

# Chemistry Update

Newsletter 305, 25 January 2019

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## Calendar of Events

### UCAS Post-Offer Visits

Dates: 29 & 31 January;  
7, 12, 18 & 26 February  
Time: 12pm—4pm

### Physical Seminar

Speaker: Prof Helen Fielding,  
University College London  
Date: Wednesday 30 January  
Time: 1pm—2pm  
Location: C/B101

### Organic Seminar

Speaker: Dr Igor Alabugin,  
Florida State University  
Date: Wednesday 30 January  
Time: 3pm—4pm  
Location: C/A101

### Hidden Stories of LGBT+ Scientists

Speaker: Professor David Smith  
Date: Wednesday 13 February  
Time: 1pm—2pm  
Location: C/A122

### Inorganic Seminar

Speaker: Dr Kylie Vincent,  
University of Oxford  
Date: Wednesday 13 February  
Time: 1pm—2pm  
Location: C/B101

### UCAS Pre-Offer Visit

Dates: 14 February  
Time: 12pm—4pm

### Departmental Seminar

Speaker: Prof Zoe Pikramenou,  
University of Birmingham  
Date: Wednesday 20 February  
Time: 1pm—2pm  
Location: C/A101

### Cryo-EM Scientific Meeting

Date: Wednesday 20 February  
Time: 2.30pm—5pm  
Location: Williamson Rooms,  
Biology H block

### Organic Seminar

Speaker: Prof Hon Lam, University  
of Nottingham; Dr Robert Phipps,  
University of Cambridge  
Date: Wednesday 27 February  
Time: 1pm—3pm  
Location: C/B101

Date of Next Issue:  
22 February 2019

## 2019 Process Chemistry Award

**Professor Ian Fairlamb has been awarded the 2019 AstraZeneca, GlaxoSmithKline, Pfizer and Syngenta Prize for Process Chemistry Research.**



This annual prize is awarded to a UK-based academic whose research is relevant to process chemists and engineers, and has the potential to be applied to large-scale manufacturing. The award was established to encourage the development of new chemical reactions and technologies that solve problems in industrial process chemistry.

The award will be presented to [Professor Fairlamb](#) at the forthcoming [SCI Process Development Symposium](#) being held in Cambridge on 27—29 March 2019. He will receive a trophy and a cheque to support further research. It is the 14<sup>th</sup> time this award has been made, and the 2<sup>nd</sup> time that a York academic has won the award (the previous winner was [Professor Peter O'Brien in 2017](#)).

Professor Ian Fairlamb is receiving the award in recognition of his expertise in transition metal catalysis and the mechanistic theory underpinning these industrially-valuable processes. In particular, he is interested in developing deeper understanding of a variety of metal-catalysed reactions and applying his findings to improve widely-used cross-coupling methodologies. This has included the development of new ligands and catalysts, as well as studying the role of palladium nanoparticles (PdNPs) in Suzuki-Miyaura, cyanation and C-H functionalisation reactions.

Several key breakthroughs from the Fairlamb research group have been influential in industrial process chemistry.

By recognising the importance of water in palladium-catalysed aryl cyanation, research from the Fairlamb group has allowed such reactions to be performed with as little as 7 parts per million of palladium ([React. Chem. Eng. 2019, 4, 122-130](#)). This methodology is currently being exploited in the agrochemical industry by Bayer AG.

The unexpected formation of nitrite-containing palladium complexes on the reaction of ligands with commercial sources of palladium acetate reported by Fairlamb highlighted the importance of knowing the purity and precise form of this reagent in all processes destined for large-scale and/or long-term manufacture ([Chem. Sci. 2012, 3, 1656-1661](#)). A perspective on the industrial importance of this influential work was written by chemists at Johnson Matthey ([Chem. Eur. J. 2016, 22, 7686-7695](#)).

## ACU Blue Charter fellowship success

Green Chemistry first year PhD student Parul Johar has been awarded an ACU Blue Charter fellowship of £10,000.



Parul is one of a cohort of 35 successful applicants to be awarded the prestigious [ACU \(Association of Commonwealth Universities\) Blue Charter fellowship](#). The programme provides funding for talented researchers to travel from an ACU member university to a host institution in another country, for research work themed around addressing the critical global issue of marine plastics, which are drastically affecting the health of our oceans and marine life.

Parul is carrying out a PhD in the [Green Chemistry Centre of Excellence \(GCCE\)](#), Department of Chemistry, University of York, under the supervision of [Professor James Clark](#), [Dr Avtar Matharu](#) and [Dr Rob McElroy](#). She is investigating the use of certain types of plants with the ability to capture metals as feedstocks for making metal-based catalysts that can be used in important industrial chemical processes.

The fellowship awards Parul a grant of £10,000 to fund a research visit to the University of Melbourne, Australia, from January 2019 to March 2019, where she will be collaborating with Professor Amanda Ellis.

The [Commonwealth Blue Charter](#) is an agreement by all 53 Commonwealth countries to actively co-operate to solve ocean-related problems and meet commitments for sustainable ocean development. The Blue Charter fellowships will support world-class research and innovation in marine plastics, and help fulfil the objectives of the Commonwealth Marine Plastics Research and Innovation Framework.

Reflecting on her fellowship success, Parul said: "I am honoured to be one of the recipients of the ACU Blue Charter Fellowship. My research project will cover the broad areas of sustainable design, plastics waste management and Green Chemistry".

Also reflecting her talent, Parul was awarded a [Wild Platinum Scholarship](#) earlier in the year to fund her PhD studies. This Scholarship Fund was established by Chemistry alumnus, Dr Tony Wild, to fund Chemistry research students at York.

### Learning and Teaching Conference 2019: Call for submissions

The annual Learning and Teaching Conference will take place this year on Friday 21 June, and organisers would like to invite colleagues to contribute through workshops or lightning talks on the conference theme, or posters on any aspect of teaching and learning. The deadline for submissions is **Monday 18 February**. Please [complete the Call for Contributions form](#) or [find out more](#).



## Chemistry staff feature in Professional@York Awards ceremony

The Professional@York awards have been developed by the University of York to celebrate, acknowledge and reward the achievements of individuals and teams working in support roles across the University. The Awards are held every year and are open to all support staff. There are a number of different categories that individuals and teams can be nominated for, which are then reviewed by a panel of judges.

On the afternoon of 13 December 2018, professional staff from across the University met in Central Hall to hear the outcome of this year's awards and listen to some short presentations, highlighting the work done by support staff at the University. The afternoon ended with festive nibbles and a chance to network with colleagues.

A number of Chemistry support staff were nominated and two teams won their categories (see below), congratulations to all involved.



**Health, Wellbeing and Resilience Project: Chemistry Mental Health Support Team** - Gregg Addicott, Liza Binnington, Helen Burrell, Helen Coombs, Emma Dux, Leonie Jones, Moray Stark, Sharon Stewart and Adrian Whitwood



**Outstanding Support to Teaching: Chemistry Undergraduate Admissions Team** - Lisa Mayer, Katrina Sayer and Nick Abbott

The other nominations were:



**Unsung Hero:** Helen Coombs and Jing Wood

**Outstanding Support to Research and Impact:** Andy Goddard

**Outstanding Project of the Year:**

- **Technician Commitment Delivery Project**  
**Team:** Simon Breedon, Lucy Hudson (Biology) and Abby Mortimer
- **Chemistry Google Working Group:** Gregg Addicott, Matthew Badham, Katy Brooke, Jo Eastwood, Lisa Mayer, Sophie Palmer and Denise Woodhouse
- **The TechYork Committee:** From Chemistry - Liza Binnington, Helen Burrell, Graeme McAllister
- **Online Timetable Project Team:** Adrian Whitwood and academic/support staff from other departments

Matt Thompson from Estates and Campus Services won the Outstanding Project of the Year category for delivering the Chemistry Helium Recycling system; he was jointly nominated by Chemistry and Estates.

Details of all the award winners and the projects can be found on [this webpage](#).

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## New starters

**Dr Alyssa-Jennifer Avestro**, Royal Society Dorothy Hodgkin Fellow  
Room: C/E204; Ext: 8962; Email: [alyssa-jennifer.avestro@york.ac.uk](mailto:alyssa-jennifer.avestro@york.ac.uk)

**Dr Suranjana Bose**, Green Chemistry Research Technician with Paul Elliott  
Room: C/F120; Ext: 4549; Email: [suranjana.bose@york.ac.uk](mailto:suranjana.bose@york.ac.uk)

**Dr Richard Gammons**, Green Chemistry Research Technician with Dr Hannah Briers  
Room: C/F120; Ext: 4549; Email: [richard.gammons@york.ac.uk](mailto:richard.gammons@york.ac.uk)

**Kate Smith**, PDRA Air Pollution Science with Prof Ally Lewis  
Room: C/G116; Ext: 4754; Email: [k.smith@york.ac.uk](mailto:k.smith@york.ac.uk)

**Will Duckworth**, Teaching Laboratories Demonstrator with Dr Nick Wood  
Room: C/B103; Ext: 5872; Email: [will.duckworth@york.ac.uk](mailto:will.duckworth@york.ac.uk)

**Caroline Casey**, Programme Evaluator (CIEC) with Dr Maria Turkenburg  
Room: C/B013; Ext: 2562; Email: [caroline.casey@york.ac.uk](mailto:caroline.casey@york.ac.uk)

Hello!



## Salters' Graduate Award success

Alice McEllin, first-year PhD student in the Department of Chemistry, was one of five recipients of a Salters' Graduate Award for 2018. This national competition, run annually, seeks to find the best five graduating students in Chemistry from across the UK. The award was announced in the summer.

Salters' rubric reads: "The Awards were established to encourage able students of chemistry and chemical engineering who show the potential to occupy leading positions in public life, either by employment in the chemical or related industries, or more generally in employment that supports the industrial life of the UK."



Alice McEllin receiving her award from the Master of the Salters' Company – The Hon. Philip Remnant and Dr Emma Sceats, Chief Executive Officer of Isogenica and Salters' Chemistry Graduate Award winner 2002.

### Soapbox Science in York this summer - Call for speakers

[Soapbox Science](#) is a novel public outreach platform for promoting women scientists and the science they do. After the success of last year's event, there will be a Soapbox Science event in York city centre again this June. Women scientists at all career stages from PhD to Professor are welcome to apply, and support and training are provided for speakers - and a soapbox of course! Deadline for online applications: 1 March 2019. Find out more about taking part and apply [here](#). For more information please contact: [andrea.harper@york.ac.uk](mailto:andrea.harper@york.ac.uk).

## Tribute to Green Chemistry Alumnus Professor Egid Mubofu

Professor Egid Mubofu, who obtained his PhD in the Green Chemistry Group at York, and was recently appointed Vice Chancellor at the University of Dodoma in Tanzania, has sadly died at the age of 53.



Egid joined the University of York in 1997 and received his PhD in Chemistry in 2001, supervised by [Professor James Clark](#) and [Dr Duncan Macquarrie](#).

Professor James Clark expressed his condolences: "It is with deep regret that we announce the death of our much admired colleague and friend, Professor Egid Mubofu, at the young age of 53. Egid was a PhD student of mine many years ago and thereafter had a stellar and distinguished career including senior roles in the University of Dar es Salaam, the Director General of the Tanzania Bureau of Standards and most recently the Vice Chancellor of the University of Dodoma. Egid was a great ambassador for Green Chemistry in Africa and globally. He was also highly intelligent, charming and modest and he will be very much missed. I am sure that you will join me in sending our deepest condolences to his family... he will be evergreen."

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## Dr Glenn Hurst gives invited talk at Future Teacher Conference



On 9 January, [Dr Glenn Hurst](#) was invited to present his work on innovative use of social media in higher education at the Future Teacher 3.0 Conference in the Piazza Building at the University of York. This national conference celebrates technology-enhanced learning with particular highlights from the day being flipped learning, inclusivity in the classroom and assessment design.



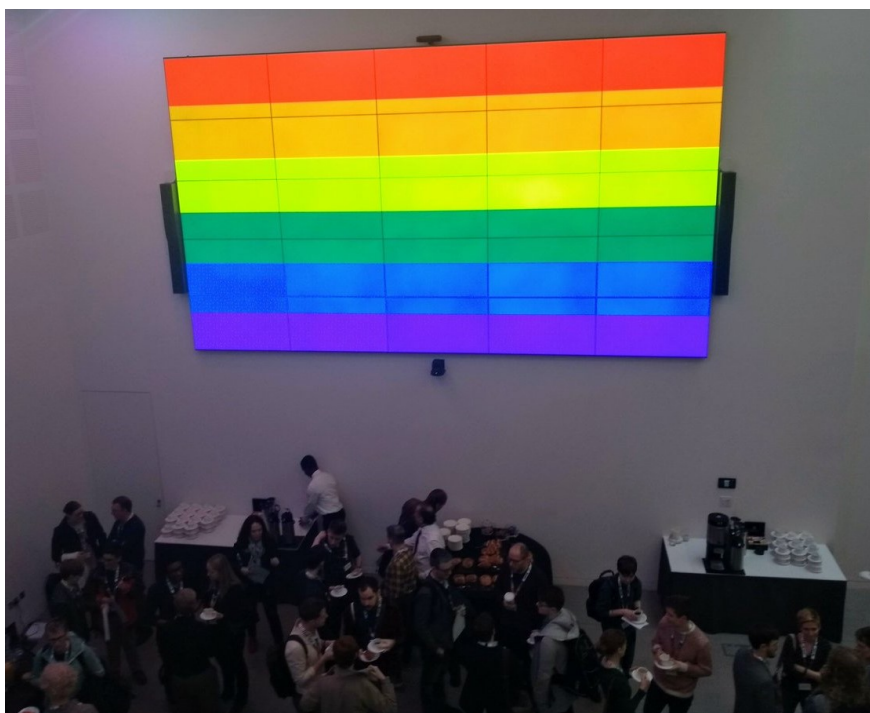
## LGBT+ STEMinar 2019

*Written by Alex Palmer, Year 4 MChem student*

On Friday 11 January, four members of the Department of Chemistry (a mix of staff and students) attended the fourth annual LGBT+ STEMinar at the new Institute of Physics building in London. The event brings together LGBT+ scientists from across disciplines to talk about their work, connect with others, and discuss some of the challenges of being out in STEM.

The opening keynote speaker this year was Dr Izzy Jayasinghe, who also spoke last year in York. Izzy spoke about finding solace in STEM as an LGBT+ person, the importance of role models, and her work on optically resolving calcium ion channels in cardiac muscle. She also discussed the importance of not underestimating people's capacity for understanding science, but to give them the tools and to call out opinion masquerading as scientific debate.

There was a huge diversity in subjects presented, from Greenland glaciers and island finches to quantum computers and machine learning. Enthusiastic discussion continued on Twitter, with #LGBTSTEMinar19 trending in the UK during the conference.



During the panel discussion, attendees pushed for a more inclusive STEMinar going forward: advocating for awareness of intersectionality, more speakers who were people of colour, and asking what could be done to make the STEMinar more diverse. In the closing keynote, Professor Peter Coles looked back on his own career and the progress made in astrophysics and in LGBT+ rights. He highlighted this same need to keep pushing - every scientific advance brings new questions, and every advance in LGBT+ rights brings new challenges.

Niamh Kavanagh, one of the speakers, summed up in a tweet what makes the STEMinar special: "When people don't feel like they have to hide... their true passion can shine through".

The steering group for the LGBT+ STEMinar (of which Dr Derek Wann is a member) announced at the meeting that in 2020 the event will be held at the University of Birmingham and in 2021 it will go to Oxford. To learn more about the conference and read about the work of LGBT+ people in STEM, please visit the [LGBT STEM blog](#).

- Alex Palmer, Year 4 MChem student



## Hidden Stories of LGBT+ Scientists | Talk

### Hidden Stories of LGBT+ Scientists | Talk

Speaker: Professor David Smith, Department of Chemistry, University of York

Date: Wednesday 13 February

Time: 13:00 – 14:00

Location: C/A/122, Department of Chemistry



Diverse scientists are ideally placed to use their unique experiences to 'imagine the impossible' and solve challenging problems. It is perhaps surprising that LGBT+ scientists are often invisible. This lecture by David K. Smith, Department of Chemistry, will explore difficulties faced by LGBT+ scientists, highlight their ongoing work, and uncover hidden stories. We will discuss cutting-edge science and the politics of identity, to show that diversity is a strength.

Organised by: University of York

Tickets: Free, but register by emailing [equality@york.ac.uk](mailto:equality@york.ac.uk)

More information: Chris Brunt (01904 324680 | [equality@york.ac.uk](mailto:equality@york.ac.uk)) | [york.ac.uk/admin/eo/index.htm](http://york.ac.uk/admin/eo/index.htm)

*Accessibility: Baby changing, Gender-neutral toilets, Wheelchair access*

**13 FEBRUARY**

**WEDNESDAY 13:00 - 14:00**

**HIDDEN STORIES OF LGBT+ SCIENTISTS**

📍 C/A/122, Chemistry Buildings, University of York, YO10 5DD

Diverse scientists are ideally placed to use their unique experiences to 'imagine the impossible' and solve challenging problems. It is perhaps surprising that LGBT+ scientists are often invisible. This lecture by David K. Smith, Department of Chemistry, will explore difficulties faced by LGBT+ scientists, highlight their ongoing work, and uncover hidden stories. We will discuss cutting-edge science and the politics of identity, to show that diversity is a strength.

**Hidden Stories of LGBT+ Scientists**

Prof. David K. Smith  
Department of Chemistry  
University of York

🌟 Organised by: University of York

🎫 Tickets: Free, but register by emailing [equality@york.ac.uk](mailto:equality@york.ac.uk)

📞 More information: Chris Brunt  
01904 324680 | [equality@york.ac.uk](mailto:equality@york.ac.uk) | [york.ac.uk/admin/eo/index.htm](http://york.ac.uk/admin/eo/index.htm)

**13 FEBRUARY** **WEDNESDAY 13:00 - 14:00**

**TRANS AND NON-BINARY HISTORY AND ACCEPTANCE**

## Seminar programme

Below you'll find the current seminar list through to the summer. The schedule includes RSC award and prize winners, other Departmental seminars, inorganic, organic and physical seminars. I'm sure you'll agree we have a great programme coming up, from a diverse group of speakers, which will be of interest across disciplinary boundaries. This is unlikely to be an exhaustive list, with ad hoc seminars organised at shorter notice.

Highlights this term include RSC award winner visits from Klaas Wynne and Nick Le Brun, the Equality & Diversity talk from Polly Arnold, and the chemical education-themed talk from Tina Overton. There are many, many more – see the table below for some of this term's seminars and look at the events page on the Departmental website for more information, as well as each edition of *Chemistry Update*.

Finally, I'd like to ask that we all make a sustained effort to attend a good proportion of the seminars. Not only is a vibrant seminar programme a great advert for the Department, with good attendance sending our visitors off with a positive impression of York, it also presents us all with a wonderful personal opportunity for learning, networking and career development.

- Derek Wann

Date	Speaker(s)
30/01/19	Helen Fielding (UCL)
30/01/19	Igor Alabugin (Florida State)
13/02/19	Kylie Vincent (Oxford)
20/02/19	Zoe Pikramenou (Birmingham)
27/02/19	Robert Phipps (Cambridge); Hon Lam (Nottingham)
06/03/19	Anthony Meijer (Sheffield)
13/03/19	Katherine Holt (UCL)
20/03/19	Tina Overton (Monash University)
03/04/19	Klaas Wynne (Glasgow)
10/04/19	Emma Richards (Cardiff)
01/05/19	Nick Le Brun (East Anglia)
03/05/19	Polly Arnold (Edinburgh)
14/05/19	Renee Cole (Iowa)
05/06/19	Alison Stuart (Leicester); Ed Anderson (Oxford)
12/06/19	Susan Perkin (Oxford)

## The Vikings are coming!

The University has invested £2.5 million in a new high-performance computing cluster. The new “Viking” cluster has the potential to be a transformative resource for the University and has been designed to meet a wide mix of research requirements.

It will be available to all researchers, including students, and will be free of charge to use. It will provide:

- 7000 Intel cores
- 8 top-of-the-range v100 GPUs
- 2.5PB of high performance storage
- High-performance Infiniband networking
- The ability to burst into public cloud services
- Interactive compute nodes



It is hoped that this facility will attract the best researchers and academics to York. It will also allow current academics to conduct their world-class research without the overhead of writing grants to secure time on other machines.

Dr Derek Wann, who represents the Department on the University’s Research Computing Working Group (RCWG), said: “This is a major investment

from the University and I’d encourage all colleagues to consider trying out Viking to see how it might help in their research. We were lucky that both Mat Evans, through University Research Committee, and myself via RCWG, were able to influence the design of the new cluster.”

IT services are hosting a launch event on Thursday 14 February from 2pm (with a drinks reception at 4.30pm) in the Berrick Saul Building.

### Speakers include:

Professor Sophia Ananiadou (University of Manchester)

Professor Carla Molteni (King’s College London)

All are welcome and registration is via the [Eventbrite page](#).

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## Online Department suggestion box



The online Equality and Diversity suggestion box has been extended to be a suggestion box for the whole Department. You can submit your thoughts/suggestions/ideas for general Departmental matters as well as matters relating to Equality and Diversity. You can find the Google form on the intranet homepage or at this [link](#).