

Life Sciences Newsletter

Imperial College London

Christmas 2014

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MESSAGE FROM THE HEAD OF DEPARTMENT

Dear all – we come to the end of the year with the REF 2014 results looming. These are released on Thursday 18 December. Whatever the results, I would like to thank everyone for their efforts. The past 3 years have been difficult, but it is pleasing that we have been able to reinvigorate the department with an infusion of young talent in all areas, and I anticipate us going from strength to strength.

I hope everyone has a good break over the Christmas period.

With best wishes - Murray

WELCOME TO ALL NEW STAFF

Research Associates

Heather (Yin-Kuan) Ang, supervised by Cristina Lo Celso; **Nathan Dennison**, supervised by Nikolai Windbichler; **Franze Progatzy**, supervised by Maggie Dallman; **John Rowland**, supervised by Patrik Jones.

Research Technicians

Neha Arora, supervised by Geoff Baldwin; **Parul Mehta**, supervised by Martin Buck.

Professional Services

Naomi Cork – Undergraduate Admissions Administrator, supervised by James Andrewes.

Research Coordinator

Carlyn Samuel, supervised by E.J. Milner – Gulland.

Research Assistants

Dimitrios Kontopoulos, supervised by Samraat Pawar; **Thomasz Kostrzewski**, supervised by Hugh Brady.

ATHENA SWAN



The first **Family Friendly Christmas Party** was really fun, with many staff/families attending and enjoying the activities, such as a Science Blast Show and making of Glowing Christmas Lanterns and Snowmen as well as Board/Card Games for older children.

Bullying & Harassment training seminars have taken place and the feedback from participants (PI's and staff with management responsibilities) has been very positive – staff found the course very helpful and useful!

The Harassment, Bullying and Victimisation Policy can be found [here](#).

PRIZES AND AWARDS

Andrew Helmstetter won the Best Presentation Prize at the 16th Young Systematists' Forum at the Natural History Museum in London for his talk entitled "Reproductive Strategy Evolution Stimulates Diversification in an Order of Fish".

Helen Pennington (PhD Student) has been awarded a \$600 travel grant to attend the Asilomar 28th Fungal Genetics Conference.

Simon Pooley was awarded £20,000 from Imperial College's ESRC Impact Acceleration Account for his project "Data and analysis can save lives: human and crocodilian".

Vincent Savolainen has been awarded the Coincy prize by the French society of botany.

APPOINTMENTS

Vincent Savolainen has been appointed to a panel for the RS Newton Fellowship applications.

TALKS

Andrew Blagborough was an invited speaker at the ASTMH conference in Nov 2014. His talk was entitled "The assessment of anti-malarial transmission-blockade within laboratory populations".

Tony Southall gave a webinar talk for the University of Puerto Rico Medical Sciences Campus on *Using DamID to study genome wide protein-DNA interactions* as part of the Cambridge BioWebinar series.

Jie Song gave a talk "A Polycomb-based quantitative epigenetic memory", at the conference "*Chromatin and Epigenetics: From Omics to Single Cells*", Strasbourg, France, in October 2014.

Tolga Bozkurt gave a talk on "Manipulation of host autophagy by the Irish famine pathogen *P. infestans*" at the Annual Conference of COST Action SUSTAIN (FA1208) held in Zakopane/Poland from 15th to 17th of October 2014.

Jamie Jones was invited to participate in a roundtable of Ebola Researchers at the University of California, Irvine, where he talked about the ecology of Ebola emergence. The full video of the talk (and all the others) is available here: http://publichealth.uci.edu/ph_docs/ebola

Simon Pooley was interviewed on 4 December, live on CapeTalk Radio about his recent book *Burning Table Mountain: an environmental history of fire on the Cape Peninsula* (Palgrave Macmillan, 2014).

Stephen Curry narrated and script-edited the RI Channel animation '[Celebrating Crystallography](#)' that won a 2014 European Science TV and New Media Award. The video is a product of a joint STFC grant between Stephen and the Royal Institution.

Vincent Savolainen attended the award holder meeting of the Royal Society Leverhulme Africa grants in Dar es salaam 5-8 Dec.

Our Department's fourth [Sir Ernst Chain Lecture](#) was held on Thursday 13th November when Professor Michael Levitt, a recipient of the 2013 Nobel Prize for Chemistry, gave a talk entitled "Modelling the Molecules of Life". The Lecture was opened by the President, Professor Gast, and we were delighted that members of the Chain family were able to join us.

PUBLICATIONS

Leanna Upton, Paddy Brock, Thomas Churcher, Azra Ghani, Peter Gething, Michael Delves, Katarzyna Sala, Didier Leroy, Robert Sinden, and Andrew Blagborough's paper "Lead clinical and pre-clinical antimalarial drugs can significantly reduce sporozoite transmission to vertebrate populations". *Antimicrobial agents and Chemotherapy (in press)*.

Andrew Blagborough et al. "The Plasmodium berghei sexual stage antigen PSOP12 induces anti-malarial transmission blocking immunity both in vivo and in vitro". *Vaccine (in press)*

The **Sinden Lab** published the following papers:

- [Pyrazoleamide compounds are potent antimalarials that target Na⁺ homeostasis in intraerythrocytic Plasmodium falciparum](#) (Nature Communications);
- [Histone methyltransferase inhibitors: orally bioavailable, fast acting molecules with activity against different human malaria species](#) (Antimicrobial Agents and Chemotherapy);
- [Changes in metabolic phenotypes of Plasmodium falciparum in vitro cultures during gametocyte development](#) (Malaria Journal).

The **research groups** of **Nick Franks, Stephen Brickley** and **Bill Wisden**, in collaboration with Dr Mick Hasting's group at MRC-LMB in Cambridge, had a paper published on "brain clocks and sleep" in *Current Biology*: <http://www.ncbi.nlm.nih.gov/pubmed/25454592> and the story was covered on the [College's website](#): and on the [MRC's website](#).

Sarkies, P., **Selkirk, M.E.**, Jones, J. T., Blok, V., Boothby, T., Goldstein, R., Hanelt, B., Ardila-Garcia, A., Fast, N.M., Schiffer, P.M., Kraus, C, Taylor, M.J., Koutsovoulos, G., Blaxter, M.L. and Miska, E.A. Ancient and novel small RNA pathways compensate for the loss of piRNAs in multiple independent nematode lineages. *PLoS Biology (in press)*.

Darby, M., **Schnoeller, C.**, Vira, A, Culley, F, Bobat, S., Logan, E., Kirstein F, Wess J, Cunningham, A., Brombacher F, **Selkirk, M.E.** and Horsnell, W.G. The M3 muscarinic receptor is required for optimal adaptive immunity to helminth and bacterial infection. *PLoS Pathogens (in press)*.

MEDIA/OUTREACH ACTIVITIES

Martin Brazeau was quoted in National Geographic News (19 October) ["Armored Fish Pioneered Sex As You Know It"](#) - "Hundreds of millions of years before there were birds or bees, fish were pioneering the earliest known form of vertebrate sex..."

Maggie Dallman was quoted in *The Daily Telegraph, Education, Education Opinion* (20 October) ["Science gives children the skills to ask the right questions of society"](#).

Anita Hall was mentioned in an article: "How to navigate an academic career" *Nature.com* [blog](#).

Ben Holt and **Knud Andreas Jønsson** ["Evolutionary evidence shows it's time to revise how we classify life on earth"](#) The Conservation.

RESEARCH GRANTS & FELLOWSHIPS

Michalis Barkoulas was awarded an ERC starting grant (£1.5M for 5 years) to perform a quantitative developmental genetic analysis of phenotypic buffering in *C. elegans* (project acronym ROBUSTNET).

Mark Isalan is a partner on a new €8M Euro H2020 Grant to develop a *Mycoplasma* vaccine using synthetic biology approaches.

Martin Buck has been awarded an MRC AMR Innovation grant for £250K to work on the role of RNA repair systems in the response of bacteria to antibiotics.

Murray Selkirk has been awarded a 3 yr research grant of £178K from the Leverhulme Trust for "Dissecting the immunoregulatory function of helminth secreted proteins".

Andrew Blagborough, Michael Delves and **Jake Baum** were awarded a grant from the Medicines for Malaria Venture - \$100K entitled "Gametocyte-sterilizing compounds as effective transmission-blocking drugs".

Morgan Beeby was awarded a £12K Faculty 'Collaboration Kick-Starter Funding' to bring Prof Kelly Hughes and Dr Fabienne Chevance (U. Utah) to Imperial in Spring 2015 for ten weeks. They will work with Morgan and Prof David Holden (Medicine) to build preliminary results investigating the molecular mechanism of Salmonella infection. As part of his stay Prof Hughes will also deliver a lecture series on advanced bacterial genetics.

POSTDOCNEWS

On the 5 Nov, the Department, together with the [ScienceGrrl](#), organised a Speed Mentoring session for our Postdocs. **A very big thank you** goes to the mentors – **John Heap, Doryen Bubeck, Stephen Hare, Bernadette Byrne, Karen Polizzi, Erhard Hohenester, Abigail Clements, Stephen Curry, Jie Song** and **Giorgio Gilestro** for their input in making the event useful and encouraging for everyone who attended!

A CV Clinic for Life Scientists was organised by Alexandra Anderson, and held on the 17 Nov.

The postdocs who attended the **DoLS the Feedback and Network Event** on the 20 Nov provided really valuable feedback, great ideas & suggestions for the Department to take forward. Full report on the event, including action points/timeframe will be published early in the New Year!

...and finally – the Xmas FunRun and Grown-Ups Christmas Party held on 15 Dec were both a great success! A huge thank you goes to **Bill Rutherford** who organised and arranged the main entertainment of the night - **The Baskervilles Blues Band** - an amazing group who kept us dancing all night long...

