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Calendar of Events

UCAS Interview Afternoons
Date: 6, 7, 9, 21, 23 & 30 January
Time: 12pm - 4pm
Location: DS/008

Graduate Research Seminars
Date: Wednesday 15 January
Time: 2pm-3.30pm
Location: A101

Departmental Seminar - RSC Award Lecture
Date: Wednesday 22 January
Time: 2pm - 4pm
Location: A101

Graduation Drinks Reception
Date: Saturday 25 January
Time: 10.30am - 12.30pm
Location: A122

Date of Next Issue: 31st January 2013
First CHEM21 Young Researchers Network Meeting

The first CHEM21 Young Researchers Network Meeting was held at Kings Manor in York on 13th November 2013. The aim of the meeting was to bring together PhD students and Post-Doctoral researchers from across the consortium to increase communication, encourage familiarity across work packages and share scientific insight.

The day consisted of a mixture of networking activities, brainstorming and a series of talks from both academics and industrialists on the theme of ‘Preparing young researchers for 21st century industry’.

Feedback from the day was positive and will inform the content of future events. The networking activities were particularly popular; “enjoyable, informative, met lots of new people, learned about other projects in Chem21. Would definitely like to attend future meetings”
Just after the end of term, Duncan Bruce decided to leave behind the cold of a UK December and went off balmy to Malaysia for a week, both to visit collaborator Professor Norbani Abdullah (who was in York in 2012 for four months) and also to attend the International Conference on Ionic Liquids held on the beautiful island of Langkawi. He gave two lectures and a workshop at the University of Malaya in Kuala Lumpur and spend a good deal of time both there and at the conference talking with Norbani’s students, some of whom are pictured below.

There was also time for a little cultural tourism including a visit to a Malay wedding and to the National Planetarium, wherein was a most wonderful Periodic Table which is shown below.

At the conference, Duncan delivered a lecture entitled 'Liquid-crystalline Ionic Liquids: Synthesis, Structure and Solvents' describing the collaborative work being carried out with John Slattery and their former joint postdoctoral fellow, Yanan Gao.
Green Chemistry goes to India

In December 2013, staff and students from the Green Chemistry Centre attended back-to-back conferences in India. First we headed to Delhi for the *International Workshop on Green Initiatives in Energy, Environment and Health, 2nd-3rd December*. For the first time, green chemistry centres from around the world gathered together to discuss how green chemistry can have an impact on some of the most pressing issues facing society, and how best to work together to create real progress in promising areas of research. With participants from the USA, Canada, Mexico, Brazil and South Korea, alongside the UK and Indian representatives, the meeting was a great chance to get up-to-date views of how the field of green chemistry is developing across the globe.

During the workshop, a discussion session highlighted the need for a strong network of International Green Chemistry Centres to increase knowledge transfer and skill sharing between institutions specialised in different approaches to green chemistry, and to provide support for budding green chemistry centres. There was also an extensive poster session, and Giulia Paggiola came away with a prize for her work on biosolvents and biocatalysis under the CHEM21 project.
Immediately after the Delhi workshop ended, most of the York team flew to Mumbai, where they were joined by Jeff Eaves and Mark Gronnow from the BDC for the **Industrial Green Chemistry World 2013, 6th-8th December**. IGCW was a busy conference with a great mix of academia and industry. The York exhibition gained much interest and we came away with a great range of contacts to further our academic research and get our products and ideas into an industrial setting. James Clark and the GCCE team also won an award for Green Innovation as a special recognition of the long-term commitment to creating exceptional collaboration between academia and industry.

**YouTube Videos**

To celebrate last month’s RSC chemistry week (which had the theme of ‘Health’), Leonie Jones and Katie Privett from the green chemistry TEN (Training Education and Networks) produced a series of short YouTube films about the work of the departments five CHEM21 PhD students.

CHEM21 is a €26.4 European project which aims to develop greener and more sustainable methodologies for producing pharmaceuticals and to inspire the next generation of chemists.

Each student was asked to give a brief overview of their project, a couple of highlights and explain how their work fits into the bigger picture. The projects range from greener silica, copper and palladium catalysis, the use of green metrics and biocatalysis in biorenewable solvents. The videos were released at lunch time each day and were publicised though social media such as Twitter.

The videos have proved very successful with almost 1000 views so far and very positive feedback from our CHEM21 partners and funding body IMI.

Following the GGCE’s success at last month’s Green Gown awards we have been asked to produce a video and case study to be used for promotion of both the awards and winners.
Research Visit to France

Professor Ian Fairlamb visited two Chemistry Departments in France during December 2013. The first visit was to examine PhD Candidate, Samuel Aspin, who has worked in Professor Olivier Baudoin’s research group in Lyon. His project was focused on sp\(^3\)-C-H bond activation reactions at palladium. Some of you may recall that Sam was an undergraduate student in Chemistry in York, being part of the old Halifax college. Sam did an MChem Industrial placement at BayerCropScience before moving to Lyon. He also took a one year 'sabbatical' after the MChem degree, working and skiing in the Alps before going on to PhD study. A photograph of Sam and the examiners is given below. Sam is moving on to a post-doctoral research position in Canada in the new year and we wish him the best for the future.

![Photograph of the examiners (Supervisor, Prof. Baudoin, far left - and Sam Aspin, middle).](image)

Ian delivered a research seminar in Lyon titled “A multi-ensemble of catalyst species in Pd-catalysed cross-couplings”. The second visit was to the beautiful city of Dijon, specifically the ‘Institut de Chimie Moléculaire, de l'Université de Bourgogne’, where Ian delivered another research seminar. There was time to catch-up with a good friend, Professor Jean-Cyrille Hierso, who has shared interests in the design and development of Pd catalysts for cross-coupling processes.
Outreach: Christmas Demonstration Lectures

Dr. Jason Lynam and Professor Ian Fairlamb delivered four Christmas Demonstration Lectures in December 2013 at Wetherby High School. The first was delivered to year 10 students (ca. 150). Typical demonstrations included: 1) pH changes using universal indicator and solid CO$_2$ / addition of sodium bicarbonate to red cabbage water; 2) production of hydrogen from graphite pencils in water using a 9 volt PP3 battery; 3) degradation of H$_2$O$_2$ using fresh liver to give O$_2$, which was then reacted on with toluene in a balloon; 4) the Christmas dinner digestion with hydrochloric acid; 5) ice-cream making using both ice/NaCl and liquid nitrogen. The demonstration that received the most interest was the liquid nitrogen frozen orange slice, which quickly turned to an orange power at -196 °C or could be shattered into thousands of pieces. Similar demonstrations were shown to the primary school children (aged 9-10), in three lectures, where there was direct involvement in the solids, liquids and gases demonstration. All the lectures were well-received – booked again for Christmas 2014!

Primary schools involved include: Crossley Street Primary, Deighton Gates Primary, St. James Primary, Scholes Primary, Sicklinghall Primary, Grange Farm Primary, Whinmoor St. Paul’s Primary and Gledhow Primary.
A great night was had in the Royal York Hotel on 11 December with an excellent mix of students and staff from the Department. With the aid of ethanol catalysis, party poppers and balloons, great merriment was had by all and thanks are due to Lyndsay and Josh for all their organisational skills.

Richard Taylor regaled the group with the top 10 CHEMISTRY CHRISTMAS CAROLS - the top 3 were: 1. The Chemistry Teacher's Coming To Town; 2. I'm Dreaming Of A White Precipitate; 3. Deck The Labs. In a moment of madness, he offered a prize for any table that could compose a better carol. Several entries were submitted and the winner is reproduced to the right (if Chris, Phil and Ellis see Richard he will pass on the prize).

Taylor the Head of Chemistry,
Had a very shiny tie,
And if you ever saw it,
You would just collapse and die.

All the other Academics,
Said his work was full of lies,
They never thought poor Richie,
Would ever win a Prize!

Then, one foggy Christmas Eve,
The RSC came to say,
"Richie, with your tie so bright,
Would you make a speech tonight?"

Oh, the Academics loved him,
And they shouted out with glee,
"Richie, Head of Department,
You're the God of Chemistry!"
The 2014 Learning and Teaching Conference will be a chance for colleagues to discuss programme level issues, to see the bigger picture and to discuss exactly what it is that we want our students to achieve through their engagement with our programmes of learning.

**Workshop themes:**
- setting expectations and mapping progression through a degree
- how student development and the concept of ‘graduateness’ can inform programme design
- the relationship between philosophies of learning and programme design
- defining assessment goals across programmes
- inclusivity, employability, internationalisation and sustainability – balancing external demands on programme design
- using technology to support programme coherence
- designing effective one year Masters programmes
- planning for skills development through skills frameworks

**Posters:**
- any learning and teaching theme

**Call for:**
**DISCUSSION PAPERS, SHOWCASES AND POSTER PRESENTATIONS**

The Deadline for submissions is Friday 10 January 2014

[www.york.ac.uk/staff/teaching/conference](http://www.york.ac.uk/staff/teaching/conference)
NEPICs Golf Day Raises Vital Funding for CCI

The annual Nepic Golf Day, held at Slaley Hall on 5th September 2013, was hailed as the best yet. During the course of the day, players representing a wide range of companies in the north east region also took part in the annual Children Challenging Industry (CCI) raffle and raised a very generous £1030. The presenters of the prizes, George Ritchie of main event sponsor Sembcorp and NEPIC’s Stan Higgins explained the importance of the CCI programme to the industry and thanked the golfers for their kind donations.

George Ritchie of Sembcorp presenting the cheque to Jenny Harvey (left) and Nicky Waller.

Help!!! Please Turn Me Off…..!

The Green Impact Group would like to wish everyone a happy and safe holiday.

Over the Christmas break, please can you ensure the following is turned off (preferably turn off at the wall):

- Computers
- Printers
- Monitors (especially important as the monitor uses up to 50% of energy - even when it is on ‘standby’ i.e. an orange light).
- Lights
- Photocopiers
- Any equipment that does not need to be kept running over this period.
Chris Rhodes’ Chemistry Christmas Song

Opening the locker in workshops, where any small broken electrical items are put to be fixed, will help put you into the festive spirit, thanks to the song you will hear. Sung to the melody by Wham!

Last Christmas
I gave you my hotplate
But the very next day you melted the cable.
This year
To save me from repairs
I'll give it to a responsible person.

Rudolph had just discovered how flammable Christmas decorations were.
York Print Plus Information

There is a new section on the Computers and Chemistry web site with information about York Print Plus. I have had a number of queries about YPP charging, the following article will hopefully clarify things.

You might not be aware that the printer displays a charge for each job you submit on the printer screen. The number to the left of the job is the charge for the job. However at this stage of the proceedings all jobs display a charge at the higher student rate, it is only when the job is processed that the rate is recalculated at the cheaper staff rate.

The charging rate depends on whether the job is in colour, is printed single-sided or duplex, whether it is printed on a colour or black and white printer and whether the job has been submitted as print as gray scale.

Charging rates for staff per side of A4 paper are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Black and White</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single-sided</strong></td>
<td>2p</td>
<td>6.5p</td>
</tr>
<tr>
<td><strong>Duplex</strong></td>
<td>4p</td>
<td>13p</td>
</tr>
</tbody>
</table>

Considering a 10-page black and white document:

- Printing single sided 10 × 2p = 20p
- Printing duplex 5 × 4p = 20p

When colour documents are considered the charging regime becomes more complex.

Colour printing is charged dependent on the number of colour pages. If a page has more than a single pixel of colour on it will be charged at the colour rate. To be charged at the black and white rate a page must either have no colour pixels, be a colour page submitted to a black and white printer or you have chosen to submit the job from the application to be printed as black and white or grayscale.
Consider two print jobs:

**Print job 1**

Total number of A4 pages: 29

Double sided: No

Colour: Yes
Black & white pages: 1 single sided page (1 page × £0.02 = £0.02)

Colour pages: 28 single sided pages (28 pages × £0.65 = £1.82)

**Total job price: £1.84**

**Print job 2**

Total number of A4 pages: 46

Double sided: Yes

Colour: Yes
Black & white pages: 16 sides printed double sided (8 pages × £0.04 = £0.32)

Colour pages: 30 sides printed double sided (15 pages × £0.13 = £1.95)

**Total job price: £2.27**

**Stamp Recycling**

The Stamp Recycling Scheme is run by the Green Impact Team. You can collect your stamps at home and bring them to work to recycle by putting them in the clear plastic wallet on the left hand side of the staff pigeon holes. It doesn't matter if they have already been used, but please leave approximately 1cm of envelope around each stamp. Your stamps will go to the RNIB Stamp Appeal. For more information, please see [http://www.rnib.org.uk/getinvolved/fundraising/Documents/stamps%20poster%20revised.pdf](http://www.rnib.org.uk/getinvolved/fundraising/Documents/stamps%20poster%20revised.pdf)
Graduate Research Seminar

The next Graduate Research Seminar will take place on Wednesday 15 January 2014 at 2pm in A101.

PhD student speakers will be:

**Kate Horner**: Mission (Im)Possible: Ghost Protocol- Advances in molecular understanding

**Jenni Timm**: Structural and functional characterisation of the M17 family Leucyl Aminopeptidases from parasitic Kinetoplastids.

**Richard Gammons**: From Feedstock to Fuels! Can Ionic Liquids and Robots Provide an Alternative Pathway in Optimizing Pre-treatment Methods?

**Adam Pinder**: Identity and preservation state of organic materials within archaeological burial environments

This is a great opportunity to find out about research taking place in the department, and to chat to students in other research groups.

Please make a note of the date in your diary and come along.

Graduation Drinks

The January Graduation ceremony for Chemistry will take place on the morning of Saturday 25 January 2014, at 9.30.

A drinks reception will be held in the Department from 10.30 in A122 for graduates and their guests. Bucks fizz, coffee and cake will be available.

Members of staff are invited to attend to share a celebratory drink.

2014 Bruker Poster Competition

The 2014 Bruker Poster Competition will take place on Thursday 20 March 2014.

This event will be for all 3rd year PhD students to participate in.

The day will run as previous years with poster judging taking place in the morning, followed by a seminar from a guest speaker in the afternoon.

Further details will be publicised in due course, but for now this is a date for your diary.
Green Chemistry Student Wins RSC Poster Prize

Congratulations to first year Green Chemistry PhD student Andrea Muñoz García (below far left) who has won the first place poster prize at the RSC Postgraduate Symposium on Nanotechnology, which took place on 16 December at the University of Birmingham. Her poster highlighted research being carried out on Starbons®, a novel family of mesoporous materials derived from polysaccharides.