

Life Sciences Newsletter

Imperial College London

Summer 2015

[Committees and Initiatives](#)

[Your Newsletter Archive](#)

Great News - our Department [IN THE TOP 10 IN THE WORLD](#) now!

WELCOME TO ALL NEW STAFF

ACADEMIC & RESEARCH

Academic: **Julia Schroeder** – Lecturer in Ecology and Evolution.

Research Assistants: **Fiona Angrisano** (Andrew Blagborough); **Andrew Brockman** (George Christophiedes); **Siobhan McMahon** (Michael Stumpf); **Matthew Pope** (Patrick Jones); **Jorrit Schafer** (Martin Buck).

Research Associates: **Carmelo Andujar Fernandez** (Alfried Vogler); **Alicia Broto Hernandez & Masue Meimei Marbiah** (Mark Isalan); **Nicholas Fyson** (John Pinney); **Alba Herraiz Yebes** (Vincent Savolainen); **Bo Gustav Lindberg, Claire Pean & Mathieu Vanderstraete** (Marc Dionne); **Maaïke van Agtmaal** (Thomas Bell).

Research Technicians: **Holly Matthews** (Jake Baum); **Guled Ali Osman** (Michalis Barkoulas).

TECHNICAL SERVICES

Technician: **Rishi De-Kayne** (Vincent Savolainen)

PROFESSIONAL SERVICES

Protein Crystallography Facility Manager: **Marc Morgan** & Undergraduate Admissions Administrator: **Kate Sharples**.

TALKS

Cristina Lo Celso delivered the lead talk in the 'stem cells microenvironment' session at the International Society for Stem Cell Research (ISSCR) meeting on the 30th June 2015. The meeting was attended overall by over 4000 people.

Jacob Baum delivered the invited talk "*The mechanics of malaria parasite invasion into the human erythrocyte*" at the Wellcome Trust Researcher Meeting Infectious Diseases and Immunology, 1st-2nd July 2015, Royal College of Surgeons, Edinburgh.

Andrew Blagborough gave a talk entitled "Examining *Plasmodium* transmission – from cell biology to vaccine" at University of Nottingham School of Life Sciences on the 18th of June.

Michael Delves gave an invited talk "*How can we block malaria transmission and what can we learn along the way?*" at the Wellcome Trust Sanger Centre, 18th June.

Tanai Cardona gave a talk at the 15th International Symposium on Phototrophic Prokaryotes held in Tübingen, Germany, 2-6 August.

Simon Pooley presented his talk on 'Visualising conflict data to save lives: human and crocodilian,' at the International Congress for Conservation Biology, in Montpellier, France, 3 August 2015 **and**

USEFUL POLICIES & PROCEDURES & INFO

[Working at Imperial](#)

– family friendly benefits, equality and diversity, financial benefits and more...

[Shared Parental Leave Explained via Case Studies](#)

[Equality & Diversity Policies](#)

[Staff Networks](#)

[Women @ Imperial](#)

his talk on 'Mis/adventures in interdisciplinary research,' at the European Society for Environmental History annual conference in Versailles, France, 3 July 2015.

Thomas Meier was an invited speaker at Gordon Research Conference (GRC) Tuberculosis Drug Discovery & Development in Girona, Spain, July 12-17, 2015 **and** at the Gordon Research Conference (GRC) Protons & Membrane Reactions at the Proctor Academy, Andover, NH, USA. June 21-26, 2015.

PUBLICATIONS

Olshina, M. A., F. Angrisano, D. S. Marapana, D. T. Riglar, K. Bane, W. Wong, B. Catimel, M. X. Yin, T. Carvahlo, A. B. Holmes, F. Frischknecht, D. R. Kovar and **J. Baum**. (2015) Plasmodium falciparum Coronin Organizes Arrays of Parallel Actin Filaments Potentially Guiding Directional Motility in Invasive Malaria Parasites. *Malaria Journal*. In press. June 2015.

Haase, S.*, D. Zimmermann*, M. A. Olshina, M. Wilkinson, F. Fisher, Y. H. Tan, R. J. Stewart, C. J. Tonkin, W. Wong, D. R. Kovar and **J. Baum** (2015). Disassembly activities of actin depolymerization factor (ADF) is associated with distinct cellular processes in apicomplexan parasites. *Molecular Biology of the Cell*. In press. May 2015.

Wilson, D. W., C. D. Goodman, B. E. Sleeb, G. E. Weiss, N. W. M. de Jong, F. Angrisano, C. Langer, **J. Baum**, B. S. Crabb, P. R. Gilson, G. I. McFadden and J. G. Beeson. (2015) Macrolides rapidly inhibit red blood cell invasion by the human malaria parasite, Plasmodium falciparum. *BMC Biology*. In press. June 2015.

Michael Delves and **Andrea Ruecker** were the Imperial co-authors of a paper "A long-duration dihydroorotate dehydrogenase inhibitor (DSM265) for prevention and treatment of malaria", published in *Science Translational Medicine*.

The **Brickley, Franks** and **Wisden** groups joint published a paper in *Neuron* titled "[Wakefulness Is Governed by GABA and Histamine Co-transmission](#)".

Masahiro Ono's theoretical paper "[Controversies concerning thymus-derived regulatory T cells: fundamental issues and a new perspective](#)", Ono M & Tanaka RJ. Immunol Cell Biol. doi:10.1038/icb.2015.65 has been published online in *Immunology and Cell Biology*.

Pervasive robustness in biological systems. Félix MA and **Barkoulas M**. (*Nat Rev Genet*. 2015 Jul 17;16(8):483-96).

Ioanna Antoniadis, as part of her recently completed PhD in **Colin Turnbull's** lab, is first author on a collaborative paper featured with an editorial highlight in *Plant Cell*: Antoniadis I, Placková L, Simonovik B, Dolezal K, Turnbull C, Ljung K, Novák O. (2015) [Cell-type-specific cytokinin distribution within the Arabidopsis primary root apex](#). *Plant Cell* 27, 1955-67.

Pennington, H. G., Linhan., L. & Spanu, P. D. (2015). Identification and selection of normalization controls for quantitative transcript analysis in Blumeria graminis. *Methods in Plant Pathology* [In press]

ATHENA SWAN

[Female Academics' Development Programme](#)- the next programme is scheduled to run in January 2016 on 13th and 21st – 22nd. This is a great opportunity offered here at Imperial so do take advantage of this! Previous participants have reported that the programme has helped them to **confront difficult situations more confidently; gain confidence; represent themselves more effectively; develop their teams; gain promotion, cope better with difficult people.**

Karen Polizzi, Senior Lecturer (wef 1 Sept) who has attended the course, also praises this opportunity:

What I appreciated most about the course was that the length of it allowed us to explore individual scenarios rather than just generic issues faced by women in academia. The ability to tailor the session towards specific individual goals was really very helpful. I highly recommend the course. Overall it was a great experience!

[Springboard Women's Development Programme](#)

This award winning programme enables women to identify the steps they want to take, and develop the skills and confidence to take those steps. To enrol onto the programme (or ask to be added to the waiting list) please register via the [website](#) or contact the [PDC-Support Team](#) if you have any queries.



Read a **great [blurb](#)** by **Roya Haghighat-Khah**, DoLS Research Associate, who recently completed the programme.

DoLS Travel Awards

DoLS awarded 50% of the applications for the first round of 2015 [Travel Awards](#). Congratulations again to all the [WINNERS](#)!

The scheme is currently opened for submissions – deadline **4 September 2015**.

DoLS Training

Committed to ensuring DoLS **all line managers** have attended the PRDP briefing session, DoLS is organising bespoke PRDP lunch time sessions on 1st and 2nd October - these will last an hour and include lunch/refreshments. Other bespoke pop-up sessions, such as Stress Management, are also currently being planned – stay tuned!

Training materials of DoLS previous bespoke training sessions (Bullying & Harassment; Unconscious Bias) are available on our [website](#). Check it out – might learn something new☺

Support & Development Opportunities for Staff

[Organisational & Staff Development](#) - course dates for the academic year 2015-2016 will be posted on the website on the 15th September

[Coaching at Imperial](#)

[Advice and Counselling for staff](#)

[Mentoring at Imperial](#)

PRIZES AND AWARDS

Alain Filloux has been awarded a 2 year “BBSRC Taiwan-UK international partnering award” to exchange with the laboratory of [Erh Min Lai](#) (Taipei, Academia Sinica).

Fränze Progzky has been awarded a £1000 travel grant from the British Society for Immunology to attend the 8th Zebrafish Disease Model Conference in Boston.

Article for *Evolutionary consequences of nonselective harvesting in density-dependent populations* by Steinar Engen, **Russell Lande**, and Bernt-Erik Saether. *American Naturalist* 184 (6): 714-726, 2014 won the 2015 Wildlife Publications Award - Outstanding Article by the Wildlife Society.

Michael Sternberg (PI - FoNS), Mauricio Barahona (Maths) and **Mark Isalan** (FoNS) were successful in their application for a Wellcome Trust 4-year PhD programme in Theoretical Systems Biology and Bioinformatics. The programme will support 5 students p.a. for three programme years commencing October 2016. The three years of support is because all Wellcome 4-year PhD programmes will have support to recruit the 2018 cohort and will then be reviewed together. The aim of our programme to provide training in mathematical and computational biology directly applied to experimental topics in bioscience and biomedical research. The supervisor pool consists of theoreticians and experimentalist from FoNS, FoM and FoE and includes several clinically qualified researchers. The programme will be run under the aegis of the Centre for Integrative Systems Biology and Bioinformatics (CISBIO).

Ms Linhan Li has been awarded a scholarship by the China Scholarship Council to pursue a PhD in Pietro Spanu's lab.

Imperial Emeritus Professor of Biological Chemistry **Howard R. Morris** was awarded an honorary degree by the University of Leeds on Tuesday July 14th. The degree conferred by the Chancellor Lord Melvyn Bragg was a Doctor of Science *honoris causa*.



Picture: Seated left to right: Lord Bragg, Professor Morris, Sir Alan Langlands Vice-Chancellor.

POSTDOC NEWS

Postdoc Feedback and Networking Session [report](#) has been circulated and includes an update on actions already implemented (previously communicated also via the newsletter) and further actions planned by the department, with the main focus being on developing a developmental induction process/checklist and a postdoc handbook providing all relevant information. Secondly, to establish the views of our postdoc community with respect to making contributions to the department that allow them to broaden their experience outside their lab research, a micro survey will be sent to all of you in due course.

[Postdoc Development Centre](#) - provides tailored support for postdocs and fellows working at Imperial College London.

RESEARCH GRANTS & FELLOWSHIPS

Blagborough A *et al* received a further extension to their MVI award "Measuring effective TBI efficacy & transmission blocking dynamics" (\$435,543.81).

Alfonso De Simone has been awarded 3 years research grant from MRC "Understanding the Molecular Origins of the Toxicity of Alpha-synuclein in Parkinson's Disease" (£531,850).

Blagborough A was awarded the MRC New Investigator Research Grant (NIRG) – "Dissecting the molecular basis for gamete recognition in the malaria parasite, and its targeting to block transmission" (£689,243.40).

Colin Turnbull is the Lead Investigator on a new 3 year BBSRC grant, joint with University of Dundee, entitled *The molecular and genetic basis of aphid virulence*.

Robert Endres and Andre Brown got a responsive-mode BBSRC grant "Biophysical genetics of collective feeding in *C. elegans*" funded.

Morgan Beeby's lab has been awarded a ~£450 000 grant as a member of a consortium application to the EU Horizon2020 "Novel ideas for radically new technologies" call.

EJ Milner-Gulland has been awarded a NERC grant (as co-I with a previous student of hers as PI), on "learning from observational data for environmental management".

Bill Wisden and **Nick Franks** were awarded a five-year joint Wellcome Trust Investigator award "Capturing the neuronal ensembles underlying sleep and sedation" (approx. £1.8M).

George K. Christophides has received a Wellcome Trust Investigator Award to study the Anopheles-Plasmodium interactions with a focus on mosquito immune response and parasite immune evasion strategies.

Dina Vlachou has received a 3-month Wellcome Trust's Value in People award.

Wellcome Trust Institutional Strategic Support Fund (ISSF) Networks of Excellence (2015). **J. Baum** (PI), Marcus Dorner (Co-I), Mark Thursz (Co-I), Maria Teresa Catanese (Co-I), David Hughes (Co-I), **Cristina Lo Celso** (Co-I). A cross-disciplinary approach to assessing cellular interactions between Hepatitis B virus (HBV) and human malaria infections. September 2015 to September 2016 (£99,953).

MEDIA/OUTREACH ACTIVITIES/EVENTS BEING HOSTED

Stephen Curry published an article on ["Measuring research: what are the units of assessment?"](#) The Guardian (9 July), Research, Occam's Corner; He was also quoted in an article ["UK public funding on R&D holds up despite austerity"](#) and is as a signatory to the letter ["Academics draft letter complaining of 'stereotypes' in AAAS publications"](#). Both published by The Times Higher Education.

["Life's big surprises: The Vital Question and Life's Greatest Secret reviewed"](#) The Guardian (27 July) - **Stephen Curry** reviews two recent books that dive into the mysteries surrounding the origins of life and the genetic code and come up with deeply satisfying tales filled with tenacious arguments and bold ideas. Videos of these short talks ["Life's big surprises: two videos and a question"](#) have also been published.

Stephen Brickley was quoted in an article ["Researchers discover brain chemicals affecting wakefulness"](#) Xinhua News (29 July).

Michael Delves discusses drug resistance in mosquitos in a short documentary ["The World If... Malaria Drugs Stopped Working"](#) The Economist (3.29).

["Map of Life: A phone app that helps track wildlife"](#) News24 (8 August) - "London - **Walter Jetz** has been working on the Map of Life app for four years. Touching the light blue icon with a three-branched tree opens the Map of Life, clicking on 'What's Around Me', brings up a list including amphibians, butterflies, bees and 180 birds."

Flaminia Catteruccia was quoted in an article ["Great job: China's "mosquito factory" churning out a stellar one million bugs per week!"](#) by the Rocket News 24.

William Wisden was quoted in the BBC article ["Eye movements 'change scenes' during dreams"](#) BBC News and spoke to the Londonist about tube mice and how their sleep will be affected by the proposed 24 hour train schedules: Night Tube: [What Will Happen To The London Underground Mice?](#)

Austin Burt was quoted in the article ["GM mosquitoes could be key to saving lives of 500,000 children a year, say Imperial College London scientists"](#) by SW Londoner.

Simon Pooley's research has been featured on the [BBC Earth](#) website, as well as on the [Imperial podcast and the Imperial College London website](#) as well as the GCEE website. The research was also [featured in the South African newspaper The Natal Mercury](#) in the feature 'Croc attacks: how not to become a victim'. This media interest has resulted in numerous downloads of his paper: 2015, S. Pooley, ["Using predator attack data to save lives, human and crocodilian"](#), *Oryx: The International Journal of Conservation*

Austin Burt was quoted in an article ["The most selfish genes"](#) published by The Economist, Aug 22nd 2015

Armand Leroi's comment piece ["The long-term benefits of zapping worm gonads"](#) was published by the Financial Times, Aug 21st 2015

Anne Dell was one of the scientists from Imperial who presented their work to government ministers at the at the [RCUK Research Innovate Grow](#) conference on the 2 July.

Robert Endres will teach at a biophysics summer school for talented students from Bavaria, he will give three lectures and problem sessions. It will be held in Tramin near Bozen in South Tyrol, Italy, September 21-25, 2015.

Simon Pooley was nominated by the IUCN Crocodile Specialist Group to be their commentator on the Collaborative Partnership on Wildlife's (CPW) fact sheet on human wildlife conflict, which has now been finalised and will be launched in September 2015 at the World Forestry Conference in Durban, South Africa. CPW is a body established by a Decision of the Convention on Biological Diversity, whose members are global bodies that have sustainable wildlife management as a substantial part of their mandate – FAO, IUCN, UNEP, TRAFFIC, CITES etc.

GCEE (**EJ Milner-Gulland**) is organising a symposium on "[Making London Nature-Smart](#)" at ZSL on 24th Sept, and we have just published the call for abstracts, it'd be great if people could attend.

Simon Pooley's infographics of crocodile attacks, developed with Information is Beautiful Studio and funded by an ESRC/Imperial College London Impact Acceleration Award went [live](#) on the international database of crocodile attacks CrocBITE. The accompanying 24-page booklet he authored entitled *How not to get eaten by a crocodile in South Africa or Swaziland* has been printed and is being used by conservation authorities and NGOs in the region.

FINALLY...

Share your favourite summer holiday photos to be published in the next newsletter!



Here's one taken by Lenne (Sandend, Scotland).