

festive fare

Imperial staff share
tips for celebrating
the season

◆ CENTRE PAGES



EXPLOSIVE SCIENCE

Blast injuries
studied at new
£8 million
research centre

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SAFE CAMPUS

Meet Imperial's
policeman,
Acting Sergeant
Nigel Lewis

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INSIDE WESTMINSTER

Dr Kath O'Reilly
on shadowing
an MP

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EDITOR'S CORNER

Thank you!

Reporter's pages would be blank without the stories of staff and students and **it continues to amaze me** how willing you are to give up your time for interviews and to pose for photos. Pulling together the final issue of the year has been no different. Over the past few weeks I've sought out staff to **glean festive tips** – a task which included a visit to the Sherfield Building kitchens to meet our cover star, Sous Chef Steve Robertson, where he **gamely whipped up a batch of mince pies** while his team prepared for the lunchtime rush (see pages 8-9 for the feature). I also met **Acting Sergeant Nigel Lewis** who allowed *Reporter's* J-P Jones to shadow him for the day and gain insight into the work he does protecting staff and students on campus (see page 10). Thanks to everyone who helped make this issue and also to everyone who has sent in, suggested or written stories for *Reporter* this year. **Have a relaxing break** and please keep your contributions coming in during 2012.

EMILY ROSS-JOANNOU, EDITOR

Reporter is published every three weeks during term time in print and online. The next publication day is 23 January 2012.

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Research centre to combat effects of roadside bombs

Gaining a better understanding of the injuries caused by roadside bombs, and improving both treatment and the means of protection, are key aims of a new £8 million research centre at Imperial launched on 7 December.

Designing 'intelligent' combat boots to deflect the impact of a roadside bomb and diagnosing damage more quickly in the injured, to reduce future medical problems, are two potential benefits.

The Royal British Legion Centre

for Blast Injury Studies at Imperial is the first collaboration of its kind in the UK, where civilian engineers and scientists will work alongside military doctors, supported by charitable funding, to reduce the effects of roadside bombs or improvised explosive devices, which are the leading cause of death and injury for service personnel on operations in Afghanistan and Iraq.

Professor Anthony Bull (Bioengineering), Director of the new Centre, said: "Previously, servicemen and women who were



wounded from blasts would have died from their injuries. Now, military protection, medical science and practice has improved greatly, so that there is a greater prospect of survival. We now need to assess the effects of blasts on these survivors. We urgently need to know more, so that we can protect and treat people more effectively."

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT

Broadening horizons for staff and students

Staff from across the College took time out last month to take part in a day focused on the educational experience offered at Imperial.



Education Day, organised with the support of the Educational Development Unit and the Strategic Education Committee, was held on 30 November. It examined the wider role of teaching and education in preparing students for life after university, particularly the broader skills needed for future career success.

To support the theme, the day included perspectives from far more external participants than ever before. Among the 200 people who attended were teachers, alumni and colleagues from other universities. The speakers, meanwhile, included repre-

sentatives from international companies which recruit Imperial students, including Nomura International Plc and Shell UK, as well as head teachers and Dr Evan Harris, Vice-Chair of the Liberal Democrat Federal Policy Committee.

Discussion topics ranged from what employers are looking for in graduates to how universities can better support raising the aspirations of prospective students from disadvantaged backgrounds.

Professor Julia Buckingham, Pro Rector (Education and Academic Affairs), said: "Ensuring our students have the combination of the academic and broader skills necessary for future career success involves listening very carefully to them and a wide cross-section of others, particularly future employers."

"I'm delighted that Education Day gave us the opportunity to bring together many of the people who can offer an insight into the student experience today and an understanding of where students are coming from and the environment they are heading to."

— JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

Imperial College London

New year, new you

Planning to get into the Olympic spirit by putting fitness first in

2012? *Ethos* is giving staff a helping hand to keep their New Year's resolutions. Sign up to a gym membership in January for a minimum of six months and get the seventh month free.



Join Club Imperial by visiting:
www.imperial.ac.uk/sports/facilities/ethos/clubimperial

New chapter for Bangalore alumni

The Rector Sir Keith O’Nions launched a new chapter of the Imperial College Alumni Association of India in Bangalore during his recent visit to the country incorporating stops in four cities in five days.

A reception hosted by the Rector on 2 December marked the establishment of the new Imperial alumni network in Bangalore. Alumnus Vibin Joseph, who graduated from the Business School in 2008, is the new Chair of the Bangalore chapter. Speaking at the event, he said: “The Bangalore alumni who I’ve met tonight are extremely keen about the new chapter; it will provide a great opportunity for the younger alumni to look up to the older generations for guidance and advice – this club could become an inspiration for the next community of Imperial students who are applying and will hopefully become part of this community.”

Sir Keith O’Nions hosted other alumni receptions in Mumbai, Kolkata and New Delhi



Left to right: The Rector with Imperial alumni Vibin Joseph and Gopal Dash at the Taj West End in Bangalore.

over the course of his trip at the end of November and into early December. Alongside he met with representatives from government, industry, the Indian media and higher education institutions, including the Indian Institute Delhi (IIT Delhi), which has been associated with the College since it was founded fifty years ago.

During his visit the Rector also discussed plans for a new scheme to support Imperial PhD scholarships, through which funds raised by

Indian alumni will be matched by the College to cover tuition fees and maintenance costs for talented Indian students. Fundraising efforts in India will be championed

by the Imperial College India Foundation. The Foundation counts among its board members alumnus Cyrus Mistry (Civil Engineering 1990)

who made headlines worldwide recently upon his appointment as chairman of the Tata Group, one of the world’s largest conglomerate companies.

—JOHN-PAUL JONES AND ELIZABETH ATKIN, COMMUNICATIONS AND DEVELOPMENT

“This club could become an inspiration for the next community of Imperial students”

Plans announced for Academic Health Science Partnership



Imperial and healthcare providers in north west London announced plans on 25 November to form a new Academic Health Science Partnership (AHSP) to improve the health and care of the local population of 1.9 million people.

Over the summer the Rector, Lord Tugendhat (Chairman, Imperial College

Healthcare NHS Trust) and Ruth Carnell (Chief Executive, London Strategic Health Authority) asked Professor the Lord Darzi (Paul Hamlyn Chair of Surgery at Imperial) to chair a new Academic Health Science Centre (AHSC) Steering Board. Part of that Board’s remit was to lead a consultation on the opportunities to develop and grow teaching, research and healthcare links for the benefit of a network of healthcare providers in north west London.

Eleven providers of primary, secondary, tertiary, and community and mental healthcare have now agreed to work with the College to develop the first model of its kind in north west London aimed at bringing innovations to healthcare.

Commenting on the benefits of the AHSP for the College, the Rector said: “It will build on our approach to population-based research; will facilitate the conduct of clinical trials at scale; and, in collaboration with the other partners, will allow us to apply our research to bring about innovations in the provision of healthcare.”

Over the coming months, a Transitional Partnership Board to be chaired by Lord Darzi will develop plans for the AHSP, which is intended to launch as a company limited by guarantee in April 2012.

Lord Darzi said: “The partners involved in developing the AHSP face many common challenges but have one unifying goal: to bring the highest quality care to the people of north west London.”

The AHSC will continue to integrate healthcare services with teaching and research between the College and Imperial College Healthcare NHS Trust, and will be complementary to the AHSP.

—CAROLINE DAVIS, COMMUNICATIONS AND DEVELOPMENT

Read more about Lord Darzi’s vision in his report, *Launching an Academic Health Sciences Partnership in North West London*: <http://bit.ly/AHSPvision>

in brief

London 2012 Inspire mark

Imperial has been granted the London 2012 ‘Inspire’ mark which recognises innovative projects inspired by the 2012 Olympic and Paralympic Games. The mark will be used to market Olympic-related activities which the College has been organising and to promote future ‘Sanka Days’, events at Imperial offering children from local schools a taste of Japanese culture, for example by trying Japanese dancing. Lord Coe, Chair of the London Organising Committee of the Olympic and Paralympic Games, said: “I congratulate everyone involved in Sanka Days for securing the Inspire mark and wish you every success with your work.” Sanka is Japanese for participation.



New Trust chairman announced

Sir Richard Sykes, former Rector of Imperial, will become the new Chairman of Imperial College Healthcare NHS Trust on 1 January 2012, succeeding Lord Tugendhat. As Rector, Sir Richard was a driving force behind the creation of the Academic Health Science Centre and a non-executive director of the Trust. He said: “The pace of change in the treatment and management of disease makes it a very exciting time to be working in the NHS.”

Biochemistry building rename

Sir Ernst Chain Building – Wolfson Laboratories will be the new name for the Wolfson Building on the South Kensington Campus. The change recognises contributions made by the leading biochemist Sir Ernst Chain, who founded the Department of Biochemistry in 1964, now part of the Department of Life Sciences. Chain received the 1945 Nobel Prize for Physiology or Medicine for the discovery of penicillin, together with Howard Walter Florey and Sir Alexander Fleming. Members of Chain’s family celebrated the renaming at a distinguished lecture by Professor Jim Barber (Life Sciences) last month.

Financial Times Business School rankings

Imperial College Business School showed continued success in the Financial Times’s European Business School ranking 2011 published on 5 December. A rise of four places from 18 to 14 also meant that the School ranked third in the UK. Principal Professor David Begg welcomed the news: “We have steadily improved our position in the programme rankings that have been published throughout the year, and I’m pleased to see this reflected in the overall picture.”



Industry leaders and academics debate how to reduce the UK's carbon output

The Secretary of State for Energy and Climate Change, Chris Huhne MP (pictured above centre with Brian Hoskins left and Rector right) outlined the government's plans to cut carbon usage at a conference hosted by the Grantham Institute for Climate Change and the Business School on 24 November.

Mr Huhne was joined at the *Changing Gear on Carbon Reduction* conference by scientific experts and leaders from UK industry, business, manufacturing and technology. They examined how best to achieve a major reduction in carbon output without damaging productivity and global economic growth.

Official recommendations expect the UK to almost triple its annual cut in carbon footprint in order to meet its 2050 target of reducing emissions by 80 per cent as compared to 1990. This would require a national reduction of 4.3 per cent per annum in the first half of the 2020s, in comparison with 1.5 per cent needed between 2009 and 2020.

The carbon cuts were proposed by the Committee on Climate Change in its Fourth Carbon Budget, and broadly accepted by government earlier this year. The Department for Energy and Climate Change has since presented its response in the document *The carbon plan: Delivering our low carbon future* published on 1 December which sets out in detail how it expects the UK to turn these recommendations into actions.

"Halving our emissions to hit the Fourth Carbon Budget will mean changing the very fabric of our economy," said Mr Huhne at the November conference. "If the government sticks to its plan ... the UK is poised for two decades of aggressive decarbonisation in the power sector. In transport, heating, and industry, in generation and efficiency, we must renegotiate the terms of our relationship with energy. If we succeed, our climate will be safer, and our economy more competitive."

He also praised the work of scientists and engineers at Imperial who, he said, play a vital role in developing the scientific understanding that should dictate environmental policy for the UK and on the international scene.

The discussion took place just a few days ahead of the United Nations Climate Change Conference 2011 in Durban, where governments debated environmental and economic topics on the international scale.

—SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT

Read an interview with Neil Hirst, Senior Policy Fellow at the Grantham Institute at: <http://bit.ly/Neilhurstinterview>

Website highlights how stress in the womb can program future health

Researchers and students at the Institute of Reproductive and Developmental Biology in the Faculty of Medicine have built a website to highlight the importance of healthy pregnancy for a child's future wellbeing.

The site, called *Begin Before Birth*, aims to inform students, mothers and health workers about the factors that can affect the developing fetus.

Vivette Glover, Professor of Perinatal Psychobiology (Surgery and Cancer), wrote the content of the website with her students. The website draws heavily on her group's research on stress during pregnancy.

"At the moment, most stress, anxiety and depression in pregnancy is undetected and untreated," she said.

"The physical healthcare of pregnant women in the last 100 years has improved enormously, but emotional care is almost totally neglected. We want to change the climate on this, and to do that we need to raise awareness."

Professor Glover had the idea for the website after taking part in the Royal Society's Summer Science Exhibition.

"We really enjoyed communicating



with the public and there seemed a lot of interest in it, so we wanted to take it further," she said.

The team received funding

from the Wellcome Trust to produce the site. It was designed by Karsten Seipp, Senior Digital Designer/Developer (Communications and Development),

and features three videos, produced by Windfall Films.

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT

Visit the website at:

www.beginbeforebirth.org

"At the moment, most stress, anxiety and depression in pregnancy is undetected and untreated"

Visiting the Crick



On 18 November, a group from the Faculty of Medicine Centre took a trip to the site where the Francis Crick Institute is going to be built next to King's Cross St Pancras station. When it opens in 2015, the Crick will be a biomedical research institute combining knowledge, expertise and resources from Imperial, Cancer Research UK, the Wellcome Trust, UCL and King's College London.

Initiative rated as one of top two charities for impact

The Schistosomiasis Control Initiative (SCI) at Imperial has been rated as one of the top two charities globally for achieving impact with donations by an independent charity evaluator. The American-based non-profit organisation GiveWell rigorously examined hundreds of charities worldwide to identify which have the most impact for each dollar they receive. The Against Malaria Foundation and the SCI were found to be the two charities that allow donors to accomplish as much good as possible with their money.

The evaluations are based on extensive research into each charity, including conversations with representatives, site visits to charities' work in the field, and examination of internal documentation and evidence of effectiveness.

"It represents true value for money donated, and is open and transparent in its accountability"

The SCI was set up at Imperial in 2002 to deliver treatments for schistosomiasis and other neglected tropical diseases (NTDs) to people in sub-Saharan Africa, who are at high risk of serious disease. NTDs cause severe pain and lifelong disability, but receive little attention because they kill fewer people than AIDS and malaria. Around 500 million people in Africa have two or more NTDs and need regular treatment.

The SCI's Director, Professor Alan Fenwick, said: "SCI has been recognised by two organisations evaluating charities because it represents true value for money donated, and is open and transparent in its accountability. From the technical side, it is focused on the diseases of the poorest populations and improves the quality of life, particularly of children, by



offering cost-effective treatment in partnership with pharmaceutical companies, the World Health Organisation and, most importantly, the governments of the African nations. If donations increase as a result of these endorsements, we would hope to increase our coverage of treatments in the countries we work in and also assist more countries in Africa."

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT

Rio Tinto supports student learning initiative

Engineering students are being challenged to design and build new types of sporting equipment for people with disabilities in the lead up to the London 2012 Paralympics in an initiative funded by Rio Tinto, launched on 8 December at Imperial.

The five-year Rio Tinto Sports Innovation Challenge aims to harness the creativity of Imperial's students in order to make sports activities more accessible to people with disabilities, and to improve the sporting and training equipment available to them.

The Challenge will form part of the curriculum and will involve students from across the Faculty of Engineering. The students will develop prototype technologies, manage



Paralympian Jimmy Goddard talks to Imperial students about the techniques and technology he uses to compete in triathlons.

their design projects and have the opportunity to enter a *Dragon's Den*-style competition, where their inventions will be judged by a panel of experts.

At the official launch of the Challenge, leading British Paralympic athletes, including javelin thrower Scott Moorhouse, wheelchair racer Dan Lucker, and para-triathlete Jimmy Goddard, came to Imperial to speak to 120 students taking part.

Imperial's lead

organiser of the Challenge, Professor Anthony Bull (Bioengineering), said: "Apart from being a great way to learn about engineering, we believe that by harnessing the talents of Imperial students, they will be able to come up with innovative ways to improve the sporting performance of Paralympians and enhance the quality of life for those with disabilities."

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT

Imperial Olympian collects early award

Last month, Adam Scholefield, a PhD student in the Department of Electrical and Electronic Engineering and the current Vice-Captain of the British Olympic water polo team, was presented with a £3,000 award by his Department to help support him as he prepares for the 2012 games.

Staff and students attended the presentation of the award at a ceremony on 25 November. The award was given to recognise Adam's success in managing both his studies and his sporting life across his time at Imperial, and in support of his Olympic endeavour.

Speaking at the event, Professor Peter Cheung, Head of the Department, said: "This is a very special achievement. We celebrate not only Adam's athletic success, but also his strong commitment to his studies. This combination is an inspiration to the whole Department."

Adam, who first took up water polo at the age of 10, joined the Department as an undergraduate. He recalls staff going to considerable trouble to ensure he could sit an exam around a sporting commitment during his undergraduate studies, as well as being supportive throughout his first degree. Adam said: "The Department has been amazing all the way through and this award, in particular, is such a surprising but lovely gesture."

— JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT



media mentions

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT



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THE SUNDAY TIMES ▶ 20.11.2011

Engineering prize announced



The foremost engineering achievements in the world will be rewarded with a prize

as prestigious as the Nobel, *The Sunday Times* reported. The Queen Elizabeth Prize, worth £1 million and administered by the Royal Academy of Engineering and the Royal Society, will be awarded every two years. Professor Jeff Magee, Principal of Imperial's Faculty of Engineering, welcomed the announcement, which was made by the Prime Minister, saying the prize would raise the profile of engineering in Britain. "Banking is not the only thing we do in the UK," he said. "We have a long history of expertise in engineering and this prize will help to celebrate that." The first prize will be awarded in December 2012.

THE DAILY TELEGRAPH ▶

24.11.2011

Fresh air for asthma sufferers

Asthma sufferers could benefit from a machine that filters dust particles and other irritants from the air while they sleep, *The Daily Telegraph* reported. A study at Imperial found that patients who used the £4,000 machine experienced an improvement in symptoms such as wheezing and tight chests during the day, compared with those given a dummy machine. "This device makes a significant difference to people's lives, with an effect as big as very expensive treatments, and it helps prevent the triggers of the disease," said Professor John Warner (Medicine), who led the study.

THE TIMES ▶ 29.11.2011

Report highlights medical mishaps



Patient safety is probably improving, but there are still far too many

avoidable instances of harm to patients, *The Times* reported. New data on patient safety was published in the annual hospital guide by the Dr Foster Unit at Imperial. The authors warned that the data probably understate the number of adverse events because of inconsistency in the way hospitals record incidents. "We still do not know if patients are safer in 2011 than in 2001," said Professor Charles Vincent (Surgery and Cancer). "This suggests that much more attention needs to be paid to measurement and evaluation in the next 10 years than has been the case in the past."

DAILY MAIL ▶ 29.11.2011

Scorchio!

2011 is set to be the 10th warmest year on record, despite weather patterns that lower global temperatures, the *Daily Mail* reported. This year's strong La Niña system acted to cool the average temperature, but figures from the World Meteorological Organisation still put 2011 among the hottest years since records began in 1850.

Professor Brian Hoskins (Grantham Institute) said evidence that global warming is accelerating is growing. "What we've seen in the science is not one huge change but a number of things – the melting of the ice sheets, the permafrosts and release of methane and the carbon cycle – have tended towards this problem being more serious rather than less."



awards and honours

MEDICINE

Higham named Mentor of the Year



Professor Jenny Higham, Deputy Principal and Director of Education in the Faculty of Medicine, was

named Mentor of the Year in the 2011 Women of the Future Awards held at in London on 16 November. The award recognises active mentors who support younger women, offering coaching and

advice which enables them to develop and flourish in their chosen careers. Several members of the Imperial community were recognised in other categories. Nominated for the MBA Star Award were Business School students Alice Rackley and Gloria Ruto, while Monique Ho, a final year biochemistry student, was nominated for the Young Star of the Year Award. To read an interview with Jenny, see page 15.

MEDICINE

Anaesthetic Research Society annual meeting awards

Fifth year medical students Mervyn Chong, Anthony Fung and Bob Yang, who undertook intercalated BSc projects under the supervision



The students with Dr Daqing Ma at the Academic Anaesthetics Department at Chelsea and Westminster Hospital, from left to right: Bob Yang, Dr Ma, Mervyn Chong, Anthony Fung.

of Dr Daqing Ma, Senior Lecturer (Surgery and Cancer), presented their data at the annual meeting of the Anaesthetic Research Society held at the Royal College of Anaesthetists (RCoA) on 28 November 2011. Mervyn was awarded first place in the RCoA President's Prize for best undergraduate research project, while Anthony and Bob were both awarded second place.

ENGINEERING

American Ceramic Society Fellow

Professor Neil Alford, Head of the Department of Materials and Deputy Principal of the Faculty of Engineering, has become



a Fellow of the American Ceramic Society. Fellows are selected for their outstanding contributions to the ceramic arts or sciences. Founded in 1898, the American Ceramic Society is the professional membership organisation for international ceramics and materials scientists, engineers, researchers, manufacturers, plant personnel, educators and students.

Fleming's fungus still surprising scientists

The fungus that fell onto Alexander Fleming's culture plate in 1928, leading to the discovery of penicillin, has been wrongly identified for more than 80 years, according to an Imperial study published in the journal *Molecular Ecology* in November.



Alexander Fleming in his laboratory

The mould that contaminated Fleming's bacterial culture in his messy laboratory at St Mary's was later ascribed to the species *Penicillium chrysogenum*. Now scientists at Imperial have subjected preserved specimens of Fleming's fungus to modern genetic analysis, and discovered that it's actually a closely related species which has yet to be named.

The scientists asked volunteers around the world to collect fungal spores from the air by leaving out pieces of sticky tape overnight. They compared genetic data from Fleming's fungus with the samples to see what modern science would reveal about the natural history of the celebrated mould.

They found that there may be four different species lurking under the label of *P. chrysogenum*, at least two of which are found all over the world. Furthermore, they found evidence that the fungus was reproducing sexually, even though this has never been observed in the lab.

"Our study highlights the amazing biodiversity of these airborne fungi," Dr Daniel Henk (Public Health) said. "Fleming, and everyone else since, really had no idea what they were dealing with. With the genetic techniques we've brought to bear, we suddenly can see all these biological differences because we can put the isolates in the right groups. Some may ultimately lead to new useful compounds."

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT

“Our study highlights the amazing biodiversity of these airborne fungi”

Wolves help predict climate effects

Scientists studying populations of grey wolves in the USA's Yellowstone National Park have developed a way to predict how changes in the environment will impact on the animals' number, body size and genetics, amongst other biological traits. The research was published in the journal *Science* in early December, and was led by Imperial researchers.



The study identifies a way to predict the extent to which climate change could simultaneously affect animal numbers and the ways in which animals are likely to evolve.

It provides a powerful mathematical model to explore the links between environmental change, changes in population size and simultaneous recent rapid physical changes, such as the shrinkage that has been seen in animals like polar bears and Soay sheep.

Previous studies have shown that, if they persist over a long period, even small changes in traits like body size and weight – as well as other characteristics such as coat colour, age at reproduction and average life span – can have a profound effect on a species' future population size.

But up until now, scientists have not had the tools to predict what these effects would be. The results could now be used by other groups to predict how future wolf populations will respond to climate change and to inform the actions of conservationists.

Professor Tim Coulson (Life Sciences) says, "This work provides a relatively easy way for biologists to investigate how, and why, environmental change impacts both the ecology and near-term evolutionary future of species."

—SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT

Physicists measure cosmic particle accelerator

Imperial physicists studying cosmic particles ejected from the sun have measured a region of space around the Earth where these particles are dramatically slowed, and where cosmic particle acceleration is then thought to be initiated. They have discovered that this region, known as the 'bow shock layer', is only 17 kilometres thick, much smaller than previous estimates.

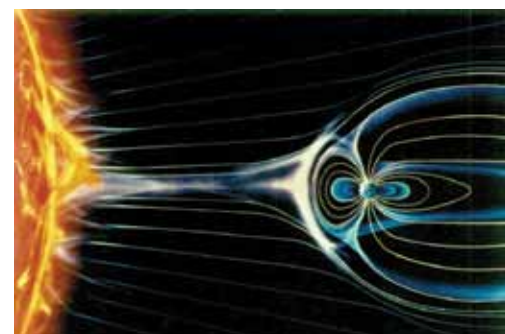
This discovery was made by scientists at Imperial and the Laboratoire de Physique et Chimie de l'Environnement et de l'Espace in France using the European Space Agency's four Cluster spacecraft. Cluster orbited the Earth at altitudes up to 120,000 kilometres, from where they took rapid measurements within the bow shock layer.

Giant magnetic field lines guide cosmic particles through space at one thousandth of

the speed of light. A shock wave forms where they encounter another strong magnetic field, such as the one around our planet (pictured right), as well as around exploding stars, black holes and galaxies, where space scientists are unable to measure them. By studying these shock waves, scientists hope to understand the origin of high-energy cosmic rays that fill the Universe.

“Ultra-thin shocks like this are best able to kick-start the acceleration of cosmic particles”

between 17 and 1,000 kilometres thick, so we were surprised to find it at the very lowest end of this range," said Professor Steve Schwartz (Physics), who led the study.



"Big accelerators, such as at CERN, require the initial boost of a pre-accelerator machine before they can send particles to the highest energies. Likewise, it seems ultra-thin shocks like this are best able to kick-start the acceleration of cosmic particles to speeds that approach light speed."

—SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT



Celebrate the festive season **Imperial style!**

As term draws to a close, staff are looking forward to a week away from campus, celebrating in their festive finest and spending time with friends and family. To help you kick off the season in seamless style, *Reporter* shares top tips on how to prepare, with the aid of experts from around the College.

HOW TO CHOOSE THE PERFECT TREE

Today more and more people are embracing the tradition of buying a Christmas tree that they can plant in the garden once the festive season is over. Head Gardener Fraser Mallinson has been working at the College for over four years tending to all things green on the South Kensington Campus. He offers some tips on how to choose and maintain the perfect Christmas tree:

1. Measure the space for the tree before you go shopping and consider a smaller tree this year so the same tree can be used again next year.
2. Source your tree from a local grower and buy as fresh a tree as possible. The needles should look shiny, green, and fresh – not dry or brown. They should not fall off when you pull on a branch.
3. Only water the tree every few days when it is inside. Do not over water.
4. Keep the tree away from hot radiators.
5. Before planting the tree, place it in the garage or next to a sheltered area outside, to acclimatise the tree to the outdoors.



HOW TO GET IN THE FESTIVE MOOD

Director of Library Services Debby Shorley is a big fan of escaping into books when the days grow colder and shorter. Debby shares some of her favourite books, all of which can be found in the Central Library, to help get you in the mood for the festive season:

Christmas stories, Charles Dickens

Dickens is really good at evoking the excitement and bustle of Christmas in Victorian London as well as commenting on the excess and commercial side of the holidays. Dickens' writing is so rich, much like Christmas cake. You can only digest so much at a time, which is why this book of short Christmas stories is in the perfect format.

Skipping Christmas, John Grisham

Imagine a year without Christmas. No crowded malls, no corny office parties, no fruitcakes, no unwanted presents. With their only child off in Peru, Luther and Nora Krank decide that just this once, they'll skip the holidays and go on a Caribbean cruise. Best known for legal thrillers, in this novel, Grisham tells the hilarious tale of the Kranks fending off all attempts to engage with festive activities in the run up to Christmas and the chaos which faces them at every turn. This is pure escapism and a perfect read for commuting.

Christmas at the Royal Institution, an anthology of lectures edited by Frank A.J.L. James

For many scientists, the Christmas lectures delivered each December in the world famous Faraday Lecture Theatre at The Royal Institution of Great Britain are a highlight of the festive calendar. The tradition, which started in the mid 1820s, sees prominent scientists giving lectures to an audience of children. This anthology contains 11 transcribed science lectures from the last 140 years including one given by nineteenth-century physicist Michael Faraday.



HOW TO GET A FESTIVE LAUGH

The *Reporter* team scoured the internet for some of the best / worst science-themed cracker jokes to entertain your friends or family. Enjoy!



Q: What do you get when you cross vegetables with a necklace?

A: A food chain.



Q: What kind of ghosts haunt chemistry labs?

A: Methylated spirits.



HOW TO COOK THE TASTIEST MINCE PIES

Steve Robertson, Senior Sous Chef (Commercial Services), has been working at the College for 12 years and says the secret to a perfect mince pie is getting the filling right. He shares his recipe below:

100g raisins
100g sultanas
100g currants
50g glace cherries
1 tsp ground ginger
1 tsp ground nutmeg
1 tsp ground cinnamon
50g vegetable suet
1 Bramley apple (peeled, cored and chopped)
1 lemon (deseeded and cut into pieces)
1 orange (deseeded and cut into pieces)
50ml brandy
50ml sherry
Milk to glaze the pastry

1. Mix all the dried fruits with the spices and suet.
2. Purée the apple, orange and lemon pieces in a food processor and add this mixture to the dried fruit, along with the brandy and sherry.
3. Mix well, cover and set aside for anywhere between two and 24 hours.
4. Next make the mince pie pastry (see *Reporter online* for the full recipe).
5. Thinly roll out the pastry. Cut out 12 circles with a pastry cutter, press gently into each hole of a greased baking tin, then fill with mincemeat.
6. Cut out 12 smaller discs and use to cover the mincemeat. Press the edges together to seal. Make a small slit in the top of each, then brush lightly with milk. Chill for 30 minutes. Preheat the oven to 200 °C.
7. Bake the pies for 20 minutes until golden brown.
8. Serve the mince pies warm with a dusting of ground cinnamon and fresh double cream.

Reporter asked staff to share their festive recipes. From Polish apple pie to Antipodean anzac biscuits, discover Imperial's favourites at: <http://bit.ly/festiverecipes>

HOW TO KEEP THE KIDS ENTERTAINED

The winter break is an exciting time for children with the buzz of family gatherings, piles of presents and food, but it can be hard to keep the kids occupied. Soraya Nieto, who has been working at the Early Years Education Centre for nine years, recommends some creative activities using household items:

1. **Homemade wrapping paper:** you'll need a large piece of white paper, potato stamps, which you can make beforehand by cutting the potatoes lengthways and shaping them using a biscuit cutter and a knife, and a couple of containers with water-soluble paint in them. Demonstrate how to stamp by dipping the potato halves into the paint and printing. Once the paint has dried the children can help you wrap up presents.

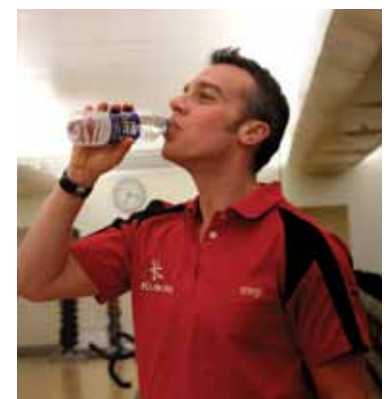
2. **Homemade decorations:** get some blank CDs, a container of glue and an assortment of materials to decorate the CD with such as cotton wool, glitter and strips of paper. Next, thread a piece of ribbon through the middle and hang on display.



HOW TO THROW A MEMORABLE PARTY

Party organisers can be pulled in many different directions as they attempt to offer guests an unforgettable feast and a sparkling atmosphere. Charles Gallagher, Head of Commercial Business and Student Support, is involved in creating thousands of events for Imperial staff, students and commercial customers every year. He says anyone can pull off a successful bash by following a few simple tips:

1. People always remember the food and drink, so if you have a tight budget this is where the bulk of the money should go. Finger food is normally best for parties as it's sociable and doesn't require too much preparation on the night.
2. Remember to strike a good balance of food and drink – if there is too much wine and too little food sometimes the party can end sooner rather than later for some. As a rule it's always better to slightly over cater than to run out.
3. While it's nice to make the party area look festive, don't go overboard. Choose a couple of colours like gold and black and use to theme the party with coloured napkins and tablecloths.
4. Music is really important as it helps to set the atmosphere. Whatever style or genre you like, it's good to start with slower music and then build up the pace as the party develops – you don't want the music (and people) to peak too soon.
5. Relax and enjoy it!



HOW TO GET RID OF A POST-PARTY HANGOVER

During the party season even the most strong-willed of us can indulge in a tipples too many – only to regret it the next morning when the headache kicks in. James Blackley, Assistant Manager at *Ethos*, shares some advice on how a little exercise can help you to get over your festive hangover:

"A workout helps speed up the body's natural process of flushing out the alcohol from your system. Doing exercise encourages you to take in fluids and staying hydrated helps the body to counter the dehydrating effects of alcohol. Water will also help satiate your appetite, as thirst is often mistaken for hunger. In terms of which exercise to choose, I'd recommend getting outside as the cold air will have a refreshing influence on the body and should help to clear your head. If you're in the gym, then choose multiple muscle movements like rowing for maximum effect."

To read more of Sport Imperial's tips for a healthy festive period visit Reporter online.



Q: What did the biologist wear on his first date?

A: Designer genes.



Q: What do you call angry bacteria?

A: Cross cultures.



Q: If an athlete gets athlete's foot, what does an astronaut get?

A: Missile toe.



The College beat

Chasing police impersonators, advising on bike safety and supporting diversity initiatives on campus are all part of a day's work for Imperial's own policeman. Based here since June this year, Acting Sergeant Nigel Lewis works throughout a large area of Westminster but has special responsibility for Imperial. He told *Reporter* about a typical day walking the College beat.

"I first open my eyes at the unearthly hour of 05.00 – I work on a number of different shift patterns but today I'm going to be doing 07.00 until 17.00. I don't have any trouble motivating myself to get out of bed though – I love what I do, every day is so different and you never know what's going to happen.

After a briefing at Belgravia police station, I arrive at the College at 08.00. The Security team tell me about an incident that happened yesterday, when a student's mobile was taken from a table while he was distracted, talking to friends. I get a copy of the CCTV footage and the details of the student.

I then go to chat to some of the cyclists locking up their bikes in the bike cage. I want to make sure that they have lights on

their bikes and strong cycle locks. On the whole, people are grateful for the friendly reminders – they know my concern is for their well-being and their property. There are always a few people who don't like to hear these things so early in the morning. I don't mind them grumbling about the 'bossy policeman' though – it means on some level they'll have taken on board what I said and that's what counts.

I leave the bike cage on receiving a call from Terry Branch, Imperial's Head of Security. We've been aware of two people posing as police officers and searching students recently, taking cash from the students' bags during the bogus search. Terry tells me that

“[Staff] can call on me as their personal copper, a friendly face who understands the College and how it works”

someone has just spotted two people acting suspiciously by the College's entrance on Queen's Gate. I jump on my bike and dash over, together with Imperial security. There's no sign of the suspects when I arrive, so I cycle around the neighbouring streets for a while. I don't find them this time – but I'm pleased to hear that a member of staff had raised the alarm after reading an interview with me in the student newspaper, *Felix*, where I discussed the case.

It's 11.00 and I'm running late for my first meeting. I head back to 170 Queen's Gate, where I'm meeting new staff as part of their induction to Imperial. I tell them about the local crime statistics and a few things they should be mindful of, such as ensuring people don't tailgate them into buildings. I really enjoy events like these because they're an opportunity for new staff to come to know my face. I want as many staff and students as possible to realise that they can call on me as their personal copper, a friendly face who understands the College and how it works.

Over lunch time and early afternoon I'm on patrol. I use the opportunity to meet up with the student whose mobile was taken, to pass on my contact details and explain that we're on the case. I also walk around campus and introduce myself to people to ensure they get used to seeing me. I love seeing campus life unfold around me. I didn't go away to university, so I really enjoy exploring and finding out what goes on here at Imperial.

After the patrol I head to my afternoon meeting with staff and students involved in 'Unseen Imperial', an initiative which celebrates the diversity of people at Imperial and also seeks to remind people that some differences aren't visible or obvious.

Before I leave the campus, I have a final catch-up with Terry Branch on the day's events. It's then back to the office to do the paperwork on the stolen phone and pass on the CCTV from the theft to colleagues, who will examine it for any useful information. After that, I head home to rest up, so I'm ready to help keep Imperial a safe and secure place tomorrow.”

—JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

Members of Imperial wishing to contact Nigel can email him: police@imperial.ac.uk

inside*

story

mini profile

Niall Adams

Detecting credit card fraud and student plagiarism requires an expert knowledge of statistics. Dr Niall Adams, Reader in Statistics (Mathematics), spoke to *Reporter* about enthusing academics to apply their research to industry industry problems and his role as an Imperial Consultants Knowledge Transfer Fellow (KTF).



economics and retail finance. For example, number theorists may work in applications related to cryptography, while statisticians focus on applications that generate random data. In the past, a number of my colleagues have acted as expert witnesses in legal cases and industrial tribunals. For example, in copyright infringement cases they use statistical models to detect plagiarism.

What does a KTF do?

My role is to encourage and support academics in the Department of Mathematics who would like to act as consultants. Consultancy is important for the College and academics because it demonstrates the impact of research, provides real-world problems to work on, and generates revenue to support additional research activities. Acting as an experienced bridge between colleagues and Imperial Consultants, I can help academics new to consultancy to avoid potential pitfalls, such as not getting a contract in place or misunderstanding what the client wants, and to find interesting projects to work on.

What can mathematicians offer industry?

All mathematical researchers are trained to solve problems. Although engineering is often considered a much more natural world for consultancy, maths is such a diverse activity and can be found in numerous areas, including security systems,

What's the most interesting consultancy project you've worked on?

A defence, security and aerospace company wanted to detect and protect a computer network from malicious software. Working alongside colleagues, we developed a methodology and algorithms to detect concealed and malicious behaviour by analysing constantly changing graph data, generated from communications between the computers. It was a nice project because it related closely to my current research.

—ANNE COLEMAN, IMPERIAL CONSULTANTS

For more on being a KTF or consultant: www.imperial-consultants.co.uk/ktfs

Civil servant pairing scheme

Last month, Dr Kath O'Reilly (Public Health) took part in the Royal Society MP/Civil Servant Pairing Scheme, which is designed to encourage communication between scientists and government. Kath shares her experience of spending two days in Westminster and two days in the Department of Health shadowing Dr Ailsa Wight, Deputy Director and Head of Programme for Infectious Diseases and Blood Policy.

"The scheme was a real eye-opener for me. Westminster Palace was continually abuzz with activity, ranging from the weekly Prime Minister's Questions and meetings of Parliamentary Select Committees, to launches of campaigns by stakeholders. One launch I attended was 'Antibiotic Action: the arms race' where interested groups have joined forces to raise awareness of the need for new antibiotics. We also spent time with civil servants who facilitate the Science Advisory Groups during emergencies. As an example we revisited the Cabinet Office Briefing Room (COBR) meeting that was formed in response to the Japanese tsunami and damage to the Fukushima nuclear plant.



The scientists queried the quantity of radioactive material in the plant whilst MPs questioned whether UK nationals living in Japan would need to be evacuated, from which locations, and how this might practically occur. We all realised that the questions that scientists and ministers have often overlap, but there are also large differences, and these discussions occur at a much faster pace than usually encountered in science!

My visit to the Department of Health was very interesting. Members of Ailsa Wight's team work on a diverse range of topics; from handling parliamentary questions on tuberculosis to assessment of the impact of public awareness campaigns. I found the week valuable in developing a better understanding of how scientific research impacts upon society, how research is used in parliament, and also what scientists can do to engage and communicate with stakeholders."

For more on the pairing scheme see: <http://royalsociety.org/training/pairing-scheme>

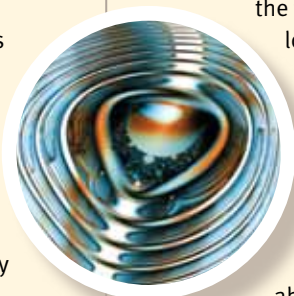
► SCIENCE FROM SCRATCH

Explained by Dr Catherine Zentile, MSc Science Communication

Meissner effect



We've all heard about solids, liquids and gases, but did you know that there are at least six states of matter? Superconductors are examples of one such state. By freezing water, we change it from a liquid to a solid and, in a similar way, if some materials are cooled down, they move from a 'normal' solid to a superconducting solid. But even for the absurdly named high temperature superconductors the transition happens at below -180°C ! To the naked eye, the material looks the same above and below the transition temperature – it is the properties that have radically changed after the transition. Firstly, it loses all electrical resistance (hence the name superconductor). But being a perfect conductor isn't the property that makes superconductors a new state of matter. Their uniqueness comes from the fact that they exhibit the Meissner effect, which means that they repel any small magnetic fields nearby. This allows superconductors to spectacularly levitate above magnets. It is this technology that has been proposed for levitating trains of the future.



Watch Catherine's 'Science from Scratch' video, featuring a levitating toy train: bit.ly/sciencescratch

IMPERIAL STUDENTS SHARE THEIR EXPERIENCES OF LIFE AT THE COLLEGE ON THE STUDENT BLOGGERS WEBSITE.

Student blogger Ken on enjoying his down time:



“It is often said that life is full of guilty pleasures. I’m sure you can think of some classic ones: the tub of Ben and Jerry’s ice cream, that

collection of ‘90s pop music or some ridiculously long Starbucks order you can get (satirical website uncylopedia reliably informs me that it’s a Double Ristretto Venti Half-Soy Non-fat Decaf Organic Chocolate Brownie Iced Vanilla Double-Shot Gingerbread Frappuccino Extra Hot with Foam Whipped Cream Upside Down Double Blended, one Sweet’N Low and one Nutrasweet, and Ice). However for me, the guiltiest of all pleasures, especially for a university student, is the simple act of doing absolutely nothing of any value whatsoever.”

www.imperial.ac.uk/campus_life/studentblogs

blog
SPOT

Faculty of Medicine awards

The Faculty of Medicine’s ninth annual NHS Teaching Awards Ceremony and Inaugural Lecture was held on the evening of 9 November in the Sir Alexander Fleming Building. Ten Winners from across the Faculty’s teaching sites received awards commending them on their contribution to teaching medical students.

Jo Williams, Curriculum Administrator in the Faculty Education Office (Medicine) attended the inaugural lecture for the event, which was called *Hustling for Health* and was presented by Professor Helen Ward, Director of Education for the School of Public Health, to an audience of over 150.

Speaking about the event, Jo says: “I found the lecture particularly interesting as I have known Helen for over 20 years, having started in the Department



Winners and speakers at the NHS Teaching Awards ceremony

of Public Health at around the same time as her. Our paths have regularly crossed due to her long involvement with teaching. Her lecture, which was both informative and accessible, tied in her groundbreaking research into sexual health, particularly of sex workers, and her love of teaching, for which she has long been a champion. She emphasised that finding out the ‘why’ as well as the ‘how’ in research

is key, as is collaborating with researchers from different disciplines.”

Awards were presented for the first time to two personal tutors nominated by the student body. The ceremony also recognised two recent Imperial graduates who had won the prestigious Gold Medal and the Betuel Prize, having been chosen from over 2,000 students across London medical schools.

▶ TIME OUT

Energy Society

Earlier this term, the Great Hall on the South Kensington Campus was taken over by a giant game, in which citizens of fictional ‘energy islands’, with names like Zania and Nacam, battled to impress an overseeing world council, and a live Twitter feed added to the futuristic atmosphere by analysing the game as it played out.

Most of the events that Imperial’s Energy Society organise take place in the real world, but if you’d stumbled across the Energy Islands game, you would be forgiven for thinking you’d stepped into another dimension.

Fun aside, the day’s purpose was serious since the 70 MSc students

were tasked with delivering a 30 per cent reduction to their imaginary world’s carbon emissions by the year 2030. They spent the afternoon deep in negotiation over resource and technology exchange, and the implementation of mitigation and adaptation strategies. The Society worked with a number of partners, including the Grantham Institute for Climate Change, the Centre for Environmental Policy and the UK Energy Research Centre, to deliver the game and is now working with the Reach Out Lab to deliver it to school students.

The event is typical of the Energy Society’s well-attended offerings, which have included a panel on offshore wind and a mixer evening for students from a variety of energy-related MSc programmes. Member Mark Jennings explains why he’s involved with the group: “Whether it’s to mitigate against climate change, avoid

conflict by providing fuel and power security, or reduce resource depletion, energy is vital. We seek to discuss the technical and sociological details of energy demand and hope the Energy Society will continue to engage across the College for years to come.”

—JESSICA ADAMS, COMMUNICATIONS AND DEVELOPMENT



◀ Representatives of the winning team at the Energy Islands event with a diagram showing their negotiation strategy

Highlights

- **Meeting times:** Once every two to three weeks, in the Grantham Institute’s boardroom
- **Society size:** Mailing list of about 350, committee of between five and 10
- **Experience required:** None
- **More information:** www.ic-energy.org



INVENTOR'S CORNER

Wood stock

Tom Welton is Professor of Sustainable Chemistry and Head of the Department of Chemistry. He has been working with postdoctoral researcher Agi Brandt and Jason Hallett, a research lecturer from the Department, to develop a process to break down wood to help the production of biofuels.



Three different wood samples (Pine, Miscanthus, and Willow) after being treated with ionic liquid.

What have you invented?

We've developed a process that enables us to separate out the component parts of wood. Wood is made up of, in a roughly even split, cellulose, hemicellulose and lignin. Of these, cellulose and hemicellulose can be used in the production of biofuels; they can be converted through biological processes into sugars, and then alcohol.

How does your process work?

We use ionic liquids (salts in a liquid state) which are powerful solvents. They're one of the few substances which can dissolve wood. Generally, using ionic liquids would result in something like a 'wood soup', which could then be processed, but the process steps require extreme operating conditions. What we've done is to use a specific ionic liquid which selectively dissolves the lignin in wood, leaving behind hemicellulose and cellulose.

Why is this useful?

Wood is potentially a useful source for biofuel, but it's difficult to get at the cellulose and hemicellulose due to the lignin, which is very good at resisting the biological processes one would use to treat the wood to produce biofuels. Our method seeks to remove the lignin and leave behind the content that can be processed for biofuels, but also to retain the lignin, which is also potentially very useful.

How might lignin be useful?

Aromatic compounds, which are largely derived from coal and oil, are used in many applications, from polystyrene to pharmaceuticals. Because these will eventually run out, there need to be alternative sources. Lignin is the only biological material you can get aromatic compounds from so we're currently conducting work aimed at deriving aromatic compounds from lignin.

—GAVIN REED, IMPERIAL INNOVATIONS

course review



By course attendee Dr Paula Salgado, Research Associate (Life Sciences)

Managing your first research group

Why did you go on the course?

I'm keen to establish an independent research career and part of this will entail managing people, as well as projects. The work experience I've done so far in labs has given me many of the tools I'll need to manage the scientific aspects of an academic career. However, I've learnt very little about management. I went on the course to find out more about this.

What did you learn?

The course provided me with a range of tools to improve my management skills. One thing I found really useful was hearing about different ways of managing different kinds of people. I also learnt more about the legal and ethical aspects of people management that a Principal Investigator must be aware of, such as equal opportunity policies, scientific misconduct rules and health and safety regulations.

How has it been helpful in your role?

As a senior member of our lab, I already have some management responsibilities, so this course has helped me in my current role and has given me tools that I'll be able to use in the future. I would recommend this course to all postdoctoral researchers, research fellows and junior PIs.

The Postdoc Development Centre will be running the Managing Your First Research Group course again in 2012. To register your interest please contact: e.elvidge@imperial.ac.uk

Innovation insights

On 25 November, Research Associate Dr Antoine Vernet (Business School) attended a one-day summit for business leaders and researchers hosted by the UK Innovation Research Centre (UK-IRC), a collaboration between the University of Cambridge and Imperial. He shares his thoughts on the event:

"In a wood-panelled room at the heart of Hursley House, the famed home of the Spitfire and now IBM's Georgian mansion, a plethora of industry speakers from firms including IBM, Microsoft, Xerox, GSK, Pfizer, Arup, Boeing UK and Vestas, shared insights into their company's innovation practices to encourage internal growth, and drive long-term value for the UK economy.

Many of the presentations were united by a call for more systematic thinking on innovation, including one by Jeremy Watson from Arup, who argued that closer interaction was necessary between government and enterprise with a global approach to problem-solving. Caroline Taylor from IBM succinctly concluded that for innovation to happen it has to not matter who gets the credit.

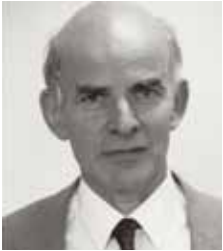
I think the summit was a fantastic opportunity for the Business School to connect with current and potential industry partners and Professors Ammon Salter and David Gann (both Business School) were keen to stress its value in facilitating engagement within the innovation community."



IBM's research and development venue Hursley House was previously owned by Vickers Aviation Limited and is the famed home of the Spitfire.

Read more about the UK-IRC Innovation Summit: <http://bit.ly/UKIRCconference>

obituaries



PROFESSOR PETER RICHARDS

Professor Peter Richards, former Dean of St Mary's Hospital Medical School and Pro Rector (Medicine), died on 29 September 2011 aged 75. College Secretary, Dr Rodney Eastwood pays tribute:

"Peter was born on 25 May 1936, read medicine at Emmanuel College Cambridge and was appointed Senior Lecturer at St George's Hospital Medical School in 1973.

In 1979, he became Dean of St Mary's Hospital Medical School, an independent college in the University of London. Peter appreciated that small independent schools could not flourish in an increasingly interdisciplinary and RAE-driven world. Sir Eric Ash, Imperial's Rector from 1985–93, had the foresight to see how the College would benefit from the acquisition of academic medicine. In 1986, Peter and Eric met in the Serpentine restaurant to work out the basis for a merger, which formally occurred on 1 August 1988. Peter remained as Dean and then Pro Rector (Medicine) overseeing the College's first medical school making possible the further and larger medical mergers in the 1990's.

Peter was a 'Mary's man'; loyal and protective, and motivated by promoting the interests of the School and its staff and students. He was keen to make the selection and training process more transparent, and agreed that the BBC should make a documentary series on the subject, called *Doctors to Be*, which was broadcast in 1992.

After retirement from the College in 1995, Peter became President of Hughes Hall, Cambridge, until 2006.

Peter is survived by his wife, Carol, and three daughters."

long
service

Staff featured in this column have given many years of service to the College. Staff listed below celebrate anniversaries during the period 4 November–31 December. The data is supplied by HR and is correct at the time of going to press.

—JESSICA ADAMS, COMMUNICATIONS AND DEVELOPMENT

20 years

- Mr Samuel Jones, Senior Technician, Chemical Engineering
- Professor Mark Thursz, Professor of Hepatology, Medicine
- Mrs Wendy Hastings, Strategic Purchasing Advisor, Finance
- Professor Sunil Shaunak, Professor of Infectious Diseases, Medicine

30 years

- Mrs Sue Pritchett, Departmental Administrator, ICT
- Miss Susan Williams, Senior Biomedical Scientist, Medicine

SPOTLIGHT

Professor Sunil Shaunak, Professor of Infectious Diseases (Medicine) 20 years



Professor Sunil Shaunak joined the Royal Postgraduate Medical School (which later merged with Imperial) as a senior lecturer in 1991 and became a Professor of Infectious Diseases in 2004. Among the highlights in his research career, Sunil has discovered several new drugs for treating infection and inflammation, and also developed them into affordable medicines. He has been based on the Hammersmith Campus throughout his career. Describing why he has stayed in his job so long, he says: "There's a magic in the ether at the

Hammersmith. You can't put your finger on it. Every evening I think the time has come to hang up my boots, but every morning I come in for one more fix."



Business practice and research working hand in hand

Earlier this year, the Minister for Universities and Science, David Willetts MP, criticised business academics for focusing too much on research. In a speech to the Comment Conference on Enterprise organised by Editorial Intelligence in April, he claimed that rewarding leading academics in business schools for producing research may not be in the long-term interests of the performance of business. Mike Wright, Professor of Entrepreneurship (Business School), argues that high quality research is needed to equip businesses for the future.

"David Willetts' comments turn on its head a policy trajectory involving a much needed attempt to increase research quality, and could also be counter-productive in terms of the business engagement and impact agenda. Too much emphasis on practical aspects without developing analytical thinking, based on cutting-edge research, may mean that skills and mental models quickly become obsolete in fast-moving areas. We may do well to recall the words of the late British economist, John Maynard Keynes: "The problems of the future cannot be dealt with simply by applying the solutions of the past, because the problems of the future are different from the problems of the past".

David Willetts criticised business academics for publishing in obscure US journals, but this misses the point. The real issue is that too few UK business school academics have published in leading US and international management journals. These journals have rigorous criteria that mean the research they publish is reliable and robust, and more UK academics need to reach these levels. That business might rely on research that has not been subject to such scrutiny is a cause for deep concern.

We must ensure that business research in leading journals is both informed by, and informs, practice. While in recent times it would appear that business academics have focused on RAE/REF incentives and have shied away from engaging with practice, such involvement would enable them to address more interesting research questions that will help them get into top journals.

The virtuous circle would also ensure that organisations get the insights from business research that they need to help them flourish."

Academic's award for mentoring the next generation of Imperial stars



Reporter speaks to Professor Jenny Higham, Deputy Principal and Director of Education in the Faculty of Medicine, who was named Mentor of the Year in the National 2011 Women of the

Future Awards, about the award and her approach to mentoring.

Congratulations on the award.

What was it for?

It was for mentoring and helping to develop others. It's something I've done increasingly over the course of my career both in the health service (I still practise as a surgical gynaecologist) and the university setting, and it's really important to me to do it well. It's not just about developing academics – I believe that everybody deserves the opportunity to be developed. Many people can't see their own potential and I think it takes relatively little to encourage people and point them in the right direction, be that sending a follow-up email or giving verbal feedback.

“I believe that everybody deserves the opportunity to be developed”

How do you identify people who might benefit from mentoring?

I have a variety of formal mentoring relationships but there are other means. It can be by encouraging people to apply for posts they might not have considered and, although they might not get that role, it does identify a pool of people who have potential and ambition. Or perhaps there is someone who is stuck in a bit of a rut – they are very good at their job but could do it with their eyes shut. They have so much more to offer but need encouragement to go beyond what is comfortable. You can make a difference as you go about your daily activities in College. For example, someone who does a good job on something, rather than expecting them to know you are happy, actually going back and saying, “thanks, that was really good”.

— SIMON WATTS, COMMUNICATIONS AND DEVELOPMENT

For the full interview see: <http://bit.ly/mentoroftheyear>

Welcome new starters

Ms Agnieszka Adamska, NHLI
Dr Claudia Battistelli, EEE
Emeritus Professor Nigel Bell, Environmental Policy
Ms Peggy Blossie, Medicine
Dr Stephanie Brown, Life Sciences
Dr Laurence Carson, Physics
Dr Ramon Casero Canas, NHLI
Ms Barbara Cerutti, Faculty of Medicine
Mrs Amy Cosgrove, Human Resources
Mr Emanuel De Abreu, ESE
Dr Sarah Essilfie-Quaye, NHLI
Miss Caroline Evans, Medicine
Miss Kathryn Fountain, Imperial College Union
Mr Peter Fox, Physics
Dr Antonio Galleu, Medicine
Dr Juan Garcia De La Cruz, Aeronautics
Miss Emanuela Gardenal, Clinical Sciences
Ms Rachael Glasgow, Business School
Mrs Anca Gourlay, Chemical Engineering
Mr Darren Grey, Faculty of Engineering
Mr Henry Ip, Bioengineering
Miss Felicity Jones, Environmental Policy
Mr Owain Jones, Environmental Policy
Mr Bastien Jordi, Aeronautics
Dr Mhairi Laird, Surgery and Cancer
Ms Deborah Laycock, Public Health
Dr Sheila Lecoeur, Humanities
Dr Maud Lemoine, Medicine
Ms Laura Lennox, Medicine
Dr Craig Magee, ESE
Mr Spiros Makris, NHLI

Miss Harriet Martin, Communications and Development
Mr Craig McFarlane, Catering Services
Ms Brie McMahon, Public Health
Miss Lidiya Megra, Physics
Dr Mayur Mistry, Chemistry
Dr Michael Motskin, Materials
Dr Priyanka Narang, NHLI
Ms Maryrose Nazaret, Medicine
Dr Ben Niu, Chemical Engineering
Dr Arpat Ozgul, Life Sciences
Mrs Bina Patel, NHLI
Mr James Pettiward, Humanities
Miss Lauren Pigram, EYEC
Mr John Plummer, Materials
Mr Ross Potter, ESE
Dr Caryl Richards, Chemistry
Dr Urvashi Sharma, Medicine
Mr Anil Sharma, NHLI
Dr Jaya Shrivastava, Faculty of Medicine
Mr John Skolout, Environmental Policy
Ms Anne Thesenvitz, Accommodation
Mr Jose Uriguen Garaizabal, EEE
Mr Michail Vavouras, EEE
Mr James Warren, Commercial Services
Dr Jane Warwick, Public Health
Dr Marion Watson, Medicine
Miss Katie Wetherell, EYEC
Miss Lynsey Whilding, Surgery and Cancer
Dr Kerry Wilson, Chemistry

Farewell moving on

Miss Anna Batcheler, International Office

Dr Christopher Bell, Bioengineering
Miss Kate Benbow-Hebbert, Business School
Miss Rosalba Carandente, Mechanical Engineering
Ms Sarah Cooke, Educational Quality (13 years)
Dr Marc Davies, Medicine
Ms Isobel Eyres, Life Sciences
Dr Daniel Farrell, Physics
Dr Carolyn Goh, Bioengineering
Mr Pavel Gonzalez, Computing
Mrs Khadijeh Hedges, Reactor Centre
Mr Timothy Hutt, Mechanical Engineering
Ms Linda Inuabasi, NHLI (6 years)
Mr Sang Lee, Bioengineering
Dr Simon McArthur, Medicine (7 years)
Dr Nafeesa Noordeen, Medicine (5 years)
Miss Tike Tosin, Life Sciences
Dr Tingting Zhu, Mechanical Engineering

This data is supplied by HR and covers the period 7–27 November. This data was correct at the time of going to press.

✉ Please send your images and/or comments about new starters, leavers and retirees to the Editor at reporter@imperial.ac.uk

The Editor reserves the right to edit or amend these as necessary.

Green wall to deliver cleaner air

On 28 November, a 200m² green wall designed to trap pollution was unveiled at Edgware Road station. Dr Linda Davies, Emeritus Professor Nigel Bell and Researcher Kyle Shakleton (all Centre for Environmental Policy) have started collecting leaf samples from the site and analysing them to determine the most efficient species for capturing and retaining particulate matter (a pollutant coming mostly from traffic emissions). The aim is to identify the plants that are most efficient at removing pollution from the atmosphere so that TfL and others can plant them in areas where pollution exceeds EU limit values for health.





15 DECEMBER ▶ PUBLIC LECTURE

Volcanoes and their impact on society

There are thought to be about 600 million people living close enough to active volcanoes to be affected when they erupt. The number of casualties from volcanic eruptions has been modest (around 300,000 in the last 200 years)

compared to the statistics for other natural hazards, but economic losses and societal disruption can be considerable. In the annual T.H. Huxley Lecture, Professor Stephen Sparks from the University of Bristol discusses how the modern globalised world is uniquely vulnerable to very large volcanic events, and why knowledge of the timing of eruptions is a key goal of volcanology.



18 JANUARY ▶ PUBLIC LECTURE

Innovation is the key to China's development

In 2011 China became the second largest economy in the world. Recognising the role of science in building a booming economy, China's government has increased funding

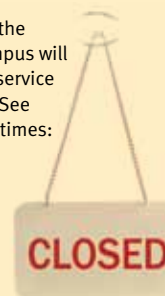
for research and improved the infrastructure to support scientific activities. In his lecture to Imperial staff, students and guests, His Excellency Mr Liu Xiaoming, Chinese Ambassador to the United Kingdom, will discuss the importance of innovation as a fundamental driver of China's economic and social development, and will shed light on China's current and future priorities.

take note

Library closures

The Central Library on the South Kensington Campus will be running a reduced service over the winter break. See below for the opening times:

- 23 December 2011
▶ open until 13.00
- 24 December 2011–
2 January 2012
▶ closed
- 3 January 2012
▶ re-opens at 08.30

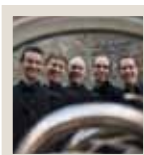


See page 8 for tips on festive reads from Debby Shorley, Director of Library Services

15 DECEMBER ▶ MUSIC

Lunchtime concert

Onyx Brass



15 DECEMBER ▶ SEMINAR

Managed networks and wicked problems in healthcare: a new solution?

Professor Ewan Ferlie, King's College London

15 DECEMBER ▶ SEMINAR

How algae produce hydrogen

Professor Thomas Happe, Ruhr University, Germany

15 DECEMBER ▶ SEMINAR

Analysis of macrophages found during the resolution of acute inflammation

Professor Derek Gilroy, UCL



16 DECEMBER ▶ SEMINAR

Mediterranean diet past/present

Dr Jeremiah Stamler, Northwestern University, USA

10 JANUARY ▶ SEMINAR

Function and regulation of innate IL-17 in infection and autoimmunity

Professor Kingston Mills, Trinity College Dublin

19 JANUARY ▶ PUBLIC LECTURE

Energy trends and climate challenges – is our climate path already locked-in?

Dr Fatih Birol, International Energy Agency

19 JANUARY ▶ MUSIC

Lunchtime concert

Matthew Rose (bass) and Gary Matthewman (piano)



24 JANUARY ▶ MUSIC

Lunchtime concert

Heath Quartet

25 JANUARY ▶ SEMINAR

Kyoto protocol, the Copenhagen accord, the Cancun agreements and beyond

Professor Henry Tulkens, Université Catholique de Louvain, Belgium

25 JANUARY ▶ OPEN DAY

Silwood Park Campus postgraduate open day

Life Sciences Masters and PhD opportunities



26 JANUARY ▶ MUSIC

Lunchtime concert

Charles Owen (piano)

31 JANUARY ▶ PUBLIC LECTURE

Leadership under pressure

Baroness Manningham-Buller, Chair of Council

2 FEBRUARY ▶ PUBLIC LECTURE

The human genome: 21st century medicine

Professor Timothy Aitman (Life Sciences)



2 FEBRUARY ▶ MUSIC

Lunchtime concert

Stamp Trombone Quartet

MEET THE READER



Lucca Da Silva Junior, Campus Receptionist (Security Services)

What are you doing in the picture?

I'm standing by the Christmas tree in the Main Entrance on the South Kensington Campus where I work. I meet so many different people in my role – not only staff and students. I speak to tourists wanting to know more about the design of the building and schoolchildren asking questions like, "Did the Queen really visit the College for its centenary?" I make sure I am clued up on facts about Imperial.

What would you do if you were editor of Reporter for a day?

I'd organise a social trip to Richmond Park and get staff and their families to come along, then interview people about their day. I think there should be more College social activities, so staff can get to know each other.

Who would be your cover star?

The Imperial College Gospel Choir performed at the X Factor final – it would be great to feature a picture of them on the stage!

Want to be the next reader featured in Reporter? Send in a picture of yourself with a copy of Reporter in your location of choice to: reporter@imperial.ac.uk

Stay in the loop

✉ Visit www.imperial.ac.uk/events for more details about these events and others. To sign up for regular updates about Imperial events please email: events@imperial.ac.uk