

Life Sciences Newsletter

Imperial College London

March 2015

[Departmental Seminar Programme](#)

[Committees and Initiatives](#)

[Your Newsletter Archive](#)

WELCOME TO ALL NEW STAFF

ACADEMIC & RESEARCH

Research Associates: **Gabriel Aughey** and **Colin McClure**, supervised by Tony Southall; **Paolo Baesso**, supervised by Giovanni Sena; **Alice French**, supervised by Giorgio Gilestro; **Bernardo Garcia Carreras & Sofia Sal Bregua**, supervised by Samraat Pawar; **Alice Grob & Michal Mielcarek**, supervised by Mark Isalan, **Adam MacLean**, supervised by Michael Stumpf.

TECHNICAL SERVICES

Research Technicians: **Paolo Capriotti**, supervised by Nikolai Windbichler; **Violeta Cordon Preciado**, supervised by Jasper van Thor, **Celia Miguel Blanco**, supervised by Jake Baum.

THANK YOU

...for the commitment of our staff who have given many years of service to Imperial:

20 years

Prof Martin Buck – Professor; **Dr Laurence Bugeon** – Research Fellow; **Professor Andrea Crisanti** – Professor of Molecular Parasitology; **Dr Scott Fraser** – Research Fellow; **Ms Serophena Morgan** – Technician & **Robert Weinziel** – Reader in Molecular Biology

25 years

Dr Huw Williams – Reader in Microbiology

30 years

Professor Murray Selkirk - Head of Department & Professor of Biochemical Parasitology & **Mr Jim Culverhouse** – Technician

35 years

Mr James Mansfield – Technician

40 years

Professor Mick Crawley - Emeritus Professor of Plant Ecology

The President will be hosting a drinks reception and a dinner to celebrate with staff who passed a milestone anniversary in their service to the College in 2014.

ATHENA SWAN

[Easter Activity and Educational Camp](#): Pilot play-scheme for children of College parents and grandparents!

[Shared Parental Leave and Additional Paternity/Maternity Support Leave](#) explained further via [Case Studies](#).

Are you familiar with the [Paternity/Maternity Support Leave Policy](#) and know what you, and your staff, may be entitled to? For example – did you know that *members of staff, both men and women whose partners are having a baby are, regardless of their length of service, entitled to paid time off to accompany the pregnant woman to two antenatal appointments, made on the advice of a doctor, registered midwife or registered health visitor?*

Did you know that the purpose of the [Elsie Widdowson Fellowship Award](#) is to allow female academics to concentrate fully on their research work upon returning from maternity / adoption leave? Have you made your staff aware of this opportunity during conversations about maternity/adoption leave?

Unconscious Bias
Dare to find out your bias(es)? Take a test, or two...
<https://implicit.harvard.edu/implicit/takeatest.html>

Interesting reading...

[The weaker sex - Boys are being outclassed by girls at both school and university, and the gap is widening](#)

[Eve and evidence: what research tells us about gender equality](#)

EY leadership study; [‘This isn’t about “fixing” our women!’](#)

And few videos...

Royal Society Video: [Where are the women?](#)

[If not me, who? If not now, when?](#)

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.

[The Springboard Women’s Development Programme](#) - Lenne has signed up and attended the first session – ask her about it!

[Female Academics’ Development programme](#) - next programme to run in Jan 2016 – why not find out more about it now?!

SUPPORT & OPPORTUNITIES FOR STAFF

[Coaching at Imperial](#) - Coaches work with their clients, or coachees, 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 the coachee 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](#).

PERSONAL NEWS



Steve Matthews will be running this year's London marathon on April 26th in support of staff at The Royal Marsden. The nursing care is fantastic and they are often the unsung heroes in dealing with Cancer. My partner Devicka received so much skill, warmth and positivity during her Breast Cancer treatment (she will also be running). Half of all donated will go to Kids Company who support vulnerable children (...they always need help; www.kidsco.org.uk).

Any donations much appreciated, however small. Click [here](#) to access our fundraising page!



Tony Southall survived the Icebreaker severe winter duathlon!



TALKS

Anne Dell gave a Keynote Talk at Durham's International Women's Day celebrations on 'The Sweet Things in Life'.

Robert Endres will deliver three invited talks: EPSRC 'Physics of Life' Network meeting on 'Information flow in biological systems', July 1, 2015 German Physical Society, TU Berlin, March 17, 2015 IOP conference 'The physics of microorganisms', IOP house, London, March 23, 2015.

Tony Southall gave an invited talk at University of Birmingham School of Biosciences Seminar series on "Specifying and maintaining neuronal fate in the developing nervous system", 26 February 2015.

Pietro Spanu has been invited to give a talk on "Pathogenic and Mutualistic Interactions" at the 28th Fungal Genetics Conference in Asilomar, California (USA).

Tolga Bozkurt gave the following three talks:

- i. Latest Technologies for Crop Improvement_22-26th February 2015 Antalya, Turkey
“**Screening plants for resistance sources using pathogen effectors**”
- ii. Genomics Research on Plant-Parasite Interactions to Increase Food Production, UK-MX Workshop. Location: ENES León UNAM, León, Guanajuato. Mexico Date: 3-6 February 2015 “**Cell polarization during pathogen attack**”
- iii. Researcher Links workshop in Bangkok, Thailand on plant pathology, 16-19 February 2015 “**Uncovering the Processes at the Plant-Pathogen Interface**”

PRIZES AND AWARDS

Wilfried Jonkers (supervisor Pietro Spanu) was awarded a Marie Skłodowska-Curie Fellowship.

EJ Milner-Gulland was awarded a Pew Marine Fellowship - a prestigious fellowship to reduce the number of marine species being harmed accidentally by commercial fishing.

Emma Richards (Research Postgraduate) received a travel grant to present a poster at the 5th International *Clostridium difficile* Symposium in Bled, Slovenia, in May 2015.

William Pelton, BBSRC PhD student supervised by Colin Turnbull, was awarded 1st prize in poster competition at the BBSRC Horticulture & Potato Initiative meeting with industry on *Unlocking Innovation through Science and Collaboration* held in London, 26 February 2015.

Student Academic Choice Awards Nominees from DoLS were:

Best feedback: **Steven Cook, Kurt Drickamer, Timothy Simpson** and **Michael Tristem**; Best Innovation: **Pietro Spanu**; Best Supervision: **John Pinney** and **Christopher Wilson**; Best Support Staff: **Anita Hall** and **Serophena Morgan**; Best Teaching for Taught Postgraduates: **Maxime Huvet** and **David Orme**; Best Teaching for Undergraduates: **Martin Bidartondo, Doryen Bubeck, Stephen Curry, Alfonso De Simone, Anne Dell, Robert Ewers, Kleoniki Gounaris, David Hartley, Andrew Knight, Cristina Lo Celso, David Mann, Karen Polizzi, Aaron Sim, Jasper van Thor, Huw Williams** and **Nikolai Windbichler** and Best Tutoring: **Stephen Matthews, Kenji Okuse** and **Robert Weinzierl**

[The 2015 SACA Shortlists - revealed!](#)

Congratulations to all the shortlisted candidates – **EJ Milner-Gulland, John Pinney, Timothy Simpson** and **Pietro Spanu!**

APPOINTMENTS

Jon Lloyd has been appointed to the Biological and Biotechnological Sciences Research Evaluation Committee for the 2015 Excellence in Research for Australia (ERA) exercise (equivalent to the UK REF).

RESEARCH GRANTS & FELLOWSHIPS

Steve Matthews has been awarded an MRC project grant titled “Structural basis of human TRIAP1/PRELI function in mitochondrial lipid transport” for £548,104.

APPOINTMENTS AT FACULTY/COLLEGE

Professor Paul French, Professor of Physics, has accepted appointment as the **Vice-Dean (Research)** of the Faculty of Natural Sciences with effect from 1 April 2015 & **Professor Alan Spivey**, Director of Education for the Faculty of Natural Sciences and Professor of Synthetic Chemistry, has accepted appointed as the **Vice-Dean (Education)** of the Faculty of Natural Sciences with effect from 6 March 2015.

[Alumnus Sir Philip Dillel appointed next Chair of Imperial's Council](#)

POSTDOCNEWS

We now have a pool of volunteers who have agreed to provide their advice and help to support our process whereby all postdocs who would like additional/specific guidance and advice on their grant applications should contact Lenne Lillepuu (l.lillepuu@imperial.ac.uk) in the first instance **at least 6 weeks before their application deadline.**

[PRDPs for Postdocs](#) due 27 March 2015!

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.

PUBLICATIONS

Maxwell, S., **Milner-Gulland, E.J.**, Jones, J.P.G., **Knight, A.T.**, Bunnefeld, N., Nuno, A., Bal, P., **Earle, S.**, Watson, J.E.M., Rhodes, J. (in press) [Being smart about SMART environmental targets](#). *Science*.

Garnett JA, Muhl D, Douse CH, Hui K, Busch A, Omisore A, Yang Y, Simpson P, Marchant J, Waksman G, Matthews S, Filloux A, 2015, Structure-function analysis reveals that the *Pseudomonas aeruginosa* Tps4 two-partner secretion system is involved in CupB5 translocation., *Protein Sci.*, ISSN: 0961-8368

[Neuronal ensembles sufficient for recovery sleep and the sedative actions of \$\alpha 2\$ adrenergic agonists](#)
Zhang Z, Ferretti V, Guntan I, Moro A, Steinberg EA, Ye Z, Zecharia AY, Yu X, Vyssotski AL, Brickley SG, Yustos R, Pillidge ZE, Harding EC, Wisden W, Franks NP *Nat. Neurosci.* 2015 Feb 23. doi: 10.1038/nn.3957"

Robert Endres has two accepted manuscripts:

- i. Accurate encoding and decoding by single cells: amplitude versus frequency modulation Gabriele Micali, Gerardo Aquino, David M. Richards, and **Robert G. Endres** Accepted in *PLoS Comp Biol*
- ii. Bistability: requirements on cell-volume, protein diffusion, and thermodynamics **Robert G. Endres** Accepted in *PLoS One*

Marta Carrara, Filippo Prischi, Piotr R Nowak, Megan C Kopp, **Maruf MU Ali** "[Noncanonical binding of BiP ATPase domain to Ire1 and Perk is dissociated by unfolded protein CH1 to initiate ER stress signalling](#)" *eLife*. 2015 Feb 18;4. doi: 10.7554/eLife.03522

Ukegbu CV, Cho JS, **Christophides GK** and **Vlachou D**. Transcriptional silencing and activation during *Plasmodium berghei* zygotic development and transformation to oocyst, *Cell Microbiology*.

Parham PE, **Waldock J, Christophides GK**, Michael E. Climate change and vector-borne diseases of humans. *Philos Trans R Soc Lond B Biol Sci.* 2015 Apr 5;370(1665).

Proestos Y, **Christophides GK**, Ergüler K, Tanarhte M, **Waldock J**, Lelieveld J. Present and future projections of habitat suitability of the Asian tiger mosquito, a vector of viral pathogens, from global climate simulation. *Philos Trans R Soc Lond B Biol Sci.* 2015 Apr 5;370(1665).

Parham PE, **Waldock J**, **Christophides GK**, Hemming D, Agosto F, Evans KJ, Fefferman N, Gaff H, Gumel A, LaDeau S, Lenhart S, Mickens RE, Naumova EN, Ostfeld RS, Ready PD, Thomas MB, Velasco-Hernandez J, Michael E. Climate, environmental and socio-economic change: weighing up the balance in vector-borne disease transmission. *Philos Trans R Soc Lond B Biol Sci.* 2015 Apr 5;370(1665)

MEDIA/OUTREACH ACTIVITIES/EVENTS BEING HOSTED

The **Dallman lab** held a stand at the "Animals & Research Imperial Fringe" evening event on the 24th February. **Kathryn Charlwood**, **Fränze Progatky** and **Laurence Bugeon** talked to a wide range of people about the purpose of their research and how valuable zebrafish contributed as a model organism.

A recent study by Patel *et al.*, entitled "Revealing the density of encoded functions in a viral RNA" which includes **Dr Robert Coutts** as a co-author is reported in *PNAS USA* 112, 2227-2232 (2015).

Maxwell, S., **Milner-Gulland, E.J.**, Jones, J.P.G., **Knight, A.T.**, Bunnefeld, N., Nuno, A., Bal, P., **Earle, S.**, Watson, J.E.M., Rhodes, J. publication "Being smart about SMART environmental targets" was published at [Imperial Science News](#) page.

[CISBIO Symposium](#): Modelling from Structures to Systems with the Jaroslav Stark Memorial Lecture will be held on 14 April 2015.

Cristina Lo Celso's group presented a stand and gave a taste of their science at the W@Imperial launch on Tuesday 10th March. They were hunting for stem cells, looking at the connection between mutations, stem cells and cancer, and showing images and movies just come out of the lab.

["Hi-tech medical scans reveals what makes trees produce better biofuel"](#) Click Green (11 March) - "Researchers at Imperial College London have used medical imaging techniques to explore why making willow trees grow at an angle can vastly improve their biofuel yields. The team used micro-CT scans to show that the trees respond to being tilted by producing a sugar-rich, gelatinous fibre, which helps them stay upright... 'It was difficult to see why the trees were releasing so much more sugar when stressed in nature or grown at an angle. Being able to visualise the differences occurring at a microscale, or cellular level, allowed an insight into the biology behind the macroscale effects on the whole tree,' explains **Dr Nicholas Brereton** from Imperial's Department of Life Sciences.

USEFUL TO KNOW...



Science Classic now available, giving you access to the full digital archive of *Science* from 1880 onwards

Find it with Library Search!

SCIENCE CLASSIC – ONLINE ACCESS FROM 1880 ONWARD

The library has recently subscribed to the full Science archive which gives us access to this journal from 1880 onwards. Thanks to everyone who suggested this as a potential purchase, please let Elizabeth Killeen (Life Sciences Librarian) e.killeen@imperial.ac.uk know if there are any other journals you would like the Library to consider subscribing to.