

UNIVERSITY OF  
BIRMINGHAM

# School of Chemical Engineering Community

Part of  
THE EPS COMMUNITY



Spring 2014

## Greetings,

Another term has come to an end in the School of Chemical Engineering as our students are finishing assignments and dissertations ahead of the Easter break. Applications are still significantly up, even on last year's record – it is not clear what the final number of students will be this year, but we might break records. The jobs market is also booming – this is a good time to be a chemical engineer. If we expand much further there will need to be investment in both staff and infrastructure.

As discussed below, our research continues to build, from [chocolate](#) to [cartilage](#). We have also taken [time to remember two people](#) who helped run both the research and the teaching within the School, through the opening of the new Jennings lab in biochemical engineering and a memorial to Waldek Bujalski. Both worked within the School for many years and are greatly missed, and gratefully remembered.

I'd like to take this opportunity to remind you of your invitation to attend the first [EPS Reunion](#). Similar to that of the previous University Annual Alumni Reunion event, we are inviting all former students of the School to return to campus on Saturday 14<sup>th</sup> June to reminisce with us. It is set to be a very good day and I look forward to seeing many of you there.

With best wishes,

**Professor Peter Fryer**  
Head of School  
Chemical Engineering

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## News from the School of Chemical Engineering

### Hurry! Only 24 hours to secure your 'early bird' place at the EPS Reunion 2014!



Do you have fond memories of your time at the University of Birmingham? Do you still keep in touch with those classmates who you pulled all-night study sessions with, to get that last assignment finished? As a graduate of the School of Chemical Engineering, we'd love for you to join us on campus on Saturday 14 June 2014 for a Reunion. [Read more.](#)

### 10 ways the University of Birmingham has changed the world



Can you help us to celebrate the impact that staff, students, and alumni have had on society?

With eight Nobel Prize winners amongst former staff and students, and world-leading researchers on everything from the Big Bang to Shakespeare, Birmingham research continues to transform lives. The University needs your nominations for a new 'top ten' list of the alumni, staff, and students who have had profound impact through their research. Visit [www.birmingham.ac.uk/10ways](http://www.birmingham.ac.uk/10ways) to cast your vote by **Friday 4 April**. Winners will be announced in May.

### Molecular gastronomy gels could tackle obesity



Scientists at Birmingham have discovered a way of combining two food ingredients that when they are exposed to stomach acid will expand to form a solid gel, therefore giving the consumer the illusion of feeling full. The gel breaks down slowly; giving the brain the chance to catch on that the stomach is full, leaving the person feeling less hungry and so reducing their desire to snack or overeat. Researchers are now hoping to combine the gel with starch or sugars for a slower release into the stomach to help dieters feel fuller for longer. [Read the full article here.](#)

### How a square of chocolate really does make us smile!



March 20<sup>th</sup> marked International Day of Happiness, an apt time for it in the UK as we emerge from a wet and dreary winter. February saw Valentine's Day and World Chocolate Day, both reminding us of this feel-good substance. In the School of Chemistry we celebrated by indulging with chocolate and investigated why it makes us so happy. [Read more.](#)

### BUCES Update



The Birmingham University Chemical Engineering Society (BUCES) has had a very busy year. [Read what they've been up to.](#)

### Students praised for volunteer work



Student Volunteering Week took place in early March to highlight the valuable work student volunteers do, raise awareness about the benefits of volunteering and appeal for more students to get involved. 4<sup>th</sup> year Chemical Engineering student Dale Braganza Menezes volunteered at the Barndardo's charity shop in Worcester and was featured in the publicity for this week. [Read more.](#)

## Professor Sir Martin Sweeting delivers the inaugural EPS Distinguished Lecture



On Wednesday 5<sup>th</sup> March Professor Sir Martin Sweeting, Director of the Surrey Space Centre, delivered the first EPS Distinguished Lecture. Students Ceri Bradshaw, Rob Brennan-Craddock and Graham Kirkby summarise the event. [Read more.](#)

## Skin, bone and everything in between: Repairing the human body - Professor Liam Grover



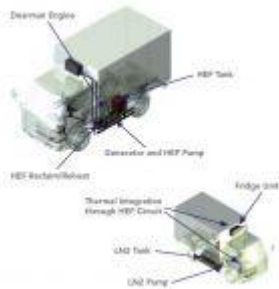
Professor Liam Grover is pioneering research into using biomaterials to repair and regenerate different parts of the body and is within touching distance of seeing patients benefit from his work. [Read more.](#)

## Hydrogen could save regional railways



There is increasing talk of electrification of the UK's railway network. But electrification is an expensive business, requiring much new hardware including masts, wiring, substations and so on. Such an investment can be justified for heavily used lines such as urban metro systems and inter-city routes, but not on less used lines such as regional routes. Railways will continue to need an energy supply system that does not rely on electrification for the foreseeable future. [Read more.](#)

## World's first liquid air engine operational on schedule



A revolutionary new zero-emission engine could save truck operators thousands of pounds in fuel costs and the environment millions of tonnes in emissions through new cool chain systems for food distribution and in motive power applications. The Dearman engine, which has been developed in the UK, runs on liquid air (liquid nitrogen) and is on track to undertake full on-vehicle testing by the summer of 2014. [Read more.](#)

## Chemical Engineering honours Hazel Jennings and Waldek Bujalski

The School of Chemical Engineering has honoured the sad passing of colleagues Hazel Jennings and Waldek Bujalski. [Read more.](#)

## National Women in Engineering Day



Monday 23 June marks the first National Women in Engineering Day launched by the Women's Engineering Society. It is intended as a day dedicated to raising the profile and celebrating the achievements of women in engineering. We are looking for women with a story to tell. Do you work in science or engineering and would like to become involved? The programme is being developed as we speak so if you would like more information or want to take part please [email us](#) or keep an eye on [our website](#).

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## New staff in 2013/14

There have been a number of appointments in the School this term. **Read a summary of our new staff** [online here](#).

## Your School needs you...

Would you be able to share some of your time, expertise or connections to help our students to succeed?

We're currently looking for help and support from alumni with the following:

- EPS Open Days, 26-27 June. Could you donate a couple of hours of your time to pop back to your old school and speak to our prospective students about your time at Birmingham? For more information and to get involved [email us](#)
- All women in science and engineering. As part of National Women in Engineering Day, 23 June, the EPS Community is hosting a number of activities, conversations and events designed to celebrate women in engineering and scientific careers. If you work in science or engineering and would like to sit on our panel, get involved in the conversation on twitter, or come along to our evening event, please get in touch by [emailing us](#)

There are many ways in which you can give a little back, from providing a career profile, to mentoring a student. **Details can be found [online](#) and [email us](#) if you would like to get involved.**

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## Events taking place shortly...

### College events

#### EPS Inaugural Lecture Series

[Professor James Tucker – “Going beyond the Molecule: The Chemistry of Connections”](#)  
10/04/2014, 5:15-7:30pm

Lecture Theatre 203, Haworth Building (Y2), University of Birmingham

The lecture will describe and focus on an area of science called supramolecular chemistry, which is often described as "chemistry beyond the molecule". Supramolecular chemistry goes beyond traditional molecular chemistry, which largely focuses on how individual molecules are made, to focus on what a molecule can do once it is made. In particular it concerns how molecules interact with one another and how an understanding of these so-called intermolecular interactions can lead to ordered assemblies, controllable functionality and the mimicry of biological systems.

**For more information on other lectures in the EPS Inaugural Lecture Series please visit [www.birmingham.ac.uk/eps/inaugural](http://www.birmingham.ac.uk/eps/inaugural)**

#### British Science Festival Event

**Details to be confirmed**

Keep a look-out here as for more information on how we'll be celebrating the British Science Festival at the university. More information to follow soon!

#### National Women in Engineering Day

23/06/2014

**Details to be confirmed**

On 23<sup>rd</sup> June the EPS Community will be celebrating the achievements of women in the field of engineering as part of the first National Women in Engineering Day (NWED). Keep a look-out here as for more information on our plans for the day!

#### EPS reunion

14/06/2014

**College of Engineering & Physical Sciences, Edgbaston Campus**

As a graduate of one of the nine schools in the [College of Engineering & Physical Sciences](#) (EPS), you are invited back to

campus on 14 June 2014 for a Summer Reunion to get together with your fellow alumni to celebrate your experiences, accomplishments and friendships at the University of Birmingham.

To book your place, please follow the online registration link below or download the appropriate booking form and return by post, fax or email. <http://bhamalumni.org/eventregistration>

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## **University events**

### **Hong Kong Alumni Gathering**

**02/04/2014, 7-9pm**

Shore 3rd Floor, The L Place, 137-141 Queens's Road, Central Hong Kong

### **Melbourne Alumni Gathering**

**10/04/2014, 6:30-9pm**

Seasons Botanic Gardens Hotel, Orient East Bar and Restaurant, 348 St Kilda Road, Melbourne VIC 3004

### **Fab 'n' Refresh**

**26/04/2014, 10pm**

Joe's Bar, Guild of Students, University of Birmingham

### **Sydney Alumni Gathering**

**29/04/2014, 7-9pm**

The Zeta Br, Level 4, 488 George Street, Hilton, Sydney, Australia

### **Brisbane Alumni Gathering**

Pig 'N' Whistle Riverside, 123 Eagle Street, Brisbane, Australia

### **Alumni Sports Day**

**14/06/2014, 9am-5pm**

University of Birmingham

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**Do we have the right details for you?**

please visit [your.bham](http://your.bham) or email [alumnioffice@contacts.bham.ac.uk](mailto:alumnioffice@contacts.bham.ac.uk).

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