



## DISCOVERING EXCELLENCE AND MERIT AWARDS

Congratulations to the following staff members who have been shortlisted for the 2017 Discovering Excellence Awards



Prof. Andy Abbott  
*Enterprise Award*

Prof. Emma Raven  
*Research Excellence*

Dr Alison Stuart  
*Equalities Champion*

Dr Sandeep Handa  
*Student Experience*

Dr Dylan Williams  
*Teaching Excellence*

Out of 36 people/groups nominated Chemistry has done extremely well in having so many staff members nominated. The winners will be decided at a function on 16<sup>th</sup> November.

Congratulations also go to Phil Young who was the recipient of a merit award earlier this year.

## Graduation 2017

Congratulations to all our undergraduate graduands this summer!



Congratulations also go to this year's prizewinners, pictured below and listed to the right:



## GRADUATION PRIZEWINNERS

Charlotte Pughe: Hunter Medal – *Best Graduating student in Chemistry* and Dunlop Polymer Engineering Division Prize – *Best graduating MChem student in Chemistry*

Khadeeja Patel: Dunlop Polymer Engineering Division Prize – *Best graduating BSc student in Chemistry*

Morgan Thomas: Celltech Prize – *Graduating Pharmaceutical Chemistry student with the highest overall average*

Federica Lisa: Waters Ltd Prize - *Best graduating Chemistry with Forensic Science student*

Marie Taylor – Forensic Science and Criminal Justice Best Dissertation Prize

Leisa Nichols-Drew – Forensic Science and Criminal Justice Best Student Performance Prize

Prizes voted for by undergraduate students:

Barbara Villa Marcos – Academic of the Year

Yana Rennie – Postgraduate of the Year



PROFS RYDER AND ABBOTT WIN FUNDING TO DEVELOP A NEW AND REVOLUTIONARY TYPE OF BATTERY

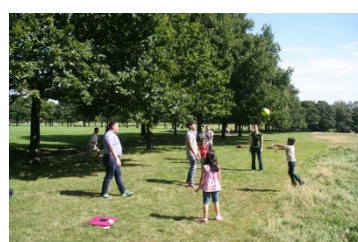
## Department of Chemistry celebrates first Family Fun Day

On the afternoon of Friday 25<sup>th</sup> August 100 members of the department's community enjoyed its first family fun day held in Victoria Park.



Departmental staff, students and their families brought along food and drink to a picnic in the park as part of the event. There was also liquid nitrogen ice-cream, made by PhD students, science experiments, ball games, badminton, cricket and tennis for all the family to enjoy.

Thanks go to the members of the Athena SWAN committee for organising the event. This is part of a Departmental strategy to improve the work/life balance for members and staff and builds on our recent success in the Athena SWAN silver award. Thanks also go to all department members who helped to make the event successful, whether by bringing along food and/or family members. It was a great event which celebrated the diversity of staff working in the Chemistry department and enabled students and staff to socialise together in a relaxed, family-friendly environment.

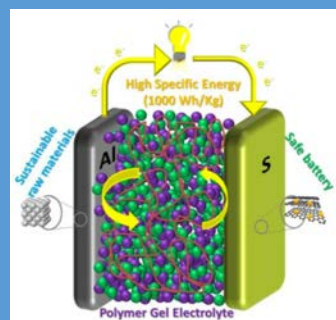


PROF ANDY ELLIS ELECTED AS CHAIR OF THE MOLECULAR PHYSICS GROUP (MPG) OF THE INSTITUTE OF PHYSICS

**IOP**  
Institute of  
Physics

Congratulations to Andy Ellis who has been elected as Chair of the Molecular Physics Group (MPG) of the Institute of Physics.

Molecular physicists work at the interface of physics and chemistry in research work in areas including molecular reaction dynamics, laser chemistry/physics, spectroscopy, quantum chemistry, surfaces, and solid state physics. The primary objective of the MPG is to provide a forum for the promotion of this rapidly developing field of research, including organising conferences and symposia. It also seeks to raise the profile of Molecular Physics, to develop closer links between chemists and physicists, and to liaise with Molecular Physics groups overseas.



*Schematic of the new Al-S ionic liquid SAIBAGE battery*

Profs. Ryder and Abbott have won EU funding for a blue-skies project aimed at developing a new and revolutionary type of battery based on aluminium and sulfur.

The project is funded under the EU (Horizon 2020) Future Emerging Technologies scheme, which is the most competitive of the EU funding mechanisms. The award is the first of its type for the University of Leicester. The project aims to deliver a new type of battery based on aluminium (rather than lithium). Aluminium is more abundant, cheaper and safer than lithium. For more information please click the link [here](#).





### CONFERENCE PRESENTATIONS – PROF ANDY ELLIS

Prof. Andy Ellis gave invited presentations at several overseas conferences on work done by himself and Dr Shengfu Yang on the behaviour of molecules encased in superfluid liquid helium. The conferences included the Quantum Fluid Clusters 2017 conference in Austria, the International Symposium on Molecular Beams in The Netherlands, and the Brazilian Physical Society meeting in Rio de Janeiro.

### PROF ANDY ELLIS AND DR BARBARA VILLA MARCOS COLLECT ATHENA SWAN AWARD

Dr Barbara Villa Marcos and Prof. Andy Ellis represented the chemistry department at the Athena SWAN Charter awards ceremony at Imperial College on 19<sup>th</sup> July, where the chemistry department received their Silver award.



## Dalian – Leicester Institute

The first cohort of students have begun studying at the Leicester International Institute, Dalian University of Technology (DUT), China. DUT and the University of Leicester are offering a unique 4-year course, taught in English, which enables students to gain Chemistry degrees from both universities. DUT is ranked among the 'Ivy League' of Chinese universities.



*First cohort of Chemistry students at Dalian*

Currently the DLI is offering degrees in two subjects, Chemistry and Engineering, and the first cohort studying Chemistry started last month and consists of 98 students. The new Director of the Institute is Professor Eric Hope from our own Department of Chemistry. Eric has been leading the way in setting up the Institute and is now a regular visitor to DUT. In time, other Leicester academic staff will travel to DUT as 'flying faculty' and will teach over there for typically two or three weeks each year.

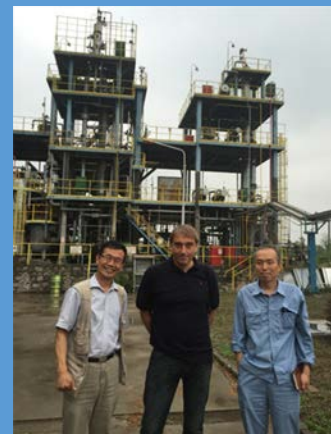


*Students at registration*

*Students in their first lecture*



### DR GREG SOLAN AWARDED CAS PRESIDENT'S FELLOWSHIP



Greg Solan was awarded a CAS President's International Fellowship to spend 4 months over the summer at the Institute of Chemistry at the Chinese Academy of Sciences.



While based mainly in Beijing he visited various Institutes and Universities in the capital city and around China giving presentations on his research. The fellowship also allowed him to forge a strong link with one of China's leading Polyolefins experts resulting in a raft of joint publications and the prospect of graduate student exchanges between Leicester and CAS.



## 17<sup>th</sup> RSC Fluorine Postgraduate Meeting

DR DYLAN WILLIAMS  
AWARDED NATIONAL  
TEACHING FELLOWSHIP



Dr Alison Stuart, Chair of the RSC Fluorine Subject Group, hosted the 17<sup>th</sup> RSC Fluorine Postgraduate Meeting at John Foster Hall on 18<sup>th</sup>/19<sup>th</sup> September 2017. There were 10 presentations from postgraduate students and three keynote lectures from Dr Petr Beier, Czech Academy of Sciences, who was the winner of the 2017 RSC Fluorine Prize, as well as Dr Tanja Gulder, University of Munich, and Dr Sebastien Thibaudeau, University of Poitiers.



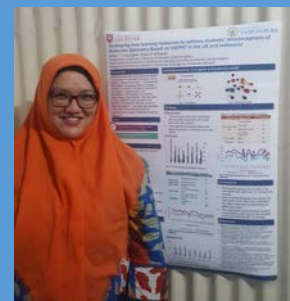
Dylan said: "It is a great honour to be awarded this fellowship, and I am so grateful to the Higher Education Academy and the University of Leicester for their support. I am looking to build on my previous work by researching the impact of different active learning approaches on the skills development of students."



Congratulations to Simran Minhas who won 2<sup>nd</sup> prize for her oral presentation at the meeting. Simran is a 2<sup>nd</sup> year PhD student working with Dr Alison Stuart and she talked about her latest research on "Fluoroiodane: A new hypervalent iodine(III) reagent for atom transfer reactions".

PHD STUDENT ERLINA  
RECEIVES TEG BURSARY  
TO ATTEND  
VICEPHEC2017  
CONFERENCE

Congratulations to PhD student Erlina who received a Tertiary Education Group (TEG) bursary to attend the Variety of Chemistry Education and Physics Higher Education conference. The conference, sponsored by the RSC and IOP, took place at the University of York between 23<sup>rd</sup> and 25<sup>th</sup> August 2017.



As part of the conference Erlina presented a poster entitled 'Developing new learning resources to address students' misconceptions of Shape of Molecule Based on VSEPT in the UK and Indonesia'. Erlina's PhD project is about developing learning resources to promote students' conceptual understanding under Dr Chris Cane (GENIE CETL (Centre for Excellence in Teaching and Learning) and Dr Dylan P Williams (Dept. of Chemistry).





## LEICESTER INSTITUTE OF STRUCTURAL AND CHEMICAL BIOLOGY ADVISOR WINS NOBEL PRIZE

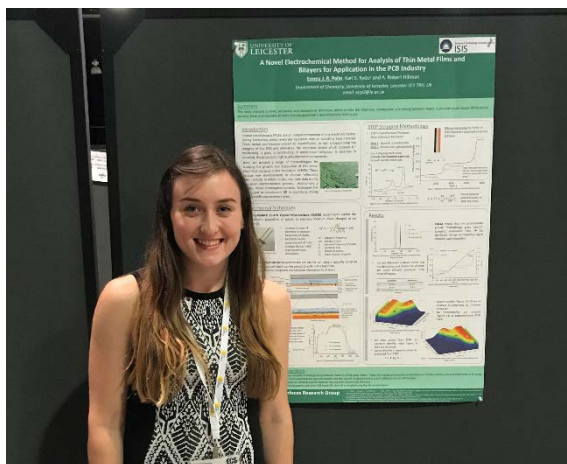
On 4<sup>th</sup> October it was announced that Richard Henderson (Cambridge) had won the Nobel prize winner in Chemistry, for his work on cryo-electron microscopy (shared with Jacques Dubouchet and Joachim Frank). Richard gave a lecture at the university on 3<sup>rd</sup> October, as part of the 2-day cryo-EM conference on 3<sup>rd</sup> and 4<sup>th</sup> October organised by the Leicester Institute of Structural and Chemical Biology. He received his call from Sweden while sitting in the Frank May Lecture Theatre and had to quietly leave the room! A video stream of the live Nobel ceremony, announcing his prize was then streamed in the FMLT, to huge applause. A photo of Richard moments after hearing the news of his award is below.



Photo: Peter Watson (LISCB manager), Richard Henderson, Peter Moody

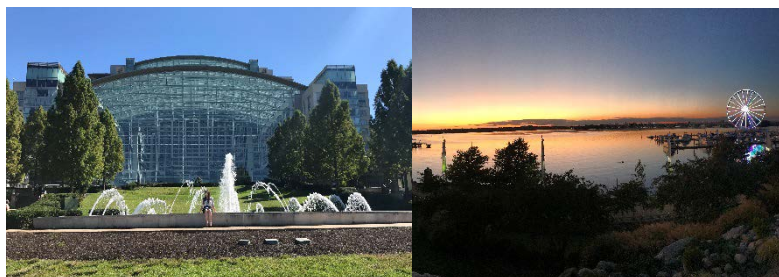
## PhD student Emma Palin awarded bursary to attend electrochemical society meeting in US

Emma Palin was awarded a bursary from the Electrochemistry Group of the RSC, one of only 10 awarded this year, to attend the 232<sup>rd</sup> Electrochemical Society meeting. The meeting took place from 1<sup>st</sup> to 5<sup>th</sup> October in National Harbor, MD, USA. Emma presented a poster entitled 'A Novel Electrochemical Method for Analysis of Thin Metal Films and Bilayers for Application in the PCB Industry'.



Prof Karl Ryder also presented at the meeting, giving a talk entitled 'Characterisation of Metal Deposition and Metal Dissolution Processes in Deep Eutectic Solvents Using Electrochemical, Gravimetric and Neutron Scattering Methods.'

Emma's research involves using a variety of novel electrochemical and neutron scattering techniques to characterise thin layer metal films that are used to manufacture printed circuit boards for the electronics industry, supervised by Prof. Ryder and Prof. Hillman. For more information on the conference please click [here](#).



Fountain conference centre and view of Potomac river

## PROF EMMA RAVEN PUBLISHED IN *SCIENCE*

Prof Emma Raven, together with Prof Kara Bren, published a *Perspectives* article titled 'Locked and loaded for apoptosis.' in *Science* Vol. 356, Issue 6344 (link [here](#)).

## NORTHERN DALTON EARLY CAREER CONFERENCE 2017

On 29<sup>th</sup> June the Department of Chemistry at Sheffield hosted this year's Northern Dalton Division Early Career Conference. This was an opportunity for PhD students and post-docs working in the field of inorganic chemistry to present their work to over a hundred delegates.

Congratulations to Neringa Tamosiunaite, Leicester Chemistry PhD student, who won a poster prize at the event.



### COLLEGE AWARDED £120,000 FOLLOWING TEACHING LAB BUSINESS CASE

The Chemistry Department was awarded £120k from the College of Science and Engineering, for the purchase of new equipment for the teaching labs.

The new purchases comprise bomb calorimeter, microwave reactor, ATR IR spectrometer, diaphragm pumps, new rotavaps and chillers, hot plates and various PCs to be used by the students during the laboratory sessions.

### PROOF OF CONCEPT FUNDING

Congratulations to Professor Karl Ryder and Dr Steve Ball who were successful in their applications for University Proof of Concept funding, Karl who was awarded £24,000 and Steve who was awarded £25,000 jointly with Prof Roland Leigh (Physics).

## Leicester Chemist on University Challenge



Stanley French (second from the left), a 3<sup>rd</sup> year Chemist, represented the University on University Challenge. Unfortunately the team were unsuccessful in the first round but did well to reach the live TV shows.

## Outreach News

The Outreach team finished the academic year by hosting the University Summer School for students in years 7 to 9 and a Chemistry activity day for year 12 students.

At the Summer school, the participants spent their time solving a murder mystery and saving the planet with potatoes! The Chemistry activity day gave students at Wyggeston College the opportunity to experience a day as a university Chemistry student. They started the day extracting caffeine from coffee grains, followed by an interactive quiz and a Chemical Magic demo!

The academic year has already started for the Outreach team and BTEC students from Regent College have been to our teaching labs to learn about infrared spectroscopy and run their own reaction samples.

### CLEP RESEARCH GROUP

The Chemical Learning Enhancement and Pedagogy (CLEP) research group had a busy summer disseminating findings from their research at four national conferences.



The group's work on the impact of pre-laboratory simulations on the student learning experience and the use of a new Problem Based Learning induction activity were presented at Horizons in STEM Education (Edinburgh Heriot Watt), the HEA National Conference (Manchester), Enhancing Student Learning Through Innovative Scholarship (Sheffield) and Variety in Chemistry Education (York).



### CAREERS WEBINAR FOR CHEMISTRY POSTGRADUATES

In response to feedback from the postgraduate cohort at the annual Athena SWAN event in 2017 members of the Athena SWAN committee arranged a screening of the ChemCareers 2017 webinar for early career researchers. The Royal Society of Chemistry event aimed at PhD, Post-Docs and Early Career Researchers gave an overview of things to consider when considering a career in academia.



The event was attended by a range of postgraduate students and Post-Docs.

Several students reflected after the webinar that it was useful to find out more about grant application processes, and also highlighted how useful teaching experience and supervision of final year project students could be when seeking employment in the future.

### Profs. Ryder and Abbott awarded the Westinghouse prize 2016/17

Profs. Ryder and Abbott have been awarded the Westinghouse prize 2016/17 (Sponsored by Riley Industries Ltd) by the Institute of Materials Finishing. This award is for the best paper published in Transactions of the IMF, that has shown the most valuable development in the science and practice of electrochemistry in general and electro deposition in particular. The paper is entitled "Electrodeposition of Copper-Tin Alloys using Deep Eutectic Solvents", Andrew P. Abbott, Abubakr I. Alhaji, Karl S. Ryder, Michael Horne and Theo Rodopoulos, Trans IMF, 2016, 94, 104. Congratulations to Profs. Ryder and Abbott for this great achievement.



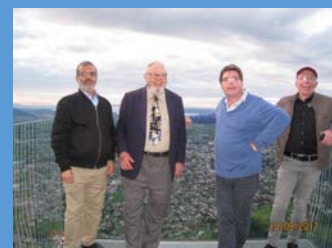
### Kuldip Singh competes in football tournament final at Rangers

Kuldip Singh (the department's experimental officer (X-ray)), with his football team, reached the final of an 11 a side football tournament. As a finalist Kuldip was lucky enough to play in the weekend tournament at Ibrox, the home of Rangers football club, in Glasgow.



To reach the final, Kuldip's team competed in pre-tournaments throughout the summer at various locations around the UK.

### DR BOB BLAKE AND PHD STUDENT SALEH OUHEDA PRESENTED AT CONFERENCE IN AUSTRIA



Dr Bob Blake and PhD student Saleh Ouheda presented at the first international conference on soft chemical ionisation mass spectrometry and applications to trace gas analysis in Austria from 18<sup>th</sup> to 20<sup>th</sup> September.

Bob gave a talk on his group's investigations into the chemistry of Fluorocarbon-sourced precursor ions reacting with n-Alkanes and a range of Volatile Organic Compounds. Saleh presented a related poster in which he described the use of this technique to analyse the breath of cigarette smokers. Bob reported that they generated interest in the subject, that the conference was one of the most enjoyable he has attended and that he is looking forward to the next conference which will be held in Prague in 2019.