

Life Sciences Newsletter

Imperial College London

May 2016

[DoLS Committees and Initiatives](#)

[Health & Wellbeing](#)

[DoLS Newsletter Archive](#)

Message from the HoD

Vincent Savolainen will be stepping down as Deputy Head of Department for Silwood Park at the end of this month. I would like to thank Vincent for doing such a fantastic job, overseeing the recent development of Silwood, incorporating new buildings and facilities, a large number of new appointments, a significant increase in research volume, and an extremely successful REF outcome. I am very pleased to announce that Tim Barraclough will be taking over from 1 June, and invite you to join me in wishing him all the best in his new role.

Best wishes – Murray

WELCOME TO ALL NEW STAFF

Research Assistants: **Stefans Mezulis** (Michael Sternberg); **Wei Ba** (Nick Franks); **Caroline Mullineaux Sanders** (Gad Frankel); **Vivek Senthivel** (Mark Isalan). *Postdoctoral Research Associates:* **Linus Schumacher** (Robert Endres); **James Jarvis** (Alfonso De Simone); **Ricardo Randall** (Giovanni Sena); **Michelle Jackson** (Guy Woodward); **Mariya Dobрева** (Arkhat Abzhanov). *Laboratory Technician:* **Alejandro Lopez Lopez** (Alfried Vogler).

RESEARCH GRANTS AND FELLOWSHIPS

Mark Isalan was given a 1-year award from the Confidence in Concept Scheme (Imperial/ICR/NIHR BRC/NHS) to fund a preclinical study on a single-injection gene therapy for Huntington's disease, using synthetic zinc finger transcription repressors

PRIZES AND AWARDS

Courtney Boyd (Research Postgraduate) from the **Bubeck lab** has been shortlisted for SCI's Young Lipid Scientist Award.

Gabriella Santosa (2nd year UG student) won £10,000 of funding at the final of the Imperial-Althea Programme.

Sven De Causmaecker (Research Postgraduate) gave a short talk and won a poster prize at the [79th Harden Conference](#).

APPOINTMENTS

Hugh Possingham was elected one of new Foreign Associates to the US [National Academy of Sciences](#).

Cristina Lo Celso has been appointed on a reviewing board of reviewing editors of eLife.

Stephen Curry has been appointed to the Advisory board of [PeerJ Preprints](#).

USEFUL INFORMATION:

- ▶ [Working at Imperial](#)
- ▶ [Funding Opportunities for Women](#)
- ▶ [Staff Networks](#)
- ▶ [Organisational and Staff Development](#)
- ▶ [Equality, Diversity and Inclusion Centre](#)
- ▶ [Occupational Health Service](#)
- ▶ [Postdoc Development Centre](#)



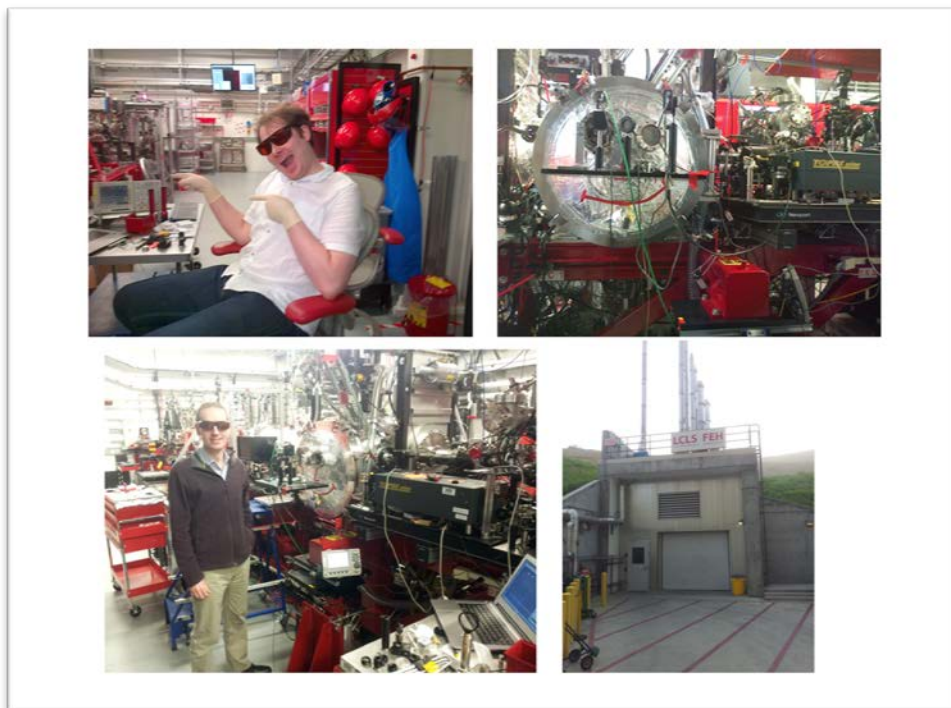
PUBLICATIONS

Taylor, JD, Hawthorne, WJ., Lo, J., Fletcher C., Darvill, N., Scull, N., Escalera-Maurer A., Sefer, L., Wenman R., Lambert S., Jean, J., Xu, Y., Bubeck, D., De Simone, A., Matthews, S., *et al* paper [Electrostatically-guided inhibition of Curli amyloid nucleation by the CsqC-like family of chaperones](#), published in *Sci Rep.* 2016 Apr 21;6:24656. doi: 10.1038/srep24656.

D.M. Richards, **R.G. Endres**, Target-shape dependence in a simple model of receptor-mediated endocytosis and phagocytosis, *Proc. Natl. Acad. Sci. USA*, in press.

"Transmission blocking potency and immunogenicity of a plant-produced Pvs25-based subunit vaccine against *Plasmodium vivax*" by **A. M. Blagborough**, K. Musiychuk, H. Bi, R. M. Jones, J. A. Chichester, S. Streatfield, **K. A. Sala**, **S. E. Zakutansky**, **L. M. Upton**, R. E. Sinden, I. Brian, S. Biswas, J. Sattabonkot, V. Yusibov. *Vaccine*, in press

X-RAY FREE ELECTRON LASER ENABLES FEMTOSECOND TIME RESOLVED PUMP-PROBE CRYSTALLOGRAPHY OF BIOLOGICAL PHOTOISOMERISATION IN A PHOTORECEPTOR. For the first time, X-ray crystal structures of Franck-Condon excited state motion of a protein were recorded, with femtosecond time resolution. **Christopher D. M. Hutchison.**, **Jasper J. van Thor** *et al* article "[Femtosecond structural dynamics drives the trans/cis isomerization in photoactive yellow protein](#)" was published in *Science*, Vol 352, Issue 6286, 06 May 2016.



Jasper van Thor and Christopher Hutchison at the CXI beamline at the Stanford LCLS, March 2016

MEDIA/OUTREACH ACTIVITIES/EVENTS BEING HOSTED

Mark Wilkinson & Laurence Bugeon were in the French national news as a result of the #hugabrit campaign – a campaign set up by Europeans who live in the UK but can't vote in the upcoming brexit vote. Watch the [video](#) (skip to 1 min 59 to get a SAF shot, or hug and Laurence's interview)

Mark Isalan contributed to a public seminar series at the Royal College of Art (April 2016) aimed at mixing art, design, philosophy and synthetic biology. Topics discussed with the audience included how to grow a city or make vegan leather

Jasper van Thor was quoted in an article "[Fastest-ever Molecular Imaging Reveals Reaction Crucial for Vision](#)" Science Newsline Biology (6 May)

Simon Pooley accepted an invitation to join the IUCN Task Force on Human-Wildlife Conflict and is giving a paper on the subject at the IUCN Crocodile Specialist Group working meeting in the Kruger National Park, South Africa, in mid-May

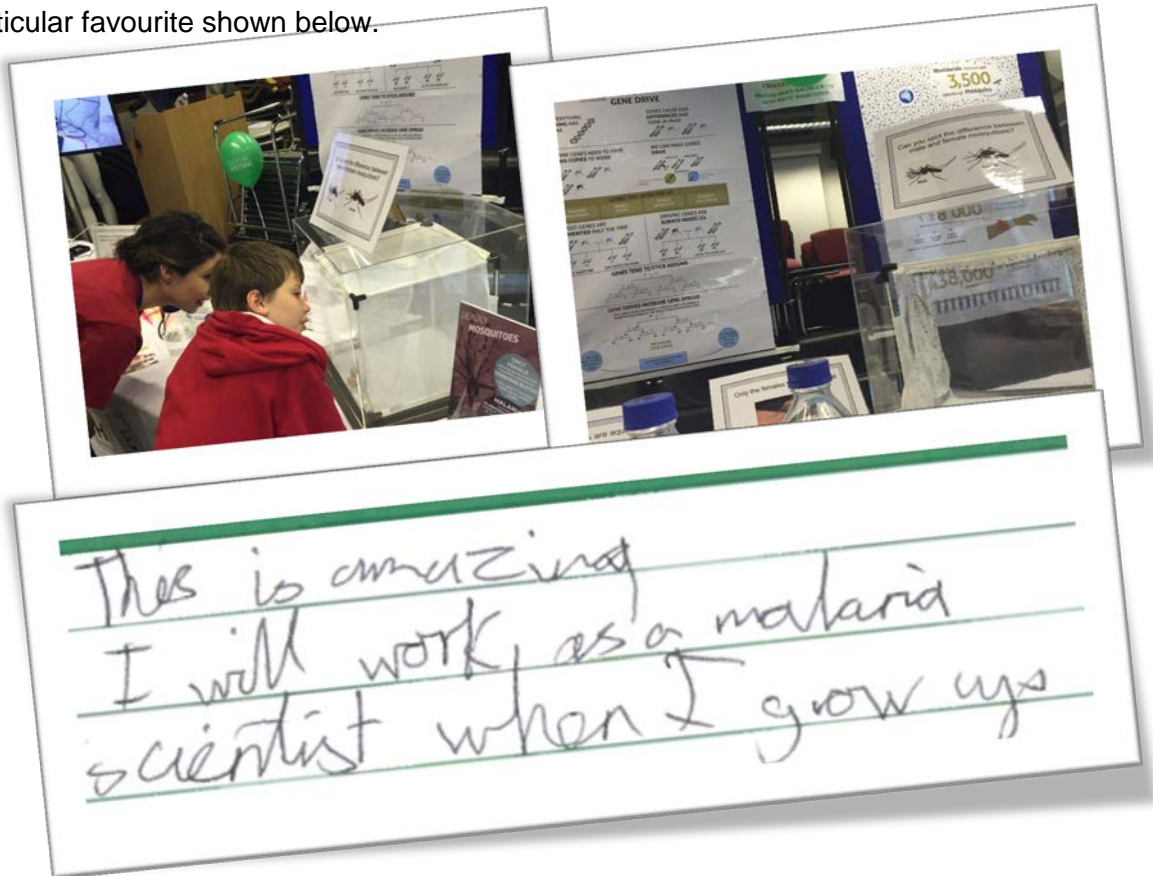
Stephen Curry's article "[Why I am wrong about Brexit, and you are too](#)" was published in theThe Guardian, 23 May 2016

Andrew Blagborough's group presented their work at the World Malaria Day Parliamentary Event in Portcullis House in conjunction with Malaria No More on April 25th

Roya Haghighat-Khah, Valentine Cisnetto and Delphine Thizy took part in the World Malaria Day 2016 Parliamentary Event to showcase their group's latest science and innovation on gene drive mosquitoes, which strengthens the UK as a global leader in efforts to fight malaria. Their exhibit included a live mosquito display, a video of Target Malaria's work and colourful infographics

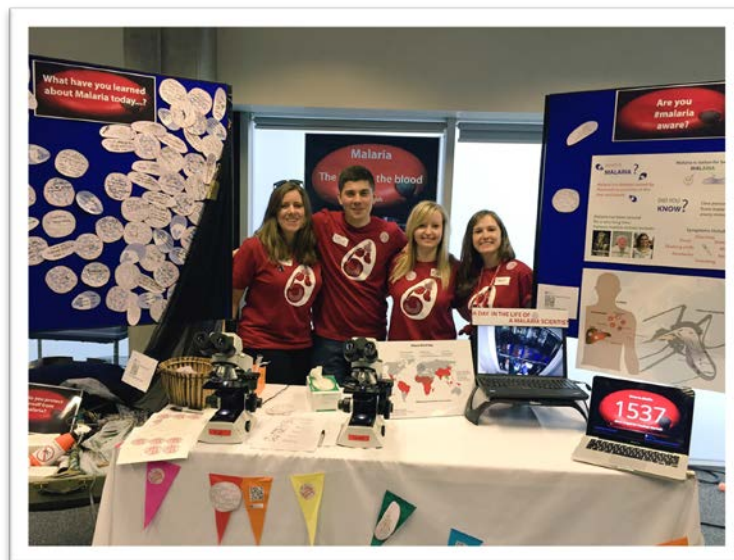
OUTREACH - IMPERIAL FESTIVAL

Roya Haghighat-Khah, Dario Meacci, Chrysanthi Taxiarchi, Andrew M Hammond (with organisational support from Delphine Thizy, Andrea Crisanti, Austin Burt and Valentina Cisnetto) took part in the Imperial Festival last weekend. Their stall in the SuperBug Zone focused on the use of gene drive technology against malaria vectors. This included a live display of mosquitoes, fluorescent microscopy of transgenics carrying a red fluorescent marker, glowsticks and a video of how the team engineers mosquitoes in the lab. Feedback cards were overwhelmingly positive, one particular favourite shown below.



Allison Hunter volunteered with Synbicite and Labster demonstrating their virtual reality lab tour: https://twitter.com/imperialcollege?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauth or

The **Baum's group** stand was called "Malaria-the killer in the blood-Follow the journey of the malaria parasite from mosquito to man and become an expert in diagnosing this deadly disease". We had way more than 500 visitors at our stand (from toddlers to senior Imperial alumni), learning everything about the malaria parasite starting with the life-cycle and finishing with malaria prevention and treatment. And of course visitors got a glimpse at the parasite down the microscope themselves. We also have a [Baum lab Imperial Festival Page](#) for online hand-outs and information. The Festival was an absolutely brilliant weekend!



Samraat Pawar and Dan Goodman (Department of Electrical and Electronic Engineering) had an exhibition stand at the recently concluded Imperial Festival on the theme of Ecosystem Control and Engineering. The stand's main attraction was a video game (www.ecobuildergame.org) being developed through a collaboration between the Pawar and Goodman Labs, and live exhibits of trophic interactions contributed by Chris Wilson, and the Woodward, and Bell labs. The stand was a big hit, with over 500 adults and children visitors, most of whom had a go at either watching real predation, building ecosystems through the video game, or both! The group now plan to trial the game as an educational tool in some local schools. The game continues to be developed as an educational and research tool.



Patrik Jones' lab - Nicole Prandi, Mathieu Bousquet, Merlin Williams, Dipankar Chosh, Danielle Gallagher, Laura de Arroyo Garcia, Marine Valton & Phoebe Tickell made a [video](#) of "What does synthetic biology smell like?"



Heather Ang, Constandina Pospori, Sara Lamas Oliveira Marques & Cristina Lo Celso

Everyone loves their home! So do Blood Stem Cells, they love the Bone Marrow environment! To better illustrate this concept we made several homes for different characters that kids really enjoyed exploring!



Members of the **Beeby, Filloux, and Frankel labs** combined forces to host a stall to convey the size of bacteria and their macromolecular machinery. To do this they depicted bacteria over three scales: a low-magnification scale using light microscopy (to show live bacteria), medium-magnification models of the bacteria, and high-magnification models of the machinery that those bacteria use (made of Lego).



Natalie Andrews and the Dallman Lab were lighting the way in Biological research by using fluorescent zebrafish. Live zebrafish larvae were on show under the microscope and also on 3-D screen. Kids and adult loved it! They had no idea that fish could be a powerful tool to study human disease. We even attracted our own colleagues to the stand.



Outreach Opportunities

Sarah Lamas Oliveira Marques is currently working with [Native Scientist](#) - a charity that empowers immigrant communities through science outreach and promotes diversity in STEM. They organise 1.5 hour long sessions in schools, where groups of international scientists meet immigrant pupils to explore scientific concepts and perform hands-on experiments in their home language. This is great for the pupils and for the scientists alike! Check out the [website](#) to register to volunteer!

UPCOMING EVENTS

The Blyth Centre's series of free lunchtime concerts given by internationally recognised musicians has begun. The concerts take place every week on Thursdays during term time between 13.00 and 13.45 in the Read Lecture Theatre, Sherfield Building, South Kensington Campus. [Access the programme](#)

Professor Alice Gast, President of Imperial College London will deliver this year's [Athena Lecture](#), titled, 'Order, Disorder, Complex Fluids & Life' on 1 June, 12.30 – 14.30 in Skempton Building, room 201. The Athena Lecture series celebrates the achievements of women in science, technology and medicine. It is given annually by a prominent female scientist who has made outstanding contributions in any of these fields. [RSVP](#)

POSTDOC NEWS

Next [Beer&Pizza&Talk Event](#) is taking place this Thu 26 May at 5 pm in 7th Floor Common Room, SEC Building. Contact [Alice Grob](#) to register.

TALKS

David Briggs spoke at the British Crystallographic Association Spring Meeting in Nottingham on the 7th April.

Andrew Blagborough gave a talk at a Conference: Malaria Vaccines for The World 2016. Leiden LUMC. Title: "Assessment of the potential effectiveness of transmission blocking vaccines by use of an experimental lab-based transmission population model"

Roya Haghghat-Khah presented her lab's recent work at the British Meiosis Meeting at the MRC Clinical Sciences Centre, London.

PERSONAL NEWS

Michael Stumpf is proud to announce the birth of their baby boy Lucas Christoph on March the 30th.

Mother Zoë and sister Hannah are as delighted as he is!



MANY CONGRATULATIONS! 😊

The DoLS 'Postgraduate Research Day' Annual Prize Giving Ceremony took place on Friday 22nd April 2016 for 2nd and 3rd year PhD Students. The Department celebrated the achievements of the following students:

Congratulations to **Quentin Geissmann and Rogier Edward Hintzen** who won jointly the 'Best Poster' prize for the '2nd year poster competition' on the 15th April 2016.

Congratulations to **Adam Ciezarek, Marion Koch and Dylan Smith** who won jointly the runner-up 'Best Poster' for the '2nd year poster competition' on the 15th April 2016.

Congratulations to **Kathryn Charlwood** who won the 'Best Presentation' prize for the '3rd year seminar competition' on the 22nd April 2016 for her talk entitled '*A High Cholesterol Diet Induces Changes in Intestinal Inflammation and Motility which are Modulated by the Gut Microbiota*'.

Congratulations to **Alexander Byrne, Laura Bouche and Belen Arias Mella**, who won jointly the runner-up 'Best Presentation' prize for the '3rd year seminar competition' on the 22nd April 2016.

Titles of the talks were:

Alexander Byrne: '*StoD: a Specific T3SS Effector of Salmonella entericaserovar Typhi*'.

Laura Bouche: '*Glycoproteomics of Clostridium difficile*'.

Belen Arias Mella: '*Genetic structure and diversity of Ceratitidis capitata populations using mitochondrial DNA*'.

Congratulations to **Robert Furniss and Eszter Lakatos** for winning jointly the 'Best Lay Summary' prize at the '3rd year seminar competition' on the 22nd April 2016.



Postgraduate Graduation Day was on 4th May 2016. After the ceremony at the Albert Hall, Professor E.J. Milner-Gulland met up with the MSc Conservation Sciences graduands (class 2014-15)



Finally...

The [Mental Health Awareness Week](#), held during the week of 16-22 May, provided a wide range of opportunities for staff & students to raise awareness about mental health and the fantastic [advice & support](#) available at the College. DoLS held a successful lunch for all staff that proved to be very useful and informative with Claire O'Brien, Director of Occupational Health, sharing information & answering any questions.

Did you know what there is a [List of Mental Health First Aiders](#) (includes our very own – [Anita Hall](#)) or [Line Managers Guide](#) - a practical guide to managing and supporting people with mental health problems in the workplace and wide range of [Self-Help Leaflets](#)?

Some of the other various services available include:

[Confidential Care](#) - all College staff and members of their family living with them can get free professional and confidential help from Confidential Care, the College's Employee Assistance Provider, 24 hours a day 7 days a week.

[Harassment Support](#)

Managerial Advice Line - [Confidential Care](#) also provide a dedicated telephone advice line for managers and supervisors who need advice or would like to talk through how to approach a difficult situation in the role as a manager.