

Life Sciences Newsletter

Imperial College London

April & May 2015

[Departmental Seminar Programme](#)

[Committees and Initiatives](#)

[Your Newsletter Archive](#)

WELCOME TO ALL NEW STAFF

Academic & Research

Academic: Chair in Structural Biology - **Thomas Meier**; Senior Lecturer – **Joseph Tobias**; Senior Research Fellow - **Masahiro Ono**. **Research Assistants:** **David Harter**, supervised by Vincent Savolainen; **Pooja Pandey**, supervised by Tolga Bozkurt; Paz Prieto Martin, supervised by Masahiro Ono; **Jorrit Schafer**, supervised by Martin Buck. **Research Associates:** Gabriel Aughey, Alicia Estacio Gomez & Colin McClure, supervised by Tony Southall; **David Bending**, supervised by Masahiro Ono; **Tania Dottorini & Philippos Papathanos**, supervised by Andrea Crisanti; **Bernardo Garcia Carreras & Sofia Sal Bregua**, supervised by Samraat Pawar; **Alice Grob**, supervised by Mark Isalan; **Jana Hagen**, supervised by Murray Selkirk; **Danijela Horak**, supervised by Michael Stumpf; **Peyda Korhan**, supervised by Mustafa Djamgoz; **Simon North**, supervised by Stuart Haslam; **Martina Valentini**, supervised by Alain Filloux. **Research Fellows:** **Daniel Lawson**. **Research Technicians:** **Paolo Capriotti**, supervised by Nikolai Windbichler & **Celia Miguel Blanco**, supervised by Jake Baum. **Technicians:** **Julia Lipecki**, supervised by Alfried Vogler.

Professional Services

Allison Hunter – Technical Operations Manager.

ATHENA SWAN

Our Athena Swan Silver Application was successfully submitted on the 30 April 2015. Huge thank you to all our staff & students, who have co-operated, contributed and worked with the Department to enable us to submit what we believe to be a very strong application! Special thanks go to the amazing members of DoLS Academic Opportunities Committee (pic below) – great effort! We expect the results to be announced before the start of autumn term 2015-16.



Don't miss the [Annual Athena Lecture: Towards a silent aircraft](#) by Prof Dame Ann Dowling, held on 17th June, starting at 12.30 pm with Lunch reception!

USEFUL POLICIES & PROCEDURES

[Working at Imperial](#) – family friendly benefits, equality and diversity, financial benefits and more...

DEVELOPMENT OPPORTUNITIES FOR STAFF

[Learning & Development Centre Newsletter](#) – don't miss out on useful learning interventions!

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

[Female Academics' Development Programme](#) - next programme to run in Jan 2016 – register now!

PERSONAL NEWS



During Lenne's recent adventure in NYC she was honoured to become the God-Mother to the happiest and precious little girl Amélie, who cried most of the ceremony (held in Creole - language that Lenne does not speak, nor understand!), but thoroughly enjoyed the party afterwards☺

An unforgettable day.

Many congratulations to Steve Matthews who finished the London Marathon in a painful 3:06, a personal record, with Steve's partner Devicka completing in a very respectable 5:14. Check out their fundraising page [here](#).



SUPPORT & OPPORTUNITIES FOR STAFF

[Coaching at Imperial](#) - Coaches work with their clients on a 1-1 basis, to help them address specific work-related challenges around people or projects, or issues relating to career development. Essentially, they help to resolve, prevent or forecast challenging situations. Coaching is a confidential and voluntary process that enables individuals to manage workplace issues in a more constructive and confident manner.

[Advice and Counselling for staff](#) - All College staff and members of their family living with them can get free, confidential professional, help from Confidential Care, the College's new Employee Assistance Provider, 24 hours per day, by telephone or via the web.

Mentoring is a widely used development tool that has proved to have a beneficial impact on effectiveness, confidence and career advancement. Find out more about [Mentoring at Imperial](#).

TALKS

Richard Gill was an invited speaker at the Using Electronic & Computing Technology in Entomology SIG meeting held at Kew Gardens, 30-31 March.

Cristina Lo Celso presented her group's work at the plenary session of the 40th joint meeting of the Dutch and German Society for Cell Biology, held in Cologne March 24-26 **and** at the European School of Hematology conference on the microenvironment in haematological malignancies, held in Lisbon at the beginning of May.

Andrew Blagborough gave an invited talk at the 67th annual meeting of the Japanese society of medical entomology and zoology on "Examining transmission blockade in *Plasmodium*", 29th March.

EVENTS

Harwell Campus (which includes the Rutherford Appleton Laboratory and Diamond Light Source) are hosting a public open day in July: <http://harwellcampus.com/open-days/>

HR NEWS

Check out the [Supporting our People Booklet...](#)

Non EEA staff - Visa fees/NHS surcharges: The Provost's Board have agreed to provide an interest free loan facility to assist non EEA staff and their dependants with payment of UK visa fees and/or the new NHS surcharge costs that came into effect on 6 April 2015, the latter being applicable to staff on Points Based System visas only. Both current and prospective staff will be able to request a salary advance to cover the cost of their and their dependants' visa fees and/or NHS surcharge costs (up to a maximum of £200 per person).

Biometric Residence Permits (BRP): Staff who are required to collect a BRP from a designated post office when they come into the UK may wish to give their College campus post code on their application for entry clearance. Doing so should mean that their designated post office will be in the locality of their place of work and so may be easier for collection. A note to this effect has been added to the [Guidance for individuals - your responsibilities](#). Please also see [guidance for managers](#).

PRIZES AND AWARDS

The Journal of Evolutionary Biology & the European Society for Evolutionary Biology are delighted to announce that **Ellie Harrison** (PhD student with Austin Burt) was the winner of the inaugural 2014 graduate student prize for a paper published in *JEB*, for her paper 'Sex drives intracellular conflict in yeast'.

Congratulations to **Lucy Barron (nee York)** who has been awarded a Faculty of Natural Sciences Prize for Excellence in the Support of Teaching and Learning. She will formally receive the prize at the FoNS Prizes for Excellence awards ceremony on 10 June 2015 in the Council Room, 170 Queens Gate.

Sarah Butcher has been awarded the President's Medal for Research Support Excellence, one of three nominations selected by the Panel to receive this Medal in 2015!

John Pinney (Best Supervision) and **Steve Cook (Best teaching for Undergraduates)** are amongst the 2015 Student Academic Choice Awards (SACAs) winners! Check out the announcement [here](#) and [video testimonials](#) from students who nominated the shortlisted candidates, speaking about the impact and difference they had made!

APPOINTMENTS

Cristina Lo Celso and **Morgan Beeby** have been accepted to locate satellite research groups at the Crick Institute.

Erhard Hohenester has been invited to chair the Wellcome Trust Multi-User Equipment Committee in June 2015.

POSTDOC NEWS

Don't miss out on great development opportunities offered by the [Postdoc Dev Centre](#).

Reminders

...to access the advice/specific guidance on grant applications by DoLS pool of volunteers all Postdocs should contact Lenne Lillepuu (l.lillepuu@imperial.ac.uk) in the first instance **at least 6 weeks before their application deadline**.

[Have you had/scheduled your PRDP?](#)

Equipment – use & cost & who to contact - the Department is currently working on producing a database with available equipment, including cost and who to contact. This will take some time to finalise. Meanwhile, all Postdocs can contact the Senior Laboratory Technician, Fiona May (f.holt@imperial.ac.uk) in the first instance, and she will be able to help with any equipment enquiries.

RESEARCH GRANTS & FELLOWSHIPS

Guy Woodward has been awarded a NERC grant entitled "Impacts of global warming in sentinel systems: from genes to ecosystems". It is a 4 year project grant with £2,243,222 to Imperial (full Bid: £3,686,619 - includes 8 partner costs)

Gad Frankel was awarded A Wellcome Trust Investigator grant - Deconstructing *Citrobacter rodentium* pathogenesis - (£1.55m)

Alfonso De Simone has been awarded a BBSRC research grant as PI entitled "Understanding the Critical Step for the Cellular Toxicity of Protein Oligomers". It is a three year project grant for £456,540

Patrik Jones has been awarded €620K in a grant agreement for the collaborative project PHOTOFUEL (640720), which is coordinated by Volkswagen and includes Imperial as one of its partners. The total 4 yr grant is €6M, €1.16M to Imperial.

Jie Song has been awarded a 3-yr grant (March 2015 – Feb 2018) by the Royal Society, under the scheme of "Royal Society Research Grant - 1st year Research Fellows round".

Kathrin Witmer has been awarded a 2-year *Advanced Postdoc Mobility* fellowship by the Swiss National Science foundation (SNSF) to work with **Dina Vlachou and George K. Christophides** on "Epigenetic regulation of the malaria parasite in the mosquito gut".

Daniel Perkins has been offered an Imperial College Junior Research Fellowship for 36 months for his study entitled 'Linking body size distributions to ecosystem functioning'.

Oliver Windram was awarded a NERC Independent Fellowship.

MEDIA/OUTREACH ACTIVITIES/EVENTS BEING HOSTED

The recent paper by **Tanai Cardona, James W. Murray, and A. William Rutherford** on the [origin of oxygenic photosynthesis](#) was featured in the [Imperial Science News](#) page. Tanai was also interviewed by award-winning science author Natalie Angier for the *New York Times* regarding the same paper and the paper was turned into a pretty catchy song on YouTube! Check it out [here!](#)

Richard Gill was interviewed on the BBC world series radio on [Bees attracted to Toxic Pesticides](#), quoted in the Swiss national newspaper *Les Temps* and [interviewed by Imperial](#).

The Grand Challenges in Ecosystems and the Environment group are organising a "Bugs!" day to discover the wonderful world of bugs and other invertebrates, Friday the 10th of July.

Under the GCEE initiative, **Richard Gill** was awarded NERC and BBSRC funding to organise and host, in association with Defra, a two day workshop to bring together leading scientists from across the UK to discuss how research will help to meet the objectives set out by the government's National Pollinator Strategy. The workshop held on 30th and 31st March brought together academics, policy makers (e.g. Defra, FERA, Natural England), industry (e.g. Syngenta), funders (NERC, BBSRC) and other organisations (e.g. National Framers Union, East Malling Research, Friends of the Earth, Bee Farming Association, Game Conservancy Wildlife Trust).

PUBLICATIONS

Miguel-Blanco C, Lelièvre J, **Delves MJ**, Bardera AI, Presa JL, López-Barragán MJ, **Ruecker A**, **Marques S**, **Sinden RE**, Herreros E. "Imaging-based HTS assay to identify new molecules with transmission-blocking potential against *P. falciparum* female gamete formation" was published in *Antimicrob Agents Chemother*. 2015 Mar 23. pii: AAC.04684-14. [Epub ahead of print]

CAR Cotton, JS Douglas, S De Causmaecker, K Brinkert, T Cardona, A Fantuzzi, AW Rutherford and JW Murray opinion paper *Photosynthetic constraints on fuel from microbes* was published in [Frontiers in Bioengineering and Biotechnology](#).

The **Sternberg** group have just had a paper accepted in *Nature Protocols* entitled "The Phyre2 web portal for protein modelling, prediction and analysis" by **Lawrence Kelley, Stefans Mezulis**, Christopher Yates, Mark Wass, and **Michael Sternberg**. This paper describes developments since their last paper in *Nature Protocols* on Phyre (published in 2009) which has had over 1,800 citations (Thompson). There were over 500 citations in 2014 so we expect that this will be highly cited in 2015.

Selective observation of the disordered import signal of a globular protein by in-cell NMR: The example of frataxins. Popovic M, Sanfelice D, **Pastore C, Prischi F**, Temussi PA, **Pastore A**. *Protein Sci*. 2015 Mar 12. doi: 10.1002/pro.2679. [Epub ahead of print]

Andy Purvis et al. paper "Global effects of land use on local terrestrial biodiversity", published in *Nature* 520,45–50(02 April 2015) doi:10.1038/nature14324

Andrew Blagborough "Scientific Reports": Comparative Assessment of Transmission-Blocking Vaccine Candidates against *Plasmodium falciparum*" by Sumi Biswas, Melissa Kapulu, Dari Da, Kazutoyo Miura, Yuanyuan Li, Andrew Blagborough, Thomas Churcher, Daria Nikolaeva, Andrew Williams, Anna Goodman, Ibrahim Sangare, Alison Turner, Matthew Cottingham, Alfredo Nicosia, Ursula Straschil, Takafumi Tsuboi, Sarah C Gilbert, Carole Long, Robert Sinden, Simon Draper, Adrian Hill, and Anna Cohuet.

Marta Carrara, **Filippo Prischi, Piotr R Nowak, Maruf MU Ali** *EMBO Journal* (2015) embj.201489183 (early online) "Crystal structures reveal transient PERK luminal domain tetramerization in endoplasmic reticulum stress signaling"

Angel A, **Song J**, Yang H, Questa JI, Dean C, Howard M. Vernalizing cold is registered digitally at FLC. *Proc Natl Acad Sci U S A*. 2015 Mar 31;112(13):4146-51.

Richard Gill had a News and Views article published in [Nature](#) commenting on the importance of recent research looking at the effect of pesticides on bees.

Cristina Lo Celso's group got a manuscript accepted for publication in Stem Cell Reports. **Reema Khorshed** in the group led the work, with contributions from **Edwin Hawkins, Delfim Duarte, Folake Akinduro, Martin Spitaler** (ex FILM), **Narges Rashidi** (ex DoLS) and **Mark Scott** (ex DoLS and FILM). Title: Automated identification and localization of hematopoietic stem cells in 3D intravital microscopy data.

HEALTH & SAFETY

The Day One Safety Induction Checklist has been reviewed and simplified although the process remains the same:

- Anyone can conduct it; but it now applies to everyone – staff, students, contractors etc – only casual visitors of less than 1 day duration are exempt.
- It should be done on Day One
- A signed copy of the Day One form will be required by Security in order to obtain a swipe card
- A Day One should be done for each building where a new or existing member of the College is to be permanently located/relocated.

Please ensure you use the latest copy of the Day One Induction Checklist by using this link rather than saving a copy to your computer: <http://www3.imperial.ac.uk/staffdevelopment/safety/induction>

PHD NEWS

The DoLS Postgraduate Research Day Annual Prize Giving Ceremony took place on Friday 24th April 2015 for 2nd and 3rd year PhD Students. The Department celebrated the achievements of the following students:



Virginia Fairclough, Chris Furniss, Bevin McGeever & Alexander Byrne

Marco Castiello and **Anne Petzold** who jointly won the Best Poster prize awarded for the Second Year Poster Competition that took place on the 16th April 2015. Marco's poster was entitled: '*How to build a vertebrate: endocranial anatomy of the placoderm Shearsbyaspis*'; Anne's poster was entitled: '*Sleep against the clock: identification of sleep regulator genes in Drosophila*'

Alexander Byrne and **Chris Furniss** who jointly won the runner-up Best Poster prize awarded for the Second Year Poster Competition that took place on the 16th April 2015. Alexander's poster was entitled: '*Characterisation of StoD: a Specific Effector Protein of Salmonella enterica serovar Typhi*'; Chris's poster was entitled: '*Quantitative Plasma Membrane Profiling to Investigate the Function of EspG, a Type Three Secretion System Effector from Attaching and Effacing Pathogens*'

Bevin McGeever and **Rachel Vaux** who jointly won the Best Presentation prize for the Third Year Presentation Competition that took place on the 24th April 2015. Bevin's talk was entitled '*An enterohaemorrhagic E.coli effector protein, NieG, manipulates the host cell cycle via a novel mechanism*'; Rachel's talk was entitled '*Using a mouse trypanosome to investigate immunomodulatory parasitic nematode gene function in vivo*'

Bevin was also represented the Department at the 'Graduate School 3 Minute Thesis Competition'

David Ainsworth who won the runner-up Best Presentation prize at the Third Year Presentation Competition that took place on the 24th April 2015 for his talk entitled '*SLAM, a novel algorithm for the metagenomic analysis of high-throughput sequencing data*'

Virginia Fairclough for winning the Best Lay Summary prize at the Third Year Presentation Competition on the 24th April 2015. Virginia's summary was titled: '*Analysing inter-species interactions within the human microbiota using 16S rRNA data*'