Calendar of Events

**Phosphorus - Giver of Life - Universal Paradox of Biology**
Speaker: Professor Mike Blackburn
Date: Monday 1 June
Time: 1pm
Location: Dianna Bowles Lecture Theatre (K018) Biology Department

**11th International Conference on Renewable Resources & Biorefineries (RRB11)**
Date: 3-5 June
Location: Park Inn Hotel, York

**Chemistry Outstanding Demonstrator of the Year Awards**
Date: Friday 19 June
Time: 3pm—5pm
Location: B101

**Organic Seminar**
Speaker: Aaron Rossini
Title: Solid-state NMR using DNP hyperpolarisation
Date: Friday 5 June
Time: 11.30am—1pm
Location: F106

**Open Days**
Date: Fri 26 & Sat 27 June

**Inorganic Seminar**
Speaker: Aaron Rossini
Title: Solid-state NMR using DNP hyperpolarisation
Date: Friday 5 June
Time: 11.30am—1pm
Location: F106

**Inorganic Symposium**
Date: Thursday 11 June
Time: 4pm—6pm
Location: B101
Dr Kevin Cowtan of the Department of Chemistry is contributing to an international effort to debunk climate myths and help people understand the controversies around climate science. He has joined a team of leading climate scientists and climate science communicators contributing to a free Massive Open Online Course (MOOC), which started on 28th April.

The course, ‘Making Sense of Climate Science Denial’, is a seven-week programme featuring lectures, exercises and interviews with 75 scientific experts. University of Queensland Global Change Institute Climate Communication Fellow and MOOC coordinator John Cook says that the course tackles climate myths and exposes techniques used to mislead the public.

Dr Cowtan, of the Department of Chemistry at York, says: “No one wakes up in the morning and decides ‘I’m going to dispute the scientific consensus on the structure of the atom’. And yet people do exactly that with climate science. That’s really interesting.”

Dr Cowtan is best known for his work in X-ray crystallography, which has been cited extensively in scientific papers. However, he has also developed a new version of the historical global temperature record, which is seeing increasing use in the scientific community. He is collaborating on other projects with climate scientists worldwide.

A long standing interest in teaching and communicating science led to his involvement in climate. “Climate science has the most interesting communication problems of any field of science. Because climate science threatens our worldviews, we develop defence mechanisms to avoid the evidence”, he says.

As well as delivering lectures on the historical temperature record and the so-called ‘hiatus’ in global warming, Dr Cowtan has developed interactive software which will allow students to investigate the temperature record for themselves.

The course incorporates climate science and the psychology of climate change to explain the most common climate myths and to detail how to respond to them.

The uqX course is offered via the edX not-for-profit online learning platform. Participants can enrol at: https://www.edx.org/course/making-sense-climate-science-denial-uqx-denial101x

Thousands of students from more than 130 countries have already enrolled.
On the Science of Breaking Bad

Professor Dave Smith recently spoke at The Royal Institution in London as part of a sell-out event on 'The Science of Breaking Bad'. This event saw Dave talk about lots of the science from the popular TV show including the organic chemistry behind drug synthesis and the risks of using hydrofluoric acid to dispose of bodies. He also speculated on whether Heisenberg's product really was enantiomerically pure, and suggested a new explanation as to why it had its unique trademark blue colour. The event also featured a forensic psychologist talking about the extent to which Walter White fitted the profile of known criminals, and a screenwriter reflecting on how to bring science to the big screen. The event was hosted by Claudia Hammond, presenter of BBC Radio 4's 'All in the Mind'.

Suggestion Box

Reminder: there is a Suggestion Box located next to the pigeon holes in the foyer of A Block and one outside Room K167 for YSBL staff. Suggestions from staff are most welcome. All suggestions are discussed at the departmental communications meeting.
Sugar Structure: Not As Sweet As It Seems

Scientists at the University of York have identified problems with nearly half of the structural data on carbohydrate molecules available to the scientific community.

Carbohydrates, commonly known as sugars, are complex biological molecules linked to many fundamental cellular processes in living organisms. They are, for instance, essential to the function of the antibodies our immune systems use to identify and combat bacteria and viruses. However, new research by scientists at the York Structural Biology Laboratory (YSBL) in the University’s Department of Chemistry, published in *Nature Chemical Biology*, reveals that much of the deposited data on carbohydrate structures may be flawed.

Structural studies of large biological molecules such as proteins and glycoproteins (molecules combining carbohydrate and protein elements, also known as glycans) are crucially important in determining how these molecules function. Scientists use techniques such as X-ray crystallography to determine their molecular structure, and the resulting data is deposited in the worldwide Protein Data Bank (PDB) to inform further study.

Reporting the correct structures of glycans is increasingly important for approval of new drugs by regulatory bodies such as the US Food and Drug Administration. The intensifying focus on the pharmaceutical and therapeutic potential of glycoproteins is driving a rise in new protocols and techniques for their production, which is in turn increasing the rate of deposition of new carbohydrate-containing protein structures in the Protein Data Bank. This means a much wider range of data on carbohydrate structures is now available for statistical analysis.

A team at YSBL, comprising Dr Jon Agirre, Professor Gideon Davies, Professor Keith Wilson, and Dr Kevin Cowtan, has analysed the conformation and fit to experimental data of a subset of the deposited carbohydrates: N-glycan-forming D-pyranosides (chosen because they are all expected to be in the same naturally-favoured low-energy conformation, making the identification of anomalies easier). The analysis was carried out using software which Dr Agirre developed.

The study, funded by the Biotechnology and Biological Sciences Research Council (BBSRC) concludes that nearly two-thirds of N-glycan d-pyranosides show a poor fit to the experimental data.
Dr Agirre says: “64 percent of all N-glycan d-pyranosides show a correlation to density of less than 0.8, reflecting a poor fit to the experimental data. Indeed, 12 percent show a correlation smaller than 0.5. On top of that, about 25 percent of the studied sugars are in energetically improbable conformations; these are almost certainly wrong.”

Professor Davies adds: “This creates a vicious circle: publication and deposition of incorrect structures informs subsequent statistical analyses that suggest the deposited structures are normal.”

The researchers say that the development of improved strategies, practices and computational tools, in protein study in the 1980s, has not been reflected in the study of carbohydrates. They call for improved protocols for these key biological molecules too, and say the need is becoming more urgent because of the increasing focus on glycobiology in pharmaceutical research and development.

To read the paper Carbohydrate anomalies in the PDB, published in Nature Chemical Biology, visit http://www.nature.com/nchembio/journal/v11/n5/pdf/nchembio.1798.pdf

York Alumna, Jane Clarke made FRS

York Biochemistry Alumna, Jane Clarke is made a Fellow of the Royal Society

Professor Jane Clarke is distinguished for the rigorous physical chemistry approaches she has adapted and applied to understand protein folding and misfolding.

Jane (then Jane Morgan) lived in Alcuin College - but spent most of her time in Langwith studying Biology with Chemistry (Biochemistry). She was in York in the very early days (1969-72), the campus was small, only about 1600 undergraduates with only nine on her course.

Her memory is of an idyllic time: “The summers were always hot (!), big groups visited small campuses in those days (my first date with my husband was at a Who concert in central hall), work was fun. I still enjoy visiting both York campus (I have a collaboration with Jennifer Potts in Biochemistry) and the town regularly (to visit old university friends who never moved away)."

“I left to become a school teacher, and it was only at the age of 40 that I returned to academia to start my PhD. Without my 1st class degree from York that would not have been a possibility.”

For more details, see https://royalsociety.org/people/fellowship/2015/jane-clarke/
EPSRC Award for Liquid Crystal Project

Professor John Goodby and Drs John Moore, Stephen Cowling and Isabel Saez have been awarded £878,071 (full economic cost) for a 3-year EPSRC-funded project entitled “Nanoscale Engineering of Dyes for Liquid Crystal Device Applications” (EP/M020584/1).

This adventurous scientific programme is aimed at the rational design and controlled molecular engineering of dichroic dyes to create new classes of functional soft materials for a variety of applications. A specific outcome of the research will be the creation of new dichroic dyes by rational design strategies, including computer simulations, that will ultimately drive the synthesis of target materials and their incorporation into liquid crystal hosts. The design methodology is aimed at producing new insights into the processes of self-organisation and self-assembly in condensed fluids, which are expected to be generally applicable to molecular materials and devices. In particular, the research is targeted towards materials for applications in light scattering displays for use outdoors and in bistable devices, which can display information without the need for continuously applied electric fields.

British Liquid Crystal Society – Annual Conference in Sheffield

Mark Sims, a Year 4 PhD student working with Dr John Moore and Professor John Goodby, was awarded The Best Talk Prize for a young scientist at the Annual Conference of the British Liquid Crystal Society, which took place in Sheffield from 30th March - 1st April. His talk, entitled "A combined experimental and computational study of anthraquinone dyes as guests within nematic liquid crystal hosts", outlined some key aspects of his research that have been used to underpin our new EPSRC project on the nanoscale engineering of dyes.
During week 2 of the summer term the old B-ACS autosampler on the Bruker 300 AMX Spectrometer in teaching labs was replaced with a SampleXpress autosampler. The old autosampler had been in service on the Teaching Laboratories NMR since 1999 and having run an incalculable number of samples had finally reached the end of its economic life. It ejected its final sample on Friday 17th April at 3.30pm.

The new autosampler, signifies a £30k investment to compliment the £80k console and probe upgrades completed in 2012. The SampleXpress operates in a very different fashion to the B-ACS with samples now being loaded above the spectrometer, allowing them to be directly lowered into the magnet without having to pick the sample up. Sample changes typically take around 10 seconds, compared to around a minute before, reducing a proton run to under four minutes.

The autosampler was installed during Wednesday 22nd April and was ready just in time to receive its first undergraduate sample on Thursday lunchtime. The honour of the first sample going to Lucy Wheeler with her sample of β-deuterated phenethyl mesylate.

We would like to thank Richard Taylor for his support in finding the capital to enable this purchase, Simon Duckett and Richard John for their work in obtaining quotations and ordering and Bruker for the supplying and installing the autosampler.

Heather & David
Crossing the Bridge from Nanotechnology to Proteins

Dr Seishi Shimizu, of the York Structural Biology Laboratory, has supplied a key theoretical framework that has helped colleagues in Japan to provide new insights into a force that makes proteins fold. He has used chemical thermodynamics as a theoretical basis for the analysis of experimental data to reveal that salt bridges are strengthened significantly near hydrophobic surfaces.

A team from the University of Tokyo, the Japanese Institute of Material Science and Hokkaido University studied the strength of salt bridges using cutting edge nanotechnology. Dr Shimizu’s theory helped them estimate the strengthening of ion bridges, which turned out to be worth more than one and a half additional hydrogen bonding. The research was published in Science.

Scientists have long considered salt bridges a stabilising force in protein structures. What happens to them at a protein’s surface in contrast to them in isolation, however, has been the subject of scientific speculation for decades.

Dr Shimizu said: “We have used nanotechnology to enhance our fundamental understanding of how proteins fold. This has the potential to help scientists in biotechnology and drug design.”

The paper ‘Subnanoscale hydrophobic modulation of salt bridges in aqueous media’ is published in Science [http://www.sciencemag.org/content/348/6234/555.abstract]

Schematic representation of the structures of self-assembled monolayers tethered onto a silicon wafer electrode.
As part of his Peter Day Award from the RSC, Professor Duncan Bruce gave a lecture entitled: ‘Non-covalent Bonding and Amphiphilicity in Liquid Crystals’ at an Awards Symposium at Queen’s Belfast in a wide-ranging programme that included talks from Ian Paterson (Cambridge), Euan Brechin (Edinburgh), Thorri Gunnlaugsson (Trinity Dublin) and Tobin Marks (Northwestern, USA). David Cole-Hamilton (St Andrews and Dalton Division President) was on hand to present the awards on behalf of RSC. The day finished with the speakers joining the local section Annual Dinner in the beautiful Ulster Reform Club in Belfast city centre, followed by a customary Guinness in a local hostelry.

Being scheduled on a Friday before the May Bank Holiday, the visit provided an opportunity to visit the stunning coastline of Northern Ireland and what liquid crystal chemist would not delight at finding a columnar hexagonal phase of amazing proportions at the Giant’s Causeway (photo right).

Duncan gives the last of his Peter Day Award lectures at UCL at the end of the month.

The Department and Lauren, our receptionist, will benefit from a new reception area but in the mean time, Lauren remains as cheerful as ever in her bunker.

We are looking forward to the unveiling of the new reception area in time for Open Day on Friday 26 June. Please contact Simon Breeden if you would like more information.
Keisuke Tomono’s Internship in Toulouse

Green Chemistry PhD Student, Keisuke Tomono, has just completed a two week internship at INP-ENSIACET in Toulouse, France. The internship was funded by Short-Term Scientific Missions (STSMs) - COST.

Keisuke’s research interest is to examine how extracted volatiles, odours, from natural products influence human cognition and decision making in the field of commercial applications such as food markets and advertisements. One of the paradigmatic targets in his PhD is to extract valuable chemicals with their potential economic values from food wastes such as peels, husks, seeds or other inedible parts of fruits as well as vegetables. The objective of his short-term internship in ENSIACET, Toulouse, was to develop a design of, a so called, Veggies & Fruits Wastes Valorisation Wheel. On the wheel, potential values of vegetables / fruits which eventually remained unvalorised were displayed with sensory attributes, and the public were able to view, smell and touch them. The poster will be presented at the 11th International Conference on Renewable and Biorefineries (RRB11) in York on June 2015.

Dr. Thierry Talou’s (host for Keisuke’s internship) aroma working space where more than 100 essential oils and fragrances are displayed
Keisuke was invited to a French restaurant for dinner from the director of the ENSIACET, Professor Carlos Vaca-Garcia

Having a lunch in a Spanish restaurant with his group

Tea, Cakes and Pat-a-Pet

To help give our undergraduates a break during the revision period, we trialled providing tea and cakes for 3 Wednesday afternoons in weeks 5-7. Lots of students came along and enjoyed the refreshments in the undergraduate common room in B Block. On the final Wednesday, we had 2 special guests, Barley and Lupo from the Hearing Dogs for the Deaf who were not only impeccably behaved but proved very popular with students and staff.

Thank you to everyone who helped support these events and in particular, Richard Taylor for providing the funds.
Support Staff Boat Trip

On 14th May, the Chemistry support staff (technical and admin) enjoyed an afternoon on the River Ouse as part of a team-building and networking programme. The team Lego competition proved a great success with the graphene entry winning first prize (and the "build a construction taller than Jason" challenge easily surpassed!).
Lego competition winning team

The other entries (some rebuilt after not surviving the move)
CIEC Host an Open Afternoon for University Colleagues

CIEC have been part of the Department of Chemistry since it was set up in 1988. However, in that time CIEC has had several locations – some not on the central Chemistry site.

Now CIEC is back in the heart of the Department it seemed the right time to throw an Open Afternoon so our Chemistry colleagues and colleagues from other departments could visit us, meet the team and have a go at some of our best known activities!

Gayle Pook and Joy Parvin were on hand to explain how we operate to visitors from other departments who may not be so familiar with our work whilst the team of Advisory Teachers demonstrated some of the primary science activities being carried out in primary schools around the country.

Nicky Waller demonstrated a bubble-blowing activity from CIEC’s resource Kitchen Concoctions, Clare Warren was busy with a viscosity activity from Runny Liquids and Jane Winter hosted sand castle making from the Key Stage One resource Pencils, Poems and Princesses. Saleesh Kumar was on hand to show off one of the new Liquid Crystal activities which he has developed with Duncan Bruce (Chemistry Department, York) and CIEC to be piloted in York primary schools later this term.

Joy was delighted with the event; “It has been a great opportunity to meet colleagues from Chemistry and other departments and show them what we do for primary science. Our strategy is to contextualise science for primary and secondary pupils, and to make credible connections between
school science and the science that takes place in industry and higher education. Involving our colleagues with CIEC activities has hopefully demonstrated how we achieve this”.

Saleesh with the liquid crystal demonstration

The sand pit was a big success!

Nicky showing some children’s work to Bruce Gilbert

New Starters

**Dr David Carslaw**, Reader in Air Pollution Science  
Ext: 4178; Room: G/C/116; Email: david.carslaw@york.ac.uk

**Miss Mahima Sharma**, Postdoctoral Research Associate in YSBL  
Ext: 8833, Room: M223/B102, Email: mahima.sharma@york.ac.uk

**Dr Thomas Ronson**, Postdoctoral Research Associate  
Ext: 2596, Room: D216/D211, Email: thomas.ronson@york.ac.uk
Communications Group met on 16 April 2015 and discussed the following areas:

- Promotion of chemistry seminars (See http://www.york.ac.uk/chemistry/internal/staffinfo/workchem/howdoi/ for the guidelines on ensuring all seminars are promoted)
- The draft Departmental Communications Strategy – this will be disseminated once finalised
- Changes to Chemistry Update; it is likely that in the future two versions will be produced, one for internal use and one aimed at an external audience
- Production of a proforma for news stories (similar to the one for seminar promotion)
- Social Media Guidelines – please could all staff check the guidelines available at: http://www.york.ac.uk/admin/hr/resources/policy/social-media-guidelines.htm
- Changes to the Departmental external and internal website including suggestions from the University Digital/Marketing team; a review of all the website layout and information will be undertaken.

For full minutes please see:
http://www.york.ac.uk/chemistry/internal/staffinfo/committees/comsgroup/

Equality and Diversity Group

The Athena SWAN gold renewal documentation was submitted on 25 April 2015. Please have a read through at: http://www.york.ac.uk/chemistry/internal/staffinfo/committees/equaldiversgp/#tab-3 but note that the document is confidential for the time being and should not be shared with anyone outside of the Department. An Equality and diversity newsletter containing more information will be disseminated this term.

The E&D Group met on 5 May 2015 and discussed a number of areas including:

- Undergraduate grades by Gender
- Mental Health Issues
- Chemistry Pay Review
- Graduate School Issues

Full minutes will be available on the website soon and all previous minutes are available at: http://www.york.ac.uk/chemistry/internal/staffinfo/committees/equaldiversgp/#tab-2
Summary of SMG meeting on 4th March 2015

The issue of a pedestrian crossing on Innovation Way was again discussed - there are currently no plans for the local council to install one, but the Department will continue to press for this.

Other topics discussed were electrical (PAT) testing of the many devices in Chemistry, and how to keep this testing up to date, recent hazardous incidents, and fire drills. The use of the University Safezone smartphone app was for the latter also examined.

Protein Motions Determined from NMR Relaxation

Dr Meghan Halse of the Centre for Hyperpolarisation in Magnetic Resonance (CHyM) has helped to develop a new method to identify protein motions when they are heated. The research was published in Science.

Proteins, which are the building blocks of life, are not static but in constant motion. This motion allows a protein to perform its biological function by giving it the ability to change its three-dimensional shape so that it can interact with other proteins and molecules such as synthetic drugs.

In this work, a new method based on solid-state NMR spectroscopy was developed that identifies protein motions as they become active when the protein is heated up from very low temperatures (-168 C), where almost all motion is frozen, to body temperature. This unprecedented look at temperature-dependent protein dynamics provides a complete picture of the hierarchy of protein motions giving insight into their function and reconciling seemingly contradictory results from other analytical techniques that are only sensitive to a narrow range of temperatures and/or timescales.

Meghan was principally involved in the acquisition and processing of the raw NMR data and also contributed to the development of the tools used to analyse the NMR relaxation data and identify the different motional modes.

Dr Glenn Hurst Elected Member of the University Senate

Dr Glenn Hurst has been elected as a member of the University Senate. This is with effect from the 1st August 2015 for a period of 2 years. Glenn is looking forward to the challenge of maintaining and improving upon the high academic quality and standards across the whole University. Glenn is specifically enthusiastic about making contributions with respect to the approval of new courses, student supervision and admissions. Please chat with Glenn if you would like to learn more.
Dr Leonie Jones is New Employability and Diversity Officer

Dr Leonie Jones has been recruited as the new Employability and Diversity Officer for Chemistry and officially starts her new role in June. Leonie did her degree and PhD in Chemistry at York and is currently working in Green Chemistry as the Education and Training Associate where she has gained experience in skills training, providing advice on interview and presentation skills and management of training and networking events. Leonie will be based in the Chemistry Hub. We wish Leonie good luck when she starts.

New WACL Publication

Members of the Wolfson Atmospheric Chemistry Laboratory (WACL), including Marvin Shaw, Dr James Lee, Dr Ruth Purvis and Professor Alastair Lewis have published a paper on "Airborne determination of the temporo-spatial distribution of benzene, toluene, nitrogen oxides and ozone in the boundary layer across Greater London, UK" in Atmospheric Chemistry and Physics.

The paper is their interpretation of Volatile Organic Compounds (VOCs), Nitrogen oxides (NOX) and ozone (O3) concentrations measured on board the Natural Environment Research Council (NERC) Dornier-228 aircraft across greater London during the Ozone Precursor Fluxes in an Urban environment (OPFUE) campaign. It represents the first airborne measurements of these compounds across greater London.

The paper is available for download at : http://www.atmos-chem-phys.net/15/5083/2015/
In May, Professor North spent a week in Moscow as part of a Royal Society funded collaborative research project with the group of Professor Yuri Belokon’ at the Nesmeyanov Institute for Organoelement Chemistry. He gave lectures at both the Nesmeyanov Institute and Moscow State University and also visited the Zelinsky Institute for Organic Chemistry.

There was also time to visit the newly refurbished Moscow palace of Catherine the second, now a museum set in parkland in the Moscow suburbs and to sample authentic Russian, Azerbajani and Ukranian cuisine as well as Russian vodka of course. This was Professor North’s fifth visit to Moscow over a 20 year period and it was very interesting to see how things have changed over that time.
Eight members of the organic section (plus several ex-York people now in industry and academia) attended the Grasmere meeting earlier in the month. The programme included:

- a lecture from post-doc Tim Hurst (RJKT group) on the first evening;
- five posters from PhD students on Saturday evening: Sarah Chambers (RJKT/PAOB group), Ryan Gorman (RJKT group), Michael James (RJKT/PAOB group), Matt Lloyd (RJKT group) and Mary Wheldon (PAOB group);
- a lecture from Peter O’Brien entitled “Ringing the Changes: Functionalising Azetidines, Piperazines and Morpholines” on the Sunday morning.

Other notable events – Richard Taylor gave a keynote lecture (see separate piece), most of the York representatives completed the Katritzy Memorial walk from Grasmere over into Borrowdale (despite the high winds) and Mary Wheldon won another poster prize. Congratulations Mary!
On 8th May 2015, Professor Richard Taylor of the Department of Chemistry gave the Inaugural “Alan Katritzky Memorial Lecture” at the 22nd Grasmere International Heterocyclic Symposium International Conference. Professor Tim Jamison (MIT, USA), presented an accompanying Plenary Lecture.

Professor Alan Katritzky FRS was the founding Professor of the University of East Anglia Chemistry Department (1963) and then went on to found the Center for Heterocyclic Chemistry at the University of Florida, Gainesville in 1980. Professor Katritzky had an international reputation for his achievements in academic and industrial chemistry and for his many publications and books (over 2100 scientific publications, over 200 books as author or editor and over 300 successful Graduate Students). Professor Katritzky collaborated with Richard Taylor in a number of ventures, most notably as Joint Editors of Comprehensive Organic Functional Group Transformations II (7 Volumes, Elsevier, 2004) and as joint Editors of Comprehensive Heterocyclic Chemistry III (13 Volumes, Elsevier, 2007). The memorial lecture series was endowed following Professor Katritzky’s death in 2014 and Richard Taylor was honoured to present the inaugural lecture.
Organic Seminars
Chaired by Michael James & Lyndsay Ledingham

The first speaker of the session, chaired by Michael James, was Dr. Fabien Gagosz from the École polytechnique (pictured left). Fabien’s group utilises a broad range of AuI catalytic methods, of which he first described an intriguing AuI catalysed [1,5]-hydride shift methodology. In this process a hydridic proton (typically from the α-position of an ether such as THF) is transferred to a pendant AuI activated alkyne to furnish an intermediate oxonium ion and vinyl gold species; these species then react intramolecularly to afford a range of spiro/fused dihydrofurans and dihydropyrans. Next Fabien briefly detailed the transformation of propynyl arenes into indan-2-ones, utilising established methods to furnish reactive α-keto gold carbenes from the careful combination of an alkyne, AuI catalyst and pyridine N-oxide.

Overall chairing the session provided valuable insight into both π-acid catalysis and public speaking. I would highly recommend others to volunteer for this experience.

Our second speaker for the afternoon, chaired by Lyndsay Ledingham, was Professor Matt Sigman from the University of Utah (pictured on the right in the photo). Matt’s research focusses on using mechanistic information to develop new classes of catalysts for organic synthetic reactions and in this seminar he talked to us about his work into alkene functionalisation. He explained the use of special quinoxazoline ligands in palladium catalysts to achieve redox-relay enantioselective Heck reactions on α,β-unsaturated alcohols to form new ketone products. This approach has been extended to allow chain walking giving rise to compounds functionalised further from the ketone, for example at the γ or δ positions. This fascinating insight into Matt’s research over the past few years lead to a very enthusiastic discussion which continued well into the following wine reception.

Being given the opportunity to chair Matt’s talk was an incredibly valuable experience. Not only did it allow me the experience of speaking in front of the whole of the organic section and the chance to engage with the speaker more than most of us usually do at a seminar, it also made me realise how important the job of a chair is in making the speaker feel welcome and comfortable and in helping their lecture go smoothly.
Many congratulations to Dr Sarah Moller (Atmospheric) and Dr Will Unsworth (Organic) who have both recently been awarded independent fellowships to carry out research in York.

Sarah successfully applied for a Natural Environment Research Council (NERC) Knowledge Exchange Fellowship. The fellowship entitled Maximising the value of NERC research: Facilitating knowledge exchange between the UK atmospheric science community and Defra will commence on 1st September 2015 for a period of 3 years. The primary aim of this fellowship is to facilitate effective communication between the UK atmospheric science research community and Defra’s Atmosphere and Industrial Emissions Team. This will be achieved through the development of longer-term, more sustainable working relationships between these two groups increasing the potential for impact from NERC air quality research in UK government, public policy and Europe.

Will has been awarded a Leverhulme Early Career Fellowship based on a research proposal entitled Dial-a-Macrocycle: Designer Macrocycles via Successive Ring Expansion, which concerns the development of new iterative synthetic routes to functionalised macrocycles and an exploration of their properties and applications.

Professor James Clark gave a Keynote lecture at the Plant-based Bio-economy meeting in Halle, Germany in May. The region has been selected by the German government to lead on its bio-refinery developments. James has joined the Eni Scientific Commission - the group that includes the noble laureate Harry Kroto, and decides each year on the prestigious Eni awards for discoveries in Energy and the Environment.
Admin Fundraising Day

The Chemistry Admin team held a STARS andStripes fundraising day on 20 April and raised £600.51. Which was split between Mind, British Heart Foundation and Yorkshire Cancer Research. Activities on the day included:

- A bake sale and best-dressed cake competition (the competition, judged by Richard Taylor (who was disappointed to discover the judging did not include tasting!), had three equal winners: Katrina Sayer, Mike Clark and Rozi Thearle)

  (Jenny is standing in for Rozi!)

- Guess the name of the Star Bear – the name was Ruth and Alice Duckett guessed the name

- Guess the number of sweets in the Star Jar – the number was 332 and the two closest guessers were Rachel Crooks and Mazin Al Rushedi

- Find the key to the lock – we had one winner who found the key and this was Philip Groves

- A raffle – first prize was won by Adrian Whitwood (photo right)

- Guess the Star baby competition – both Sarah Holberry and Jess Milani guessed 11 babies correctly (please see below for the correct matches)

- Face Painting and tattoos
We also encouraged staff and students to dress up in stars and stripes with some interesting results.

Thank you to all of the admin team who gave up their time both before and during the day and to everyone else who took part and especially those who contributed to the cake sale. Ideas for the theme of the next fundraising day are gratefully received!
Lisa Mayer
Admin Team

Eliza Bonello
Admin Team

Rob Wood
Admin Team

Dr. Andy Goddard
Guess the Baby Competition Answers Continued

Prof Ian Fairlamb

Rachel Crooks
Admin Team

Prof David K Smith

Dr Kirsty Penkman