

Life Sciences Newsletter

Imperial College London

October 2014

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Dear Colleagues – We start a new year with a full complement of academic staff. We have made 28 full time academic appointments over the last 2 years. This has been a major undertaking, and I am particularly pleased that we have recruited such a diverse array of young talent. Our new staff have been immediately recognised and rewarded with extraordinary grant success: a 100% record (4/4) for BBSRC New Investigator Awards in the January 2014 round, and major success with NERC, MRC, CRUK, ERC, Wellcome Trust and other funders. We can now build on this success, and I am convinced that the department is going from strength to strength. The REF 2014 results will be made public in mid December, and we hope to perform well in this assessment exercise.

We have also made appointments to a number of important roles in the Department, starting with immediate effect.

Senior Tutor Biochemistry degree: Stuart Haslam
Senior Tutor Biology degree: Pietro Spanu
Women's Tutor for Biochemistry: Anita Hall
Women's Tutor for Biology: Magda Charalambous
Admissions Tutor Biology degree: Hugh Brady
Admissions Tutor Biochemistry degree: Patrick Jones
Postgraduate Tutor South Kensington: Neil Fairweather

I would like to thank everyone for taking on these appointments, and thank the previous office holders (Maureen Taylor, Steve Connolly, Mustafa Djamgoz, Geoff Baldwin, and Stuart Haslam) for all their valued efforts. I would also like to announce that Paul Freemont and Xiaodong Zhang have formally transferred to the Faculty of Medicine as of August 2014, and wish them all the best for the future.

Professor Tom Welton, FRSC, currently the Head of Department of Chemistry and Professor in Sustainable Chemistry, has accepted appointment as the Dean of the Faculty of Natural Sciences with effect from 1 January 2015. Click [here](#) to read the full College notice.

I wish everyone continued success as we look forward to the new academic year.

Best wishes – Murray

SAVE THE DATES

[Departmental Seminar Series 2014-15](#)

22 Oct 2014

Commemoration Day

29 Oct 2014

Academic Staff Meeting

11 November 2014

DoLS **Research Fellows** Feedback and Networking Session (12.30 – 16.30 pm, SK Campus)

20 November 2014

DoLS **Postdocs** Feedback and Networking Session (13.30 – 17.30 pm, SK Campus)

13 December 2014

DoLS **Family Friendly Christmas Party**, SK Campus (2-5 pm)

15 December 14

DoLS **Christmas FunRun** (12.30 – 13.30 pm) followed by the DoLS **Grown-Ups Christmas Party** (5-10 pm)

WELCOME TO ALL NEW STAFF

Academic

Gerald Larrouy-Maumus: Lecturer. Gerald is a molecular microbiologist whose research programme is focussed on *Mycobacterium tuberculosis*

Professional Services

Naomi Cork

Undergraduate Admissions Administrator

Research Assistants

Federica Bernardini, supervised by Andrea Crisanti; **Anthony Pallett**, supervised by Gad Frankel; **Eleonora Steinberg**, supervised by Nick Franks; **Antonio Torres Mendez**, supervised by John Heap; **Dominic Swift**, supervised by Vincent Savolainen; **Henry Travers**, supervised by E.J. Milner-Gulland

Research Associates

Julia Harris, supervised by Bill Wisden & **Miguel Nunes Da Costa Da Graca Matias**, supervised by Miguel Bastos Araujo

Research Technicians

Danielle Carson, supervised by Gad Frankel; **Zhe Zhang**, supervised by Bill Wisden; **Parul Mehta**, supervised by Martin Buck

Technicians

Alysha Chua, supervised by James Murray, and **Yue Zhang**, supervised by Stephen Hare

ATHENA SWAN

All PIs and staff with management/supervisory responsibilities should attend a bespoke **Harassment and Bullying** training seminar taking place in Nov/Dec 2014 - all relevant staff have been asked to register.

A great opportunity for women who are aspiring to be academics: [Schlumberger Foundation Call for Applications for the 2015-2016 Faculty for the Future Fellowships](#)

[AcademiaNet](#): Profiles of Leading Women Scientists

TALKS

Anne Dell delivered the 2014 [Peter Gallagher Memorial Glycomics Public Lecture](#) on 8 October, at the Griffith University, Australia.

Hugh Brady was an invited speaker at the 2014 NK Cell Symposium held in Hannover on 10-12 September.

Miguel Araújo gave a keynote address at the "Simpósio em Mudanças Climáticas: Processos de Retroalimentação" at the Federal University of Rio de Janeiro (16th September).

Jie Song gave a talk on "Quantitative epigenetics" at "Researcher Links: workshop on Genetic Improvement to reduce photooxidative stress in rice", Thailand.

Richard Gill presented a talk on his research to the European conference on Apidologie (EurBee 6; all scientists from Europe who study bees attend, as well as some from America, Australia and US).

USEFUL INFORMATION

Over the summer, the [Learning and Development Centre](#) have revitalised the professional and leadership development programmes, including developing an online learning portfolio.

A new programme – [STAR](#) has been launched for staff who teach and support student learning at the College.

Imperial has launched its first women's entrepreneurship programme, the [Althea-Imperial Programme](#), which aims to support female undergraduate & postgraduate students to develop their project ideas and enterprising skills through a series of development sessions. These projects will be presented to a panel of judges where they will have the opportunity to win a £10,000 top prize.

RESEARCH GRANTS & FELLOWSHIPS

Jake Baum together with **GlaxoSmithKline** have been jointly awarded an 18 month Wellcome Trust Pathfinder Award towards "Development of an industry standard, high-throughput translation-inhibition discovery platform for the malaria parasite" for £108,073.

John Heap has been awarded BBSRC research grant BB/M011321/1 'Plug and Play Photosynthesis for RuBisCO Independent Fuels' for £418,591.

George K. Christophides has been awarded a further 5 years funding as one of three international partners of VectorBase, a genomic bioinformatics resource for the disease vector community. This multimillion dollar flagship project is funded by the U.S. National Institutes of Health. Dr Bob McCallum is a key scientist in this project.

MEDIA/OUTREACH ACTIVITIES

The story "Less than 200m USD would conserve Brazil's Atlantic Forest, say researchers" on **Cristina Banks-Leite's** paper - *Using ecological thresholds to evaluate the costs and benefits of set-asides in a biodiversity hotspot*, published in *Science* received 572 views on Imperial's website and it was also the main feature on Imperial's homepage from Friday 29 August to Monday 1 September. There were more than 95,255 page views on the homepage over that period. It also received quite a lot of Brazilian media interest as well as some interest in American media.

Jamie Wyver (MA student) was quoted in *The Guardian* (19 September 2014) in a story ["Rewilding Britain: bringing wolves, bears and beavers back to the land"](#).

E.J. Milner-Gulland was interviewed on Radio 4's Shared Planet on "[Are We Getting Used to Less Wildlife?](#)"

A podcast, accompanying the recent paper by A L. R. Carrasco, **C. Larrosa** (PhD Student), **E. J. Milner-Gulland**, D. P. Edwards, paper 'A double-edged sword for tropical forests' was podcast on College's website: *Increasing oil palm yields may not help to conserve tropical forests*.

Michael Delves' paper – the [P. falciparum Dual Gamete Formation Assay](#) (Pf DGFA – was featured on the front page of the Medicines for Malaria Venture [website](#) and has been adopted into their global drug discovery programme. The department has hosted an MMV Centre of Excellence for the last 3 years.

David Mann's paper "[Global profiling of co- and post-translationally N-myristoylated proteomes in human cells](#)", published in *Nature Communications* 5, Article number:4919(2014), doi:10.1038/ncomms5919 has been tweeted by 12 people and picked up by 9 news outlets.

The public event, hosted by GCEE at Silwood Park, "Mobilising citizen scientists: from local to global action" was featured in *Ascot News* and [The Villager](#) and a story was also published on [Imperial website](#).

PUBLICATIONS

A letter - [Ebola and bushmeat](#) - written by **Simon Pooley** and signed by Prof John Fa (affiliated with Imperial College Conservation Science) and Robert Nasi of the Consultative Group on International Agricultural Research (CGIAR), CIFOR, was published in *New Scientist*.

Schaerli, Y., Munteanu, A., Gili, M.L., Sharpe, J. & **Isalan M.** A unified design space of synthetic stripe-forming networks. *Nature Communications* (2014). DOI: [10.1038/ncomms5905](https://doi.org/10.1038/ncomms5905).

Schaerli Y., Gili, M.L. & **Isalan M.** A split intein T7 RNA polymerase for transcriptional AND-logic. *Nucl. Acids Res.* (2014) doi: [10.1093/nar/gku884](https://doi.org/10.1093/nar/gku884).

L. R. Carrasco, **C. Larrosa**, **E. J. Milner-Gulland**, D. P. Edwards, paper 'A double-edged sword for tropical forests' was published in *Science* (3 Oct 2014), Vol. 346 no. 6205 pp. 38-40. DOI: [10.1126/science.1256685](https://doi.org/10.1126/science.1256685).

Matthews, S, Berry AA, Yang Y, Pakharukova N, Garnett JA, Lee W-c, et al. (2014) Structural Insight into Host Recognition by Aggregative Adherence Fimbriae of Enteroaggregative *Escherichia coli*. *PLoS Pathog* 10(9): e1004404. doi: [10.1371/journal.ppat.1004404](https://doi.org/10.1371/journal.ppat.1004404).

Valladares, F., Matesanz, S., **Araújo, M.B.**, Balaguer, L., Benito, M., Cornwell, W., Gianoli, E., Guilhaumon, F., van Kleunen, M., Naya, D.E., Nicotra, A.B., Poeter, H., Zavala, M.A. 2014. The effects of phenotypic plasticity and local adaptation on forecasts of species range shifts under climate change. *Ecology Letters*. DOI: [10.1111/ele.12348](https://doi.org/10.1111/ele.12348).

Dina Vlachou's paper '[Characterization of Plasmodium developmental transcriptomes in Anopheles gambiae midgut reveals novel regulators of malaria transmission](#)', was published in *Cellular Microbiology* on 16 September 2014 (DOI: [10.1111/cmi.12363](https://doi.org/10.1111/cmi.12363)).

Michael Delves had a paper published outlining the novel transmission-blocking antimalarial drug screening assay – the *P. falciparum* Dual Gamete Formation Assay (Pf DGFA) in the *Antimicrobial Agents and Chemotherapy*.

Leanna Upton's and **George K. Christophides's** paper '[Anopheles gambiae Blood Feeding Initiates an Anticipatory Defense Response to Plasmodium berghei](#)' was published in the *Journal of Innate Immunity* on 19 September 2014 (DOI: [10.1159/000365331](https://doi.org/10.1159/000365331)). It is the first time an anticipatory immune response is documented in insects.

OTHER INFORMATION

Chitvan Amin, Christoph Engl and **Marko Storch**, (PDRAs in DoLS) are organising a Research Commercialisation seminar "From IDEA to IMPACT: Pathways to Knowledge Transfer and Commercialisation for Academia" on 14th Nov 2014. This afternoon event will explore the opportunities for research scientists across Imperial College to engage in collaborative projects with industrial partners. Distinguished Imperial College scientists and fellows will discuss their experience as principal investigator, consultant and industry partner. In addition, there will be talks from industrial experts (AstraZeneca, Domainex Ltd.) and the Imperial College research commercialisation team i.e. Imperial Innovations, Imperial Consultants and Corporate Partnerships.

Daniel Davis' book, *The Compatibility Gene* (Penguin) has been short-listed for the [Society of Biology general book prize](#).

Robert Ewers hosted a conference on October 1-3 at Silwood Park that was a joint meeting between NERC's Human Modified Tropical Rainforest Programme and the SAFE Project. There were over 70 attendees and 12 talks from Imperial MSc, PhD, postdocs and lecturers.