parasite vaccines which gives us hope for the future (e.g. irradiated lungworm larvae, coccidia vaccines, cysticercus oncosphere antigens).

Environmental management (any strategy designed to break the transmission cycle). There are many things that can be done to stop parasite transmission by changing the physical environment, changing processes and behaviours, and controlling biological entities (notably vectors). Huge advances have been made in disease control through water treatment, sewage treatment, improved hygiene, food inspection and preservation; particularly since urbanization where humans have become crowded into cities (formerly known as pest-holes of disease but still experiencing problems with urban ghettos, poverty, inadequate infrastructures, refugees and illegal residents). In many areas, social behaviours still persist

which are highly conducive to parasite transmission: such as the use of night soil (faces and urine collected overnight) to fertilize vegetable crops (despite more than adequate biocomposting processes), the preference for raw or rare meats by many groups (propagated by TV lifestyle/cooking shows) and even weird alternative medicines (such as frog poultices for wounds). It seems the hardest thing to do is to change human behaviour. We should all be able to:

- avoid coprophagy (do not eat poo) (thus breaking faecal-oral transmission)
- avoid haematophagy (do not get bitten) (thus breaking vector-borne transmission)
- undertake sensible zoophagy (cook food) (thus breaking predator-prey transmission)
- practice safe sex (use protection) (thus breaking venereal transmission)
- institute antenatal screening (thus reducing the risks of congenital transmission).

8

Parasite biodiversity is vast

It is very hard to estimate the total number of parasites species on planet Earth, considering we are still discovering them, many host species have yet to be examined, and there is no central data base. Nevertheless, it has been estimated that there are some 6 million parasite species in total, almost 1,000 species have been recorded in humans. Where do they all come from? If men are from

Parasites: Friends Without Benefits continued

Mars, and women are from Venus, where are parasites from? It is a brilliant time of discovery, and has been for the last century. We have exquisite techniques to detect and describe parasites and the taxonomic game is played by many. We have:

- splitters (identifying new species on the basis of minor differences),
- lumpers (collapsing species into single entities on the disbelief of their differences),
- voyeurs (spending their entire lives describing the genitalia of some obscure group of worms),

- empiricists (relying on experience)
- rationalists (relying on reasoning),
- alpha-numerical taxonomists (a dying breed who rely on size and appearance of a constellation of characters), and now
- molecular gel jockeys (who don't need to see whole parasites, just partial gene sequences to identify clades, groups, species, subspecies, strains, clones, lines, stocks)

Many strange names have emerged, although it is considered bad form to name them after yourself, but OK to name them after a friend, colleague or enemy.

Who can ever forget *Eutetrarhynchus odonoghuei*, a tapeworm of sharks – distinguished by the presence of multiple testes (I don't know whether to be flattered or annoyed by this honour, because all other species named in the paper had more testes). One thing we all agree on is the basic zoological division of parasitology into 3 main assemblages:

- single-celled parasites (protozoa)
- riggly worms (helminths)
- biting bugs (arthropods)

To be continued



State News

Queensland

CSIRO Brisbane

PhD student news

Ali Raza has completed his PhD studies under the supervision of **Andrew Kotze**, and co-supervisors **Steven Kopp** and **Abdul Jabbar**. His PhD thesis was entitled "The role of drug efflux systems in anthelmintic resistance in parasitic nematodes". Ali has now returned to a lectureship position in Pakistan.

A new PhD student, **Samantha Nixon**, has now started. Samantha will be studying the vast library of pharmacologically-active molecules in spider venoms to characterise molecules with anti-parasitic activity, with an interest in parasites of livestock and humans.

She is co-supervised by Andrew Kotze on the parasite side, and two venom experts from the University of Queensland, Professor **Glenn King** and Dr **Volker Herzig**.

Griffith University

\$10,000 grant

Professor **Kathy Andrews** from the Griffith Institute for Drug Discovery was awarded an Advance Queensland Engaging Science grant (\$10,000) to fund the production and printing of the first three books in her That's RAD! Science series. The first book is on parasites and is also supported by the ASP.

PhD student news

The Tropical Parasitology Laboratory welcomes PhD student **Eva Hespig**. Eva completed her Master of Science (MSc.) this year in Germany

and has commenced her PhD project at the Griffith Institute for Drug Discovery (GRIDD) under the supervision of Professor **Katherine Andrews** and Dr. **Tina Skinner-Adams**.

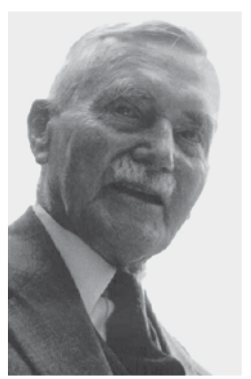
Eva's project investigates plasmodium histone deacetylases and their protein complexes as malaria drug targets.

ASP Travel Award

PhD student **Christopher Hart** and his supervisor Dr **Tina Skinner-Adams** were awarded ASP Network Researcher Exchange, Training and Travel Awards (\$2880) for a researcher exchange to visit Sam Abraham and Andrew Thompson at Murdoch University in September 2017 for anti-Giardia drug discovery research.

Fellows of the Society: names to the faces

Here are the names of the five ASP Fellows shown on page 19



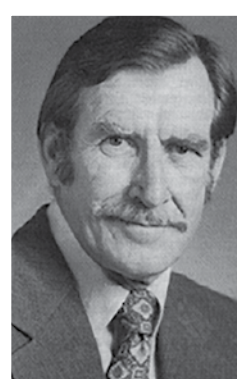
Sir John Cleland
FASP 1967



Hugh Gordon
FASP 1972



Desmond Smyth
FASP 1972



Harry Wharton
FASP 1981



Alan Bird
FASP 1993

To read a brief biography of each Fellow, visit
parasite.org.au/the-society/fellows-of-the-society/

Events



Science Meets Policymakers

ANU Commons, Canberra
8th August 2017

Science meets Policymakers will bring practitioners from a range of science and technology disciplines together with policymakers from across government and agencies - to make connections and examine the intersection between the evidence base and policy development.

Delegates will hear from senior policymakers who are actively building plans in science and technology. The program also includes targeted workshops with national leaders in policy, which will increase understanding and build meaningful collaboration around topics of mutual interest and expertise.

For policy-makers:

- Discover how to make the most of opportunities to engage with researchers and practitioners in science and technology, and with colleagues you never knew you had in other agencies and departments.
- Join a small hand-picked group for a unique opportunity to connect across inter-departmental silos, meet well-informed practitioners and researchers with relevance to your work and interests.
- Work with a national policy leader to brainstorm ideas and contribute to shaping the landscape for important national issues.
- Forge new, meaningful and high-level connections

- Create new ideas for integrating science and technology into your own policy-making.

For scientists and technologists:

- Learn about the unique complexities and challenges involved in making and applying policy.
- Discover how to make the most of opportunities to engage with policy-making and policy-makers
- Join a small hand-picked group for a unique opportunity to connect across government departments and agencies with relevance to your work and interests.
- Work with a national policy leader to brainstorm ideas and contribute to shaping the landscape for important national issues.
- Forge new, meaningful and high-level connections

If you are unsure about whether this event is for you, please get in touch at info@sta.org.au or on 02 6257 2891

Register at: sta.eventssair.com

EPIDEMICS⁶

Sixth International Conference on Infectious Disease Dynamics

29 November – 1 December 2017
Sitges (near Barcelona), Spain

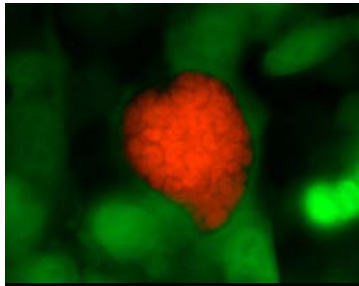
Epidemics 6: 6th International Conference on Infectious Disease Dynamics

Sitges (near Barcelona), Spain
29 November – 1 December 2017

The meeting will bring together

international delegates for three days of intense dialogue on ideas, data, insight, models and methods in the field of infectious disease dynamics. Invited plenary speakers will lead a topical programme supplemented by around 80 contributed oral presentations and lively and stimulating poster sessions for which abstracts are invited by 23 June 2017.

For full information and to submit abstracts visit: www.elsevier.com/epidemics-conference



The **Deutsche Gesellschaft für Parasitologie**
calls for participants



10th Summer School for Young Parasitologists

Bernhard Nocht Institute, Hamburg
August 7-11, 2017



Programme

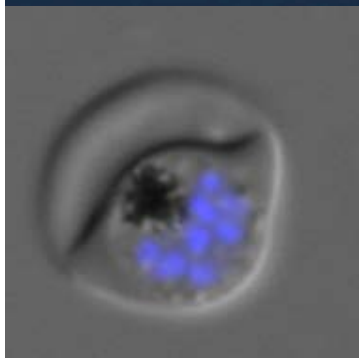
Practical sessions
Interactive seminars with guest speakers
Student seminars
Social events

Target group

PhD or Master students working in the field of parasitology

Registration and fees

€75 including refreshments and hostel accommodation
DGP membership required, please see DGP homepage for details and
registration: www.dgparasitologie.de



Contact

Prof. Dr. Tim Gilberger and Dr. Tobias Spielmann,
Bernhard Nocht Institute for Tropical Medicine





ASP

BLUE MOUNTAINS

2017

JUNE 26TH - 29TH 2017

THE FAIRMONT RESORT, LEURA, NSW

Registration and abstract submission now open.

Please visit the conference website for all the latest conference news.

www.parasite.org.au/2017conference

Please contact the Conference Coordinator, Lisa Jones by email (lisa.jones1@jcu.edu.au) or telephone +61 (0)7 4232 1311 with any queries.

Confirmed speakers include

Carol Sibley,
David Sibley,
Jacqueline Matthews,
Ron Kaminsky,
Norbert Mencke,
Vern Bowles,
Aleta Knowles,
Christopher Cleveland,
Giel van Dooren,
Tom Burkot,
Graham Robertson,
Harsha Sheorey,
Andreas Latz,
Christian Epe,
Barry Hosking,
Andrew Thompson,
Kevin Saliba,
Andrew Kotze,
Ala Tabor,
Stephanie Godfrey,
Peter Rolls,
Abdul Jabbar,
Jan Slapeta,
Shokoofeh Shamsi



Council of the Australian Society for Parasitology Inc.

Executive



President

David Emery

The University of Sydney

T: (02) 9351 3102

E: president@parasite.org.au



President-Elect

Una Ryan

Murdoch University

E: una.ryan@murdoch.edu.au



Treasurer

Peter Rolfe

Novartis

E: treasurer@parasite.org.au



Executive Secretary

Colin Stack

University of Western Sydney

Locked Bag 2797, NSW 1797

T: +61 2 4620 3237

E: secretary@parasite.org.au

State Councillors



ACT

Giel van Dooren

Research School of Biology,
Australian National University,
Canberra, ACT 0200
T: +61 2 6125 3129
E: giel.vandooren@anu.edu.au



NSW

Shokoofeh Shamsi

Charles Sturt University
Wagga Wagga, NSW 2678
T: +61 2 6933 4887
E: sshamsi@csu.edu.au



NT

Benedikt Ley

Menzies School of Health Research
Global and Tropical Health Division
PO Box 41096
Casuarina, NT 0811
E: benedikt.ley@menzies.edu.au



QLD

Gillian Fisher

Eskitis Institute for Drug Discovery,
Griffith University,
T: +61 7 3735 4415
E: g.fisher@griffith.edu.au



SA

Danny Wilson

University of Adelaide.
T: +61 8 8313 8259
E: danny.wilson@adelaide.edu.au



TAS

Barbara Nowak

University of Tasmania
AMC, NCMCRS
Locked Bag 1370
Launceston, Tasmania 7250
E: B.Nowak@utas.edu.au



VIC

Nathan Bott

RMIT University,
T: +61 3 9925 7143
E: nathan.bott@rmit.edu.au



WA

Crystal Cooper

University of Western Australia,
crystal.ccooper@research.uwa.edu.au

ASP Council continued

Other Members of Council



IJP Editor

Brian Cooke

Monash University,
E: editor@IJP.org.au
T: +61 3 9902 9146



IJP:DDR Editor

Kevin Saliba

Australian National University
kevin.saliba@anu.edu.au
(02) 61257549



IJP:DDR Editor

Andrew Kotze

CSIRO Animal, Food and Health
Sciences
andrew.kotze@csiro.au



IJP:PAW Editor

Andrew Thompson

Murdoch University
Murdoch WA
T: (08) 9360 2466
E: a.thompson@murdoch.edu.au



Bancroft-Mackerras Medal Convenor

Malcolm Jones

University of Queensland
E: m.jones@uq.edu.au



Incorporation Secretary

Tina Skinner-Adams

Eskitis Institute for Drug Discovery,
Griffith University,
E: t.skinner-adams@griffith.edu.au



ASP Network Convenor

Nick Smith

E: nick.smith@parasite.org.au



ASP Executive Officer

Lisa Jones

ASP Network for Parasitology,
James Cook University,
Cairns Campus QLD 4878
T: (07) 4232 1311
E: lisa.jones1@jcu.edu.au



Archivist

Haylee Weaver

Australian Biological Resources
Study
T: (02) 2 6250 9434
E: Haylee.Weaver@environment.gov.au