

Looking for **inspiration?**



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for nine
Imperial
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EDITOR'S CORNER

Going digital

“Have you converted yet?”

was the question on everyone's lips when I attended a conference for higher education magazine and newspaper editors last year. In a forum full of **self-confessed bookworms**, the question probed not religion, but whether we too had made the move from print and embraced **online publishing**. Since returning from the conference, buoyed by stories of other editors who had seen greater interaction with their publication as a result of going digital, the **Reporter team** has worked hard to move from the existing PDF website to a **rolling news service**, which we are proud to launch this month.

Reporter online provides space for more stories and more of your opinions as you can now comment on every article. We will also be populating the website with videos and photo slideshows in the coming weeks. And for staff who enjoy leafing through the paper away from their desks, *Reporter* will still be distributed every three weeks in the usual way. Visit www.imperial.ac.uk/reporter to see the new-look site.

EMILY ROSS, EDITOR

Reporter is published every three weeks during term time in print and online. The next publication day is 1 July. Contact Emily Ross:

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BAFTA for Imperial alumnus

An Imperial alumnus was awarded a BAFTA at the British Academy Television Awards ceremony held on 6 June. Alex Tate, who graduated from Imperial with an MSc in Science Media Production in 2006, was part of the production team from Channel 4/Windfall Films who won a BAFTA for the wildlife documentary *Inside Nature's Giants* in the Specialist Factual category. The series explores the anatomy of



the largest creatures on the planet, with the first two episodes revealing the inner workings of the Burmese python and the great white shark.

For Imperial's Science Communication Group Alex's BAFTA adds to the collection of awards won by alumni of their MSc courses which provide technical and theoretical training for science graduates and scientists aiming to work in the media industry. In 2006 Carlo Massarella, who completed a BSc in Physics before taking the MSc in Science Communication, was awarded an Emmy for the film *DNA: The Human Race*.

Robert Sternberg, Course Leader

for the Science Media Production MSc, said: “We're delighted with Alex's achievement. He was one of many exceptionally talented students that pass through the Science Communication Group each year. This award confirms the quality of the training provided by our MSc programmes and the high regard with which our graduates are viewed within the media industries. We look forward to more high honours and gongs in the future.”

—CAROLINE DAVIS, COMMUNICATIONS

Watch the award-winning series, *Inside Nature's Giants*, at 21.00 on Tuesday evenings on Channel 4

World-leading Imperial physicist wins Royal Medal



A physicist whose pioneering work in quantum optics has established the UK as a leader in the field has won a Royal Medal, the Royal Society announced this month.

Sir Peter Knight, Deputy Rector (Research), will formally receive the prestigious prize at a ceremony on 30 November. Only three Royal Medals are awarded each year in recognition of the most important contributions to

natural knowledge and to interdisciplinary or applied sciences. Congratulating Sir Peter, Rector Sir Keith O'Nions said:

“Winning the Royal Medal is a rare achievement but Peter is a rare man, so it comes as no great surprise to any of his colleagues that he has been recognised in this way.”

Sir Peter is best known for his instrumental role in developing and establishing quantum optics in the UK, which is a field of physics that uses quantum mechanics to understand how light and matter interact. His other key contribution is to advancing understanding of how quantum physics allows new ways of information processing, known as quantum computing.

On winning the Royal Medal, Sir Peter said: “I'm delighted and stunned. It's wonderful to be in the company of the kind of great people who have won it in the past – now I'll have to work hard to live up to it.”

—ABIGAIL SMITH, COMMUNICATIONS

“Winning the Royal Medal is a rare achievement but Peter is a rare man, so it comes as no great surprise to any of his colleagues”

Hear an interview with Sir Peter in the July edition of Imperial's monthly podcast, available on 1 July at: www3.imperial.ac.uk/media/podcasts

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➔ www.imperial.ac.uk/reporter

Imperial researchers celebrate new Fellowships

Nine Imperial researchers have been celebrating recently after being elected to prestigious Fellowships in the UK and USA.

Elections in 2010 resulted in three new Fellows of the Royal Society from Imperial: Professors Peter Cawley, who leads the Non-destructive Evaluation Group (Mechanical Engineering), Russell Cowburn, Chair in Nanotechnology (Physics) and Elizabeth Simpson, Senior Research Investigator (Medicine). They are joined by Visiting Professor John William Connor (Physics), a consultant in the Theory and Modelling Department at Culham Science Centre in Oxford. The Fellows are now permitted to place the letters FRS after their names.

Professors Marc Feldmann and Sir Ravinder Maini (both Kennedy Institute for Rheumatology) were announced as new Fellows of the National Academy of Sciences in the USA – a rare honour – in recognition of their distinguished and continuing achievements in original research. They discovered that a single

protein mediator, termed TNF α , was instrumental in driving the disease process behind rheumatoid arthritis.

Also this month, Professors Eric Aboagye, Director of the CRUK-EPSRC-MRC-NIHR Comprehensive Cancer Imaging Centre at Imperial (Surgery and Cancer), Jeremy Nicholson, Head of the Department of Surgery and Cancer, and Richard Wise, Head of the Cognitive Neuroimaging Group (Medicine) were elected Fellows of the Academy of Medical Sciences. Academy Fellows are elected for outstanding contributions to the advancement of medical science, for innovative application of scientific knowledge or for conspicuous service to healthcare.

—LAURA GALLAGHER, LUCY GOODCHILD AND COLIN SMITH, COMMUNICATIONS

For more information on the new Fellows and to read their reactions see: www3.imperial.ac.uk/news/fellowships1

From top to bottom: Professors Russell Cowburn, Elizabeth Simpson, Marc Feldmann, Sir Ravinder Maini and Eric Aboagye



2010 Rector's awards

Twenty-one academics have been recognised this month with Rector's Awards, after being nominated by colleagues and students. A further seven have had their exceptional work recognised by the award of Rector's Medals, which will be presented at the graduation ceremonies on Commemoration Day in October 2010.

Professor Julia Buckingham, Pro Rector (Education), said: "Imperial is fortunate to attract highly talented students from around the world, and nurturing their abilities in a supportive environment is one of our most serious, and often most enjoyable, responsibilities."

Excellence in Teaching

The four Medal winners in the Excellence in Teaching category are Professor Anthony Bull (Bioengineering), Professor Nigel Bell (Centre for Environmental Policy), Dr Frank Berkshire and Professor Martin Liebeck (both Mathematics).

Winners of Awards for Excellence in Teaching are Dr Jeremy Bradley (Computing), Dr Oscar Ces (Chemistry), Dr Tilly Collins (Life Sciences), Mrs Jennifer Jones (NHLI), Professor Mike Laffan (Medicine), Dr Simon Leather

(Life Sciences), Professor Nick Long (Chemistry), Dr Mark Sutton (Earth Science and Engineering), Professor Peter Török (Physics), Dr Luc Vandeperre (Materials), Dr Ramon Vilar (Chemistry) and Dr Jill Warner (Medicine).

Excellence in Pastoral Care

The Medal winners in the Excellence in Pastoral Care category are Mrs Margaret Cunningham (Computing) and Dr Mike Emerson (Medicine).

Awards for Excellence in Pastoral Care go to Dr Anna Thomas-Betts (Educational Quality Office), Professor Paul Luckham (Chemical Engineering and Chemical Technology), Dr Sara Rankin (NHLI) and Dr Lynda White (Mathematics).

Excellence in Research Supervision

The Medal winner in the Excellence in Research Supervision category is Professor Michael Stumpf (Life Sciences).

The Award winners in this category are Professor Geoff Garnett (Public Health), Dr Mark Birrell (NHLI), Dr Ned Ekins-Daukes (Physics), Dr Paul Kemp (NHLI) and Professor EJ Milner-Gulland (Life Sciences).

in brief



Faculty Operating Officer for the Faculty of Medicine

Nigel Buck, Director of Property Management, has been appointed Faculty Operating Officer for the Faculty of Medicine. He will begin

attending key Faculty meetings with immediate effect and move to the post substantively from 14 June. Mr Buck will succeed Mr Philip Blissett who retired on 21 May 2010. In 1989 Mr Buck became Assistant Secretary (Development and Planning) at the Royal Postgraduate Medical School (which became part of the College in 1997), supporting academic services, commercial exploitation and planning. More recently he has been responsible for plans for the development of the College's new campus on Wood Lane.

Head of the Department of Materials

Professor Neil Alford has been appointed as the new Head of the Department of Materials with effect from 1 August 2010 for a period of five years, in succession to Professor Bill Lee. Professor Alford was appointed Professor and Pro-Dean of Faculty at London South Bank University in 1994 and in 2006 he joined Imperial as Professor of Physical Electronics and Thin Film Materials. Working for 25 years in the field of materials engineering, Professor Alford has established an international reputation for his achievements, which include the development of high-strength cements and viscous polymer processing of ceramics.

Independent league tables

Imperial ranked third in *The Complete University Guide*, published in *The Independent* on 20 May. In subject tables the College was placed first for civil engineering, second for business studies, chemical engineering, materials technology and mechanical engineering, third for aeronautical and manufacturing engineering, biological sciences, computer science, electrical and electronic engineering and medicine, and fourth for chemistry, geology, mathematics and physics.

“I propose ‘The Jolly Rector’ because it suggests a jovial tone.”

ONE STUDENT'S RESPONSE TO THE UNION'S CALL FOR NAMES FOR ITS NEW BAR, WHICH WILL REPLACE DA VINCI'S IN BEIT QUAD. OTHER SUGGESTIONS INCLUDED 'THE DEATH STAR' AND 'BOHEMIAN', IN TRIBUTE TO BRIAN MAY – ARGUABLY THE COLLEGE'S MOST FAMOUS ALUMNUS.

Read more at: <http://dougal.union.ic.ac.uk/phase3/?p=154>

Imperial College Healthcare NHS Trust

Right on track

The Trust is embarking on a programme to improve patients' experience using real-time technology. By the end of this month, more than 140 handheld electronic devices and five kiosks will record patients' experiences of their care across the Trust's five hospitals allowing instant access to their feedback. The system known as *I track* will ask patients to rate a number of core aspects of their care, including staff attitudes, their accommodation, their experiences of a clinical trial, if relevant, as well as asking for an overall care rating.

There will also be additional sets of questions on each of the devices which correspond to the patient's specific clinical area, including maternity, paediatrics, ophthalmology, outpatient and inpatient care.

Director of Nursing Professor Janice Sigsworth (Medicine) said: "This is the first time a programme of this size and scope has been undertaken in an acute Trust. It will give us dynamic real-time data, which will enable us to immediately flag up potential issues and change the way we care for our patients. We recognise what makes a difference is the quality of the interactions that patients have with staff, including them fully, explaining their treatment and giving them a chance to ask questions and be involved in decisions."

Prior to the use of the feedback devices, data on patient satisfaction was obtained through annual inpatient surveys, which saw a national agency contact a small sample of patients once they returned home.

—IMPERIAL COLLEGE HEALTHCARE NHS TRUST PRESS OFFICE

Pilot plant project underway in Chem Eng



Left: A portion of the old pilot plant facility, which will be replaced by October 2011. Right: An artist's impression of the new teaching space.

Work to develop new teaching and research facilities for the Department of Chemical Engineering and Chemical Technology in the Aeronautics and Chemical Engineering (ACE) Extension commences this month. The project will see the installation of a state-of-the-art pilot plant to investigate methods for capturing carbon dioxide, replacing facilities which were decommissioned earlier in the year when no longer fit for purpose. Students in the Department will learn the practical skills required to operate pilot-plant-scale chemical plants, whilst researchers will look at

how carbon dioxide can be extracted from the emissions of power stations.

As part of the development, a new mezzanine floor will be constructed between levels 1 and 2 of ACE, where teaching and research laboratories will be located alongside the pilot plant.

Project Director Dr Daryl Williams (Chemical Engineering and Chemical Technology) described the project as the biggest development for the Department in 30 years. He added: "As the largest chemical engineering department in

Europe we want to be at the forefront of both teaching and research. With a carbon capture pilot plant

actually in the building, we'll be able to give our students hands-on training that they could never get from a book or the web, as well

as perform carbon capture research for a carbon neutral future economy."

The new facilities will be ready for occupation by October 2011.

The entrance to ACE from the walkway is closed from 14 June until October.

"we'll be able to give our students hands-on training that they could never get from a book or the web"

Mathematically musical

The science behind improvisation

The way a person's brain responds when they are listening to a musician improvising was one of the topics discussed at an Imperial conference held on 19 May.

At the *Complexity and Networks – Neuroscience* conference, organiser Professor Henrik Jensen (Mathematics) introduced a variety of speakers, who covered topics including the psychology of emotional moments in music, how to analyse

musical creativity and perceptions of beauty.

Among the highlights was a performance by internationally renowned concert pianist Dr David Dolan, who improvised with the classical music group Trio Anima, then asked the audience for feedback. His talk considered how a musician's creativity can affect the listener's response to music, looking particularly at the audience's reaction to musicians straying from the written score when they improvise.

The conference attracted mathematicians, physicists, neuroscientists and musicians.

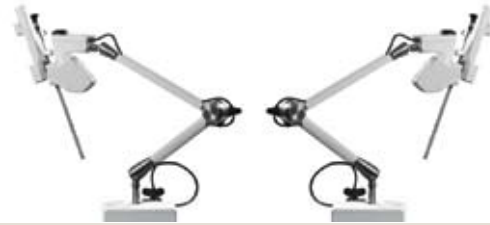
—LUCY GOODCHILD, COMMUNICATIONS



Visit www3.imperial.ac.uk/news/musical to watch a video featuring Professor Jensen and Professor John Sloboda from the Guildhall School of Music and Drama talking about why music and maths fit together. You can also see Dr David Dolan performing with improvisation group Trio Anima.

media mentions

—ABIGAIL SMITH, COMMUNICATIONS

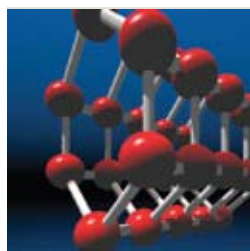


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THE DAILY TELEGRAPH ▶ 21.5.2010

It's life, Craig, but not as we know it

Biologist Craig Venter has created synthetic life by transplanting into a microbe a set of genetic code sequences that were built from scratch, reports *The Daily Telegraph*. Dr Venter claims that his work opens up the possibility of manufacturing artificial organisms



designed to carry out specific tasks, such as making vaccines or cleaning up pollution. Describing the work as “a landmark study”, Professor Paul Freemont, Co-director of Imperial’s Centre for Synthetic Biology, said: “The applications of this enabling technology are enormous and one might argue this is a key step in the industrialisation of synthetic biology leading to a new era of biotechnology.”

NEW SCIENTIST ▶ 26.5.2010

Robot set to change the shape of surgery

A surgical robot that can change its shape to manoeuvre around organs and navigate inside arteries is being developed by a team at Boston University, reports *New Scientist*. Currently keyhole surgical instruments are either stiff and inflexible and so can only be manoeuvred in straight lines or flexible and therefore unable to transmit any force. The team hopes that its concentric tube robot will tackle both shortcomings. Welcoming the work, Professor Brian Davies (Mechanical Engineering) told *New Scientist*: “There’s a great need for higher surgical dexterity and these nested tubes seem quite an advance.”

THE GUARDIAN ▶ 26.5.2010

Thumbs down for dangerous and severe personality diagnosis



A £200 million scheme to treat 240 UK prisoners deemed to have dangerous and severe personality disorder (DSPD) in four secure units is failing to show any positive results, Professor Peter Tyrer (Medicine) told *The Guardian*. Calling for the scheme to be ended, he claimed that the diagnosis of DSPD was uncertain in many cases and that prisoners spend only 10 per cent of their time taking part in therapeutic activities. “About 85 per cent should not be detained under these circumstances,” he said. “Many are in prison for homicide or violent offences and should have been released at the end of the sentence. Instead, many are moved into the DSPD programme as they are about to leave for the community.”

DAILY EXPRESS ▶ 27.5.2010

Ethics of forced treatment debated

A woman who has refused to undergo cancer treatment because of her phobia of hospitals and needles can be forced to attend, following a legal ruling under the Mental Capacity Act that she is incapable of making the decision herself. *The Daily Express* reports that the ruling has been supported by mental health charities and medical ethicists, including Dr Daniel Sokol (Public Health), who said that common sense would “dictate this is the right thing to do”. He adds: “To do otherwise would be abandoning a vulnerable patient to a premature death.”



awards and honours

ENGINEERING

RAE Engineering Leadership Awards

In March, five Imperial undergraduates were recognised in the Royal Academy of Engineering’s Engineering Leadership Advanced Awards 2010. The objective of these awards is to allow ambitious, inspiring engineering undergraduates – those who want to become leadership role models for the next generation of engineers – to undertake an accelerated personal development programme. The Imperial students who will take part in the programme are: Tom Beswetherick,

James Carr, Karn Shah and Philip Vautier (all Civil and Environmental Engineering) and Jacob Dobson (Mechanical Engineering).

COLLEGE

Amazing mace



The silversmith who created the College’s ceremonial mace, Carl Padgham of Padgham and Putland, has been awarded a Gold Award in the Senior Silversmith category in the 2010 Goldsmiths’ Craft and Design Awards. The Goldsmiths’ Company commissioned the mace as a gift for Imperial to mark its independence in 2007. Weighing

7.1kg and measuring 1.2 metres, the mace incorporates a helix-shaped stem representing the structure of human DNA to reflect the College’s mission to carry out and apply cutting edge scientific research. It is topped by a head depicting the College’s crest and also includes the Goldsmiths’ Company’s coat of arms.

NATURAL SCIENCES

Kornyshev wins RSC prize

Professor Alexei Kornyshev (Chemistry) has been awarded a 2010 Royal Society of Chemistry (RSC) Interdisciplinary Prize. Professor Kornyshev was recognised for his integrated view on natural sciences and his many outstanding contributions at the interface of chemistry with both physics and biology.

MEDICINE

Mortimer wins AUA fellowship



William Mortimer, Operations Manager (Medicine), was awarded a Fellowship by

the Association of University Administrators at the Association’s annual conference held at the University of Warwick in April. He was presented with his award by the plenary speaker, Professor Les Ebdon, Vice Chancellor of the University of Bedfordshire, who obtained both his BSc and PhD at Imperial.

Supercar success

On 27 May, Imperial students driving an electric supercar became the first to drive an all-electric vehicle around the M25 twice on one battery charge – making a new UK record – in the lead-up to the team's attempt to cross the Americas in July this year and create a world record.

Imperial's Racing Green

Endurance (RGE) team drove two laps around the M25 in their specially modified electric Radical SRZERO supercar. The M25 journey forms part of

a long-term strategy by the RGE team to test the performance of SRZERO before they embark on a trip across North and South America in July.

The team, which comprises undergraduates, postgraduates and alumni from the Faculty of Engineering, plan to be the first in the world to drive

an electric vehicle the full 26,000 kilometres of the Pan American Highway, which is the longest road on Earth – starting at the northern tip of Alaska and finishing at the southern tip of South America.

Part of the project will see the team assessing the performance and endurance capabilities of electric vehicles over long distances. They also hope

that driving their car across two continents will raise awareness about the benefits of electric vehicles, and dispel the public perception of electric cars as slow and unattractive, with a limited range.

Alexander Schey, RGE Project Manager, who is a fourth year Mechanical Engineering undergraduate says, "We'll face all sorts of engineering challenges during the drive from North America to South America. There are no emergency breakdown services in the jungles of Colombia or

the frozen wastes of Alaska, so we need to do as much testing of the car as possible before our Pan-American journey begins."

The team designed, integrated and installed the different components into the electric vehicle, including two motors that were designed and built by an Imperial spin-out company, EVO Electrics. The electric motors are ultra lightweight, which reduces the car's load and increases its energy efficiency.

The Racing Green Endurance project runs alongside the wider Imperial Racing Green initiative (IRG), which is training students to become the engineers who will develop the next generation of zero emission vehicles in the future. The IRG project is an initiative of the Energy Futures Lab, which is the College's hub for interdisciplinary energy research.

The Director of the Energy Futures Lab, Professor Nigel Brandon (Earth Science and Engineering), said: "Apart from being great fun, we hope that the Racing Green Endurance project will show the world the leaps and bounds that electric vehicles are making. This project is also helping the next generation of UK engineers gain valuable experience in the field, which is vital for their careers and the future of the British manufacturing."

—COLIN SMITH, COMMUNICATIONS

"We hope that the Racing Green Endurance project will show the world the leaps and bounds that electric vehicles are making"



Count your chickens (and robins and pigeons...)

People could help to prevent species of birds from becoming extinct by recording sightings of all kinds of birds online, including common species, according to a new study published on 1 June in *PLoS Biology*.

Imperial researchers behind the study are urging the public to become 'citizen scientists' to help prevent today's common bird species from becoming threatened.

To establish whether a certain species of bird is at risk of becoming endangered, so that they can act to protect it, scientists compare present-day data on the species with a 'biodiversity baseline', which describes when and where birds were found in the past. The study reveals that far less data is currently being collected on common species than in the past, meaning that there is no up-to-date biodiversity baseline for scientists to refer to.

"We need people's help to record the birds they see, however commonplace"

Over the past 30 years, the scientific literature has increasingly concentrated on recording data about species that are endangered and those that live in protected areas of high biodiversity, according to the study. It shows that whereas early museum records dating back two centuries covered all species, including common birds, today scientists collect very little data on common species.

Lead author of the study, Dr Elizabeth Boakes (Life Sciences) said: "The lack of recent data on common species and areas of low biodiversity is extremely concerning – we need people's help to record the birds they see, however commonplace, on bird-watching websites. We think this kind of citizen science will be key to future conservation research."

She added, "People may not think that they are helping much by recording the date they saw a pigeon in central London, say, but actually it could make a big difference as we do not know what threats species might encounter in the future."

—LUCY GOODCHILD, COMMUNICATIONS



The Racing Green Endurance team with *Red Dwarf* star and electric vehicle enthusiast Robert Llewellyn (standing far left).

One-a-day heart polypill trial

Imperial researchers are exploring whether a new, low cost, one-a-day combined 'polypill' could reduce the risk of heart attacks, strokes and other cardiovascular problems, in a new international trial that was launched on 17 May.

The new 'Red Heart Pill' contains low-dose aspirin, a statin and two blood pressure-lowering medicines in a single polypill. It is expected to be substantially cheaper than existing medications to combat cardiovascular problems.

Researchers are recruiting 2,000 volunteers who are at high risk of heart attack or stroke, or who have already had such a cardiovascular event, for a two-year trial of the Red Heart Pill.

The researchers behind the trial are investigating whether patients are more likely to stick with a preventive treatment regime using a single, one-a-day polypill, than with multiple



"Combining medications in one polypill could enable people in low-income countries to have easy access to cheap preventive medication."

tablets. They will also be exploring whether the Red Heart Pill is effective at reducing blood pressure and lowering cholesterol.

It's expected that the Red Heart Pill could be made available in low-income countries at a substantially lower cost than separate medications, providing a cost-effective approach that could potentially save millions of lives.

Co-Principal Investigator on the study,

Professor Simon Thom (NHL) said: "The polypill idea is really simple: make it easier for people to get the medication they need by giving them just one polypill to take each day, rather than lots of different pills that may need to be taken at different times.

It's likely that combining medications in one polypill could enable people in low-income countries to have easy access to cheap preventive medication."

—LAURA GALLAGHER, COMMUNICATIONS

Autism finding could lead to simple urine test for the condition



Children with autism have a different chemical fingerprint in their urine from non-autistic children, according to new research published in the *Journal of Proteome Research*, on 4 June.

Imperial researchers behind the study suggest that their findings could ultimately lead to a simple urine test to determine whether or not a young child has autism.

Autism affects an estimated one in every 100 people in the UK. People with autism have a range of different symptoms, but they commonly experience problems with communication and social skills.

People with autism are also known to suffer from gastrointestinal disorders and they have a different make-up of bacteria in their guts.

The study's research shows that it is possible to distinguish between autistic and non-autistic children by looking at the by-products of gut bacteria and the body's metabolic processes in the children's urine.

The distinctive urinary metabolic fingerprint for autism identified in the study could form the basis of a non-invasive test that might help diagnose autism earlier. This would enable autistic children to receive assistance, such as advanced behavioural therapy, earlier in their development than is currently possible.

Corresponding author of the study, Professor Jeremy Nicholson (Surgery and Cancer) said: "We hope our findings might be the first step towards creating a simple urine test to diagnose autism at a really young age, although this may be a long way off – such a test could take years to develop. A urine test might enable professionals to quickly identify children with autism."

—LAURA GALLAGHER, COMMUNICATIONS

The Grantham Institute celebrates its research



To find out more about the Grantham Institute for Climate Change, download the full report at www3.imperial.ac.uk/news/outlook2010

Imperial's Grantham Institute has published its *Outlook 2010* report to celebrate its progress in the three years since it was formed. The publication presents an overview of the Institute's priority research areas, introduces some of its researchers and PhD students, and highlights its work in public engagement and partnering with external organisations.

The Grantham Institute was founded in 2007, since when it has established a strong community of world class researchers and a thriving cohort of PhD students, which now stands at 37 strong. The Institute's research programme focuses on improving our understanding of the science behind climate change, as well as developing new technologies for mitigating and adapting to its worst effects.

Researchers are working to answer questions that include:

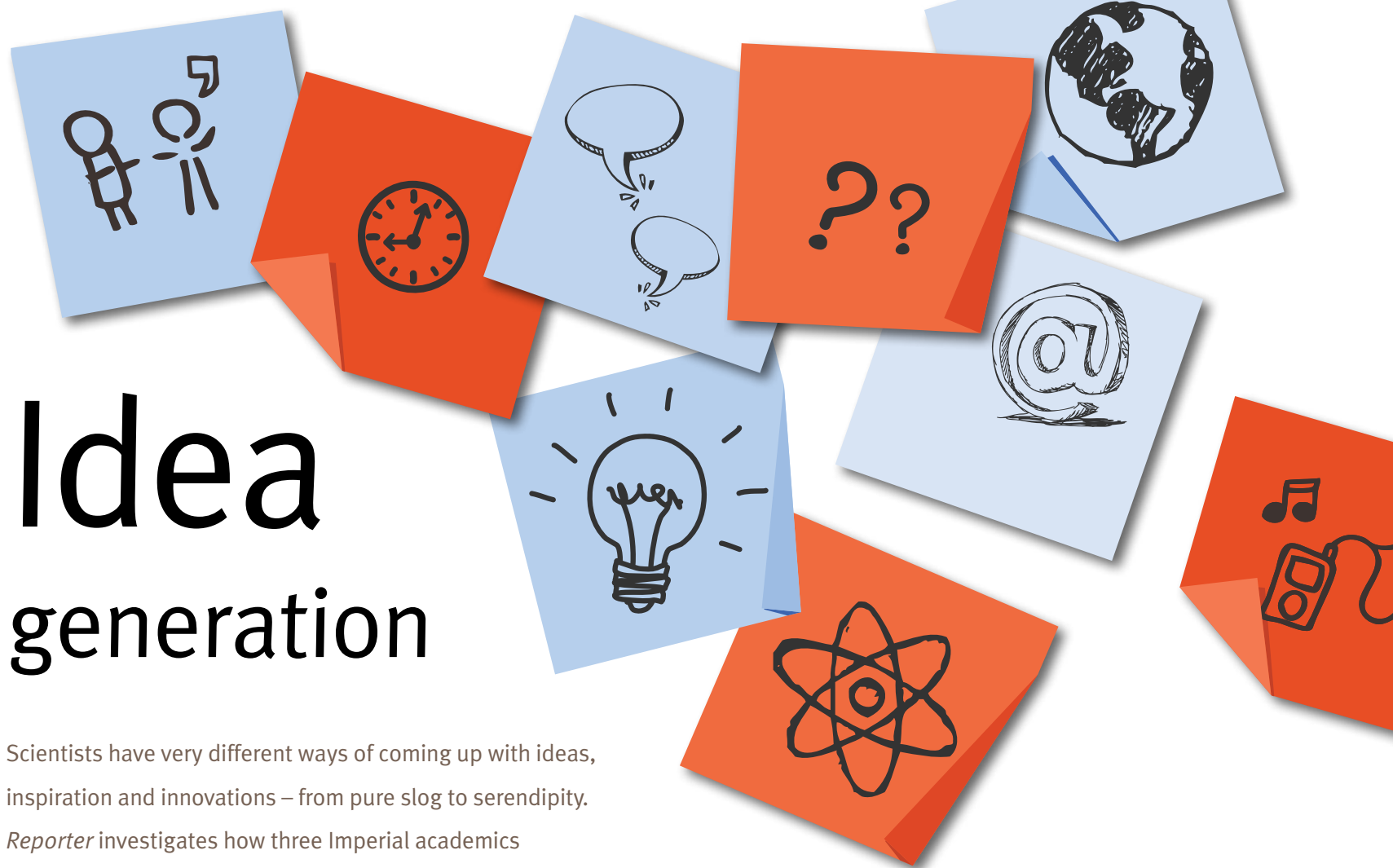
- How can we improve our modelling of ocean dynamics – one of the most computationally intense problems in modern science?
- Can countries with the technology to make a plastic bag also make a solar cell?
- What are the best ways of capturing and safely storing carbon dioxide from power stations?

The report also presents an update on the Institute's work

broader influencing work: "We continue to welcome public opportunities to discuss our research – to speak frankly about what we know, where uncertainties lie, and what we have yet to discover," says Professor Sir Brian Hoskins, Grantham Institute Director.

"We are keen to make sure that our research influences policy and feeds into public debate, so that we fulfil our commitment to society by ensuring that our research helps those whose lives are likely to be most affected by this pressing global challenge."

"We are keen to make sure that our research influences policy and feeds into public debate"



Idea generation

Scientists have very different ways of coming up with ideas, inspiration and innovations – from pure slog to serendipity. *Reporter* investigates how three Imperial academics generate their ideas.

Tip 1: Talk it out

Research is rarely down to individual efforts; increasingly, scientists from different disciplines work together to confront some of today's biggest challenges, such as global health and climate change. At Imperial's Centre for Plastic Electronics, where physicists, chemists and engineers work together on applications of plastic electronic materials, including sustainable energy solutions, Professor Jenny Nelson (Physics) is researching plastic solar cells.

Jenny confesses that in her research it's never very clear what is an idea. She explains: "Sometimes you're just thinking about what you have to do next to solve a prob-

lem. Some people will come up with things out of the abstract but what I do is more problem driven. In this environment that's quite useful, as there are lots of problems to solve!"

The ultimate goal of Jenny's research is to produce some of the trillion watts of electric power the world requires today sustainably and cheaply; and that drives her ideas. "A lot of the creative thinking in our research, in my experience, is involved in solving problems. Having gained an understanding of how a solar cell works, we

“It's not so much the creativity, it's the mental ability of trying something new”

think about what we need to change to make it better, or what we need to measure to find out what the problem is, if it doesn't work.”

According to Jenny, her ideas are best generated through discussion.

think about what we need to change to make it better, or what we need to measure to find out what the problem is, if it doesn't work.”

If someone from the team has some results, the group will sit together and discuss them – each person coming from a different angle, with different thoughts and views. “You see things and you hear things, then you think ‘why don't we try this or that?’ and that's where these ideas come from,” she says.

Tip 2: Read blogs, buy a blackboard

Interaction is key to many researchers' inspiration, as Professor Henry Rzepa (Chemistry), confirms. Henry gets ideas from people around the world, leading him to his most recent discovery: a new kind of chemical bond between carbon and helium, which is notoriously resistant to bonding with other atoms.

It all started when Henry read a blog written by Professor Steve Bachrach – a chemist working at Trinity College, Connecticut, USA –

about the element astatine.

“Nowadays, blogs are an amazing source of inspiration,” he explains. Henry says that a day after he read Bachrach's blog, an idea began to form when a colleague walked into his office without saying a word, drew a structure on his blackboard with an exclamation mark next to it and walked out again. “I can have a conversation with a chemist without actually saying a single word – it's like two-year-olds talking in pictures!” he says.

Henry had made a connection between Bachrach's blog and what his colleague drew on his blackboard: he realised he could make an improvement to the research the blog was based on by changing one of the chemical ingredients. “At that stage it was simply a connection between something on my blackboard and something I'd read – it was just a germ. I kept improving it in small increments, I was basically

just tying up the knots.”

Gradually, as he made the connections, his idea moved away from the original blog topic and towards a completely new one: can you form helium bonds? That required one final connection, which Henry made at a conference in Barcelona, when he heard a German colleague speaking about joining two protons to a new kind of molecule, a carbene.

“As I listened to him, I realised that two protons are equivalent to one helium atom. I went back to my notes, looked at my molecule and realised it really could grab a helium,” he says.

For Henry, ideas come from building these connections and daring to try something new – starting from scratch can be difficult and daunting. “It’s very frightening,” he admits. “People tend to think they have to be instantly creative and come up with brilliant ideas from scratch but it’s not so much the creativity, it’s almost the mental ability of trying something new.”

Henry says generating ideas is something anyone can do. “All you have to do is find a couple of ideas you like and spot a connection – if you generally keep your ears and eyes open, something will eventually click.”

“We need curiosity-driven research; real discovery is when you discover something you weren’t looking for”

Tip 3: Look in obvious places

In the field of complexity science, researchers including Professor Henrik Jensen (Mathematics and Institute for Mathematical Sciences), look at connections in nature to try to understand how each part of the network impacts on the others. “I started out as a theoretical physicist, then moved into complexity science, where we’re trying to understand how the interactions between the parts impact on the properties of systems,” he says.

Henrik’s research spans many topics, including the various interactions in the body that result in fever and the brain’s responses to music – something people are known to have a strong emotional reaction to. “We all know something is happening inside us when we hear music but we know very little about what that is,” he notes.

Henrik’s group is setting up research projects on this topic, analysing how musicians’ brains and those of the audience respond to improvisation. As part of this research Henrik will be working with world-renowned concert pianist Dr David Dolan, from the Guildhall School of Music and Drama. David’s motivation is to persuade people you need improvisation in classical music, as it is becoming more and more rare. David is hoping to understand more about what exactly improvisation does and why improvisation added to a piece of classical music makes it particularly exciting or moving,” Henrik explains.

Having been interested in music and art from a young age, when he was growing up in Denmark, Henrik believes his interests have had a significant bearing on his ideas. “In Denmark music and art are taken seriously – it’s seen as necessary to nurse these interests to develop a whole human being. This could be the reason my passion for music continues and is now part of my work.”

Henrik says that, with a passionate interest, it’s all about making connections with people and that is how the ideas start to flow. “My youngest daughter started to learn the violin when she was four years old, so I decided to learn with her and I became very interested in music again,” he says. Following that, he met a student at one of Imperial’s summer schools, who was contemplating doing a PhD. She played sitar and piano, and wanted to combine her musical interests with scientific research. Henrik had previously worked with a psychologist, Adrian Burgess, using EEG to measure neuronal changes in response to hidden three-dimensional images. “So I suggested doing a project on music and the brain.” Henrik explains.

Ultimately, Henrik says it’s curiosity and speculation that generates ideas, which can then end up as important discoveries. “We need curiosity-driven research; real discovery is when you discover something you weren’t looking for. Life is like that – a bit accidental. Most of us won’t make discoveries but if we don’t keep looking, no one will have them.”

—LUCY GOODCHILD, COMMUNICATIONS

Meet the scientists

Professor Jenny Nelson and her research group find discussing their results helps generate ideas.



Professor Henry Rzepa says keeping your eyes and ears open is key to having good ideas.

Professor Henrik Jensen in his office where he conducts innovative research on one of his key passions – music.





Gearing up for a top career

In the increasingly competitive job market Reporter finds out what the Careers Advisory Service is doing to help Imperial students get the jobs they want.

Over the last year the Careers Advisory Service has seen a record level of student interest – with 3,120 students stepping through the door of its Level 5 Sherfield Building office for advice, in addition to another 5,540 registered with the Service’s online system and over 8,000 attending careers events. Elspeth Farrar, Director of the Career Advisory Service, says that now, more than ever, students need to be active in their career development. “Our role is to ensure that when students go out into this very competitive marketplace they are well prepared for whatever an interview throws at them,” she says.

Elspeth is in constant contact with employers and graduate recruiters from all sectors and recently asked a range of them how Imperial students perform at different stages of the job selection process – from the application form and online tests to interviews and assessment centres. “The feeling is that Imperial students have fantastic CVs, they excel in psycho-

metric tests but where they tend to fall down is at the face to face interview stage and as a result they aren’t doing as well as they should be in securing job offers,” she reveals.

Elspeth says that employers recognise that Imperial students are hardworking and ambitious, and have indisputable technical skills, but their communication skills sometimes let them down. “Imperial students aren’t as good at giving clear evi-

dence on how they gained particular skills and they also tend to lack commercial awareness. Another common criticism is that in group exercises they are great at leading but not so good at collaborating.”

Elspeth has used this knowledge over the last year to refocus the activities of

the Careers Advisory Service on developing students’ interview skills and helping them prepare for different aspects of assessment centres. Mock interviews have become an integral part of the service they provide for students, in addition to regular workshops on group activities and presentation skills. The Service also engaged the help of several companies to run interactive workshops on coping with assessment centres including Accenture, IBM, Watson Wyatt and E.ON.

To increase the students’ business

skills, Elspeth and her team have developed a set of enterprise workshops to help students develop business vocabulary and understand concepts, such as marketing, finance and strategy, with the help of a number of employers. At the same time, the Careers Advisory Service is also actively marketing Imperial and encouraging companies to think about Imperial as a place to seek interns, resulting in 617 internships being registered with JobsLive, the Service’s online vacancy system, this year compared to just 333 in the previous year.

Getting departments involved

The Careers Advisory Service is also working with departments to help students understand and promote the skills they are gaining from their degrees alongside academic knowledge – skills such as problem solving, team working and communication.

Together with Dr Pat Leever (Mechanical Engineering), Elspeth identified existing teaching activities in the Department, which could be recrafted to enhance these skills. The pair focused on the third year project, where students form small groups to design, make and test a product.

Pat noted that Imperial graduates were often more focused on getting the right answer and less on developing a good process to reach it. “In the past, at the end of the group project each individual student had to write a personal critique but the submissions mostly focused on the task and what their role was,” says Pat. “However, it’s important for the students to learn that engineering is about working as a team and not just about what individuals can do technically.”

With Elspeth’s help, Pat has written a specification for the type of issues the students should consider – pushing them to be a bit more reflective on their own development. It also asks them to look back to the theory learnt on the second year Business and Management course and reflect on the way their group worked like a small organisation.

Professor David Nethercot, Deputy Principal of the Faculty of Engineering, is keen for this type of thinking to become integral to the Faculty. “This type of awareness will make our students stand out in interviews – it’s about being a bit more streetwise,” he says.

To share your views on students’ professional skills, visit: www3.imperial.ac.uk/news/topcareer

To find out how your Department could work with the Service, contact Elspeth at: e.farrar@imperial.ac.uk

inside

story

mini profile



Catarina Sismeiro

Dr Catarina Sismeiro, Associate Professor (Business School), on modelling consumer behaviour and decision making in the NHS, media and entertainment industry.

Can you describe your research area?

My primary interests include modelling consumer behaviour in interactive environments, such as the internet and mobile phones, as well as studying the decision-making process of physicians.

How have you worked with computer scientists in your research?

I am currently studying the roles of images and text in multimedia messages sent by commercial companies to mobile phones, working with computer scientists from the University of Catania, Italy. We have used automatic image analysis and text mining methods, together with statistical analysis, to help predict the best commercial offers to send

to mobile users. As a result of this research we have developed a system that significantly increases the profitability of mobile phone operators.

How are you using decision theory to look at the entertainment industry?

I am looking at the decisions taken by studios, relating to the financing of movies, using a detailed and novel dataset of financing decisions from major American studios, such as Disney, 20th Century Fox, Sony, Warner Brothers, etc. We have found that studios tend to co-finance the riskier projects and go solo for the least risky ones.

What NHS research are you doing at the moment?

I am studying the impact of marketing on the decisions physicians take when prescribing medication. In particular I'm looking at whether they prescribe branded drugs or generic drugs – those that include the same active ingredient as branded drugs, but which are sold under no specific brand name and produced at a lower price. We find that, among physicians, there are those who are price sensitive and stick to prescribing cheaper generics. But others, who are sensitive to marketing, tend to switch to other drugs that are still under patent protection, so are more expensive. As a result, NHS savings are not as significant as typically predicted.

—EMILY ROSS, COMMUNICATIONS

Speaking Japanese



At the end of February, seven Imperial students took part in the fifth All UK Japanese Speech Contest for University Students, competing against students from over 20 other universities. Second year student William Kwangwon Kim (Electrical and Electronic Engineering), who won first prize, describes his experience:

“I decided to take Japanese this year as an optional humanities course, as I studied the language for two years at high school. My Korean background

helped me a lot when I first took up Japanese, as many expressions have a similar structure and many words come from the same root.

In January, I came across this competition organised by the Japan Foundation. With support from my teachers, and after an essay assessment and a phone interview, I was chosen to compete at the finals at SOAS. My speech was entitled *Patent and its side effect* and I spoke about the contradictory side of the patent law that hinders technological advancement. On the day, I

thought that the topic could be too serious for the audience in front of me and, because other competitors presented their speeches with such style and confidence (including two from Imperial), it really came as a surprise when I was announced as the winner. Later I found out that the judges gave extra credit for the topic and content of my speech, which I think was because the contest was sponsored by Japanese technology firms, including Toshiba and Mitsubishi Electronics.

Second place went to Antony Chow (Electrical and Electronic Engineering), who spoke on the topic *Shinto* [an ancient Japanese religion] and me.

Other than the speech itself, I really enjoyed speaking to the people from Japan and other students studying Japanese from universities around the UK.”

► SCIENCE FROM SCRATCH

As explained by Hala Elhaj, MSc Science Communication

Chimera

A chimera in genetics is an organism which carries more than one set of DNA. A chimera can be naturally born, artificially made, or can even be someone who has had an organ transplant. The word chimera originates from the Greek *khimaira*: a mythical fire-breathing animal with a lion's head, a goat's body and a serpent's tail. Chimeras develop from the fusion of two fertilised eggs that, instead of developing into non-identical twins, fuse to make one embryo. This can result in different organs carrying different DNA sets. Some characteristics can indicate the presence of genetically distinct cells, for example, differing eye colours; however, it is not possible to predict the number of chimeras in the world as in most cases the condition doesn't affect one's quality of life and will only be discovered through DNA analysis. In the case of the chimeric woman, Lydia Fairchild, a routine DNA test indicated she was not the birth mother of her children, leaving her battling in court to keep custody until further testing showed she was carrying two different sets of DNA.



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

Student blogger Jaimie on going multimedia:

blog SPOT



“What did you say? You want me to talk about all the various media outlets I’m plugging? If you insist...Why not join my facebook page? I admit that it serves absolutely no purpose whatsoever except to massage my ego by looking at how many people have clicked the ‘Like’ button, but I’m sure it’s the least you could do. Also keep a look out for me in this week’s *Felix* (which should be lying on a floor near you), which contains a slightly vitriolic look at these televised electoral debates. It’s not up online yet, but you can bet your bottom dollar I’ll tell you when it is.”



www.imperial.ac.uk/campus_life/studentblogs

I’m a scientist, get me out of here!

Professor Sian Harding (NHLI), Dr Paula Salgado and Professor Stephen Curry (both Life Sciences) have been selected to participate in *I’m a scientist, get me out of here!* – a public engagement event in the style of reality TV which begins on 14 June. Stephen reports:

“For two weeks we will join 97 other scientists from around the UK in answering questions thrown at us from classes of school children who will be participating online. In the second week, the scientists will be split into 20 ‘zones’ according to our scientific specialisms, and within each group we will compete to win the students’ approval. My zone will be imaging, Sian’s will be genes and Paula’s zone will be aluminum. Day by day the students will vote for their favorite scientist in each zone and the one with the fewest votes gets kicked out. In each zone, the scientist left standing at the end of the week wins £500 to spend on a science communication project.

The students take the process very seriously,

“Putting power in the hands of the students is key to getting them enthused about science”



School children pose questions to scientists about their subjects on one of the 20 topic zones.

weighing up the scientists on the quality of their answers and their perceptions of the value of the scientists’ research. It may be brutal, but putting this power in the hands of the students is key to getting them enthused about science.”

Follow the action at: www.imascientist.org.uk

Science, spirituality and art



Kate Keara Pelen has been the artist in residence at the College’s Chaplaincy Centre in Beit Quad on the South Kensington

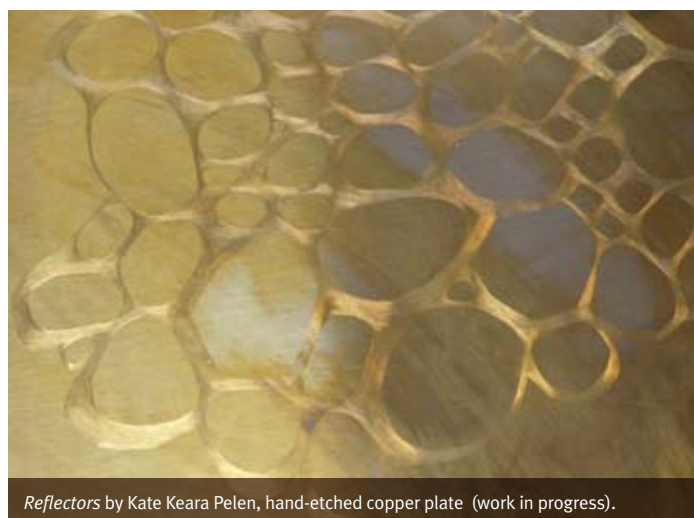
Campus since early April. Kate was commissioned to create a piece of artwork for the Prayer Room which reflected Imperial’s scientific and research excellence, was inclusive of the different faiths and philosophical traditions of the students and staff at Imperial, and captured the mood and ethos of the Chaplaincy. Kate describes her experience:

“During my two months at Imperial I have been fortunate enough to meet with a number of scientists including chemist Dr Paul Lickiss,

malaria researchers Michael Povelones and Sarah Sebastian, material scientist Soumaya Mauthoor, mineralogist Patricia Doyle and undergraduate medic Zobia Gundkalli. I’ve photographed their labs and working environments, experiments and equipment and had the opportunity to discuss their research – in layman’s terms of course! In addition I have met users of the prayer room from all different faith backgrounds.

The piece I have been working on for the Prayer Room, *Reflectors*, is a series of three etched circular copper plates. *Reflectors* came about through a very experimental process, negotiating between the languages, processes and materials involved in

“I’ve photographed their labs and working environments, experiments and equipment”



Reflectors by Kate Keara Pelen, hand-etched copper plate (work in progress).

spiritual and scientific practices. I have found surprisingly common threads running through both: for example repetition, discipline, perseverance, routine and pattern.”

Reflectors will be unveiled at Kate’s exhibition which opens on 10 June in the Chaplaincy. Drop in anytime between 18.00-21.00 to see the work and meet Kate. Kate’s residency blog: katekearapelen.wordpress.com



Dr Richard Murphy, Reader in Plant Science (Life Sciences), on how brown rot fungi holds the key to a more environmentally friendly biofuel.

What have you developed?

Wood is a very tough material which we use for building and many other hard-wearing applications, but given its high carbohydrate content, it's also an excellent potential candidate for biofuel feedstock if that carbohydrate can be accessed. The innovation behind our spin-out company, Mycologix, is a pre-treatment process for woody biomass that uses brown rot fungi to break down the tough structure and release the useful carbohydrate content, which can be up to 75 per cent of the total mass. This is then used to produce the biofuels.

INVENTOR'S CORNER Tree-mendous!

How did it feel when you realised the potential of this technology?

When the first results came back, establishing that brown rot fungi could be used to release sugars from lignocelluloses, it was something of a 'eureka' moment. I expect that seeing the first commercial Mycologix pre-treatment plant will be just as exciting.

"Mycologix's pre-treatment process is energy-saving, cost-effective and provides an environmental saving"

Why does the world need your invention?

Current biofuel production methods aren't competitive with gasoline or some first generation bioethanol products, such as those derived

from sugar cane or sugar beet, since they, along with current processes used to access the sugars in woody biomass, are inefficient and expensive. Mycologix's pre-treatment process is energy-saving, cost-effective and provides an environmental saving – the carbon footprint of biofuels produced by Mycologix is lower compared with conventional biofuel processes.

How did this technology go from the lab to forming a spin-out?

The experience of the team at Imperial Innovations and of Mycologix's CEO, clean technology entrepreneur Nick Brooks, has been invaluable in advancing the business. Drs Michael Ray, David Leak and Pietro Spanu from the Department of Biology and Professor Nilay Shah from the Department of Chemical Engineering and Chemical Technology helped by bringing insights from other applied biotechnologies and developing process systems models for Mycologix.

—GAVIN REED, IMPERIAL INNOVATIONS

www.imperialinnovations.co.uk

course review



By course attendee Ben Latham, Senior Executive – Individual Giving (Alumni and Development)

Managing your Imperial College Event

1 Why did you go on the course?

I was keen to learn how to improve upon the events I manage at Imperial, such as the Legacy Lunch – a fundraising event where prospective donors are invited to 170 Queen's Gate to have lunch with the Rector. Even though the event is well-established (now in its fifth year), I thought I might glean some nuggets of information that might add to the overall success of the event.

2 What did you learn?

The course offered a useful overview of the various stages involved in planning and executing a successful internal event and I was provided with some useful contacts. I was also very impressed to discover that the Communications Division's Events team is available to offer advice and support whatever the size, scope or theme of your event.

3 Would you recommend the course?

I would definitely recommend the course to anybody who coordinates internal events, particularly those who are starting off in this area, as the workshop provides a comprehensive overview of all the stages involved. Also, take the time to speak to fellow attendees about the events they run. It's a good way of sharing best practice and learning more about the College as a whole.

My life in film

Colin Grimshaw, Digital Media Producer (Communications), has worked at Imperial for 45 years and has made hundreds of audio and video recordings which capture key moments in the College's history. Colin describes his video archive blog, set up to share buried treasures from the video archive, and his latest post on Imperial's Nobel laureates:

"Back in the 1960s, I was one of the few staff members at Imperial to have access to videotape recording, which at the time was not only very new, but something most people had never actually seen working. The College's videotape collection, which starts around 1970, is now being showcased in my blog. I'm slowly

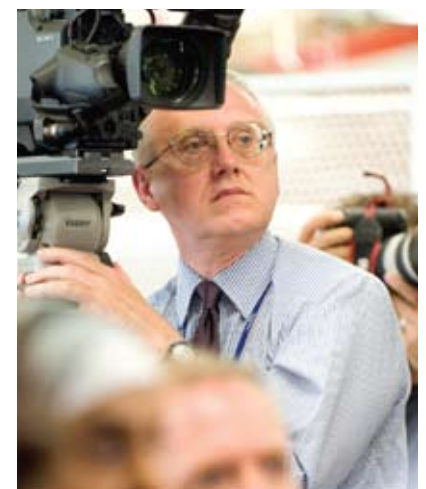
"I'm slowly rediscovering events and College history long since forgotten"

rediscovering events and College history long since forgotten, such as Morphy Day at Putney or the Linstead Hall evening dinner.

"My most recent blog entry is based on recordings of three of our past Nobel laureates – Professor Dennis Gabor, Professor Sir Geoffrey Wilkinson and Professor Lord George Porter, who I've been lucky enough

to meet. I particularly remember Professor Gabor, who I met on his way out of our TV studio. He spoke to me about the TV we had. He said: "Ah, you have a Sony colour television," to which my reply was along the lines of commenting that the Japanese were very clever with their technology. He put his hand on my shoulder and told me that the principle that made

it work (the TV's single electron gun cathode ray tube) was something that he had proposed, but for which research funding could not be found at the time. So the



idea went to Japan and has been used in those Sony televisions!"

To watch some of Colin's favourite videos visit: www.imperial.ac.uk/blog/videoarchive

obituaries



SHARINE BROWN

Sharine Brown, Head of Accommodation Services, died on 26 April 2010 after a short illness. Monika Sexton and Mickie Turner-Goble, on behalf of the Accommodation Services team, pay tribute to their friend and colleague:

“Sharine was born on 18 August 1950 in London and, after working for 15 years in the NHS, she joined Imperial in 1988 as the senior housekeeper of the old Linstead Hall. In 1996 Sharine was promoted to Head of Residences (Residences later became Accommodation Services).

Working at Imperial was more than a job to Sharine – she had a very ‘hands on’ approach. Even if she had to work all night to get things done, for example, when she helped prepare the newly refurbished Southside for the students’ arrival in the morning, Sharine would be there always thinking of the students’ needs. Her attention to detail was second to none and this, coupled with her outspokenness, meant standards in Accommodation Services never slipped.

Sharine was a tiny lady with a huge personality. She was a passionate West Ham supporter, loved gory films, nice china and listening to David Bowie.

Sharine was awarded an Associateship of Imperial College London by the Council for her exceptional service in November 2009, which will be posthumously conferred at the Commemoration Day ceremony this October. The team Sharine built over the last 22 years will continue her good work in her memory. She is survived by her parents, brother and sister, numerous nieces and nephews, great-nieces and nephews, and many friends.”

Please share your memories of Sharine: www3.imperial.ac.uk/news/sharinebrown

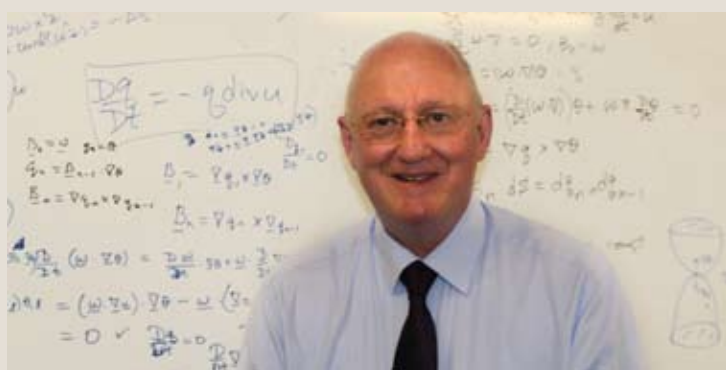
long
service

Reporter shares the stories of staff who have given many years of service to the College.

—AMNA SIDDIQ, COMMUNICATIONS

SPOTLIGHT

Professor John Gibbon, Dean of the Faculty of Natural Sciences 30 years



John Gibbon joined the Department of Mathematics as a lecturer in September 1980 from a similar position at University College Dublin, following a number of postdoctoral positions in the UK and Italy. He was originally a mathematical physics undergraduate at the University of Birmingham and a postgraduate in mathematics at UMIST. His research in recent years has concentrated on the mathematics of fluid turbulence. He was promoted to Reader in 1985 and to Professor of Applied Mathematics in 1990. In the last three years, he has been Dean of the Faculty of Natural Sciences. John says: “Serving as a Dean has been the most interesting experience of my time here. Many academics rarely stray out of their own group but, as a Dean, I have served on myriad appointments and promotions committees across the College. This has given me a rare glimpse into the amazing range, depth and quality of work at Imperial”.

Students debate it out on the Allergy MSc



Last month, 28 students on the MSc in Allergy (pictured above) participated in a heated debate on the following topic: *The Cochrane Review was correct in its conclusion that house dust mite avoidance is unhelpful in the management of allergic conditions such as asthma.* Cochrane Reviews look at aspects of medical management and form conclusions based on the best available studies. Course leader Dr Jill Warner (Medicine) judged that the group against the motion won. Two students share their experiences of preparing for the debate and the event itself.

FOR

Dr Virginia Hill, a consultant dermatologist, represented the group for the motion.

“It was the first time I’d taken part in a formal debate and I really enjoyed the chance to use the online e-learning tool *Blackboard* to develop our argument. Both teams were given designated space on *Blackboard*, which the other group couldn’t see. Our group read a number of relevant reports and papers, and reviewed and summarised them on *Blackboard* – which fed into a PowerPoint presentation we also compiled on *Blackboard*. After all the hard work, it was great to hear both sides present and take part in the discussions which followed – it became very heated! The debate encouraged us to do a lot of research around the subject, so it was of great educational value.”

AGAINST

Dr Caroline Markus, a general practitioner, debated against the motion.

“As many of the students on the MSc live outside London or abroad, it was really helpful to be able to prepare and develop our case online. We all read over 54 papers on asthma and seven on allergic rhinitis – an allergic reaction of the nasal airways – plus many other references and concluded that many of the trials that formed part of the Cochrane Review’s evidence were too small. On the day, we enjoyed criticising the original data and were delighted to win the motion that house dust mite avoidance does help manage allergic conditions.”

Lens of life

On 12 May, Kevin Brown, curator of the Alexander Fleming Laboratory Museum at St Mary's Campus, gave a lecture at the Hunterian Museum exploring why it took almost 20 years, from his first nomination, for Sir Alexander Fleming to finally become a Fellow of the Royal Society. Kevin offers an overview of Fleming's character and interests:

"Fleming, a clear writer of scientific papers, was a notoriously bad public speaker and failed to convey to his peers the excitement and importance of his work. He could also be mistaken for a dilettante in science through his love of playing with microbes and his production of novelties, such as germ paintings made using different pigmented bacteria to colour his sketches. Yet it was this imaginative approach to science and his unusual way of looking at things, that made him receptive to natural phenomena and were an essential part of his scientific genius. Having a hinterland of other interests may also have made him a better scientist because he was a more rounded man, though very reserved and not someone to show his feelings easily. The only sign that he had felt any unhappiness at his repeated failure to be elected FRS was his comment on finally being honoured: 'Would you ever have thought such a thing possible?' I took this as the title of my lecture."



Sir Alexander Fleming, who discovered penicillin at St Mary's Campus in 1928.

For more on Kevin's lecture visit: www.imperial.ac.uk/blog/reporter

Welcome new starters

Miss Jessica Adams, Business School
Miss Salma Ali, EYEC
Miss Maria Arenas Carmona, Accommodation
Miss Kim Blake, Library
Dr Angus Creech, Earth Science and Engineering
Miss Lorna Culverwell, Biology
Ms Michelle Galloway, Medicine
Dr Laura Garcia Alvarez, Medicine
Dr Carolyn Goh, Bioengineering
Mr Djamel Hamadache, Medicine
Dr Paul Kirkham, NHLI
Miss Rosica Lecheva, Catering
Miss Jing Jing Liu, Materials
Dr Sridevi Nagarajan, Medicine
Mr Keng Ng, NHLI
Miss Susana Ochoa Rodriguez, Civil and Environmental Engineering
Dr Brijesh Patel, Surgery and Cancer
Dr Yatish Patel, Mechanical Engineering
Dr Samadhan Patil, Materials
Ms Laura Penny, Medicine
Dr Angharad Roberts, Clinical Sciences
Miss Alexandra Schoeb, Surgery and Cancer
Dr Sibdas Singha Mahapatra, Chemical Engineering

Mr Radim Skapa, Civil and Environmental Engineering
Mrs Blagica Stojceska, EYEC
Dr David Vega Maza, Chemical Engineering
Dr Maria Vigliotti, Computing
Mr Zhiqiang Zhang, Computing

Farewell moving on

Mrs Anshu Bansal, EEE
Mr Dathan Birrell, ICT (11 years)
Mr Fernando Brandao, Physics
Dr Adrien Breiman, Medicine
Mr James Dodsworth, Accommodation
Miss Steph Guest, Surgery and Cancer
Dr Yun Hou, EEE
Dr Mohamed Jaward, EEE
Dr Tiejun Ma, Computing
Mrs Yumi Moon, Biology
Dr Gareth Morgan, Medicine (11 years)
Miss Tatiana Munera Huertas, Medicine (5 years)
Mr Simon Taylor, Security (7 years)
Mrs Catherine Taylor, EYEC
Dr Iasonas Triantis, Biomedical Engineering
Mr Vijay Vaja, Medicine

retirements

Dr Douglas Newton, Surgery and Cancer (18 years)

This data is supplied by HR and covers the period 4–17 May. It was correct at the time of going to press. Years of service are given where an individual has been a member of College staff for over five years. Asterisk (*) indicates where an individual will continue to play an active role in College life.

✉ 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.

Speak out

Story ideas?

We welcome contributions from across the College. The next publication day is 1 July. *Reporter* is published every three weeks during term time in print and online at www.imperial.ac.uk/reporter

Contact Emily Ross:

✉ reporter@imperial.ac.uk
☎ +44 (0)20 7594 6715

moving in. moving on.

Inside the World Health Organisation

In February a group of eight postgraduate students from the Faculty of Medicine made a trip to the World Health Organisation (WHO) headquarters in Geneva, Switzerland, as part of the Health Systems Development course taught by the WHO Collaborative Centre based at Charing Cross Campus. One of the students, Ruben Gennero, reports on his experience:

"One of the best things about being a postgraduate student at Imperial is working in an international research environment and this year we got the amazing opportunity to go to the WHO headquarters. During our time in Geneva we met with several WHO staff members, including Mohamed Abdi Jama, the Assistant Director, who is

responsible for general management, and Ala Alwan, the Assistant Director, who looks after non-communicable diseases and mental health. Both are important members of the organisation and specialise in international health.

Dr Jama explained the pros and cons of being the general manager of one of the most important agencies of the United Nations, and his team described the main developments in the administrative and accountability functions in the WHO.

Dr Alwan, who has vast experience in public health and medicine, described the current epidemiological situation in the world, overthrowing myths such as the belief that non-communicable diseases only have an impact in the developed



world. He believes that the next generation of public health practitioners, like us, faces a situation where non-contagious diseases, such as those caused by smoking, obesity and modern society's sedentary lifestyle, will dominate the world, with devastating effects in developing countries.

We also met with representatives from the Health Action in Crisis cluster, who explained the importance of preparing communities to respond to national emergencies and natural disasters. In general, it takes two or three days for international teams to respond to an emergency of this kind."

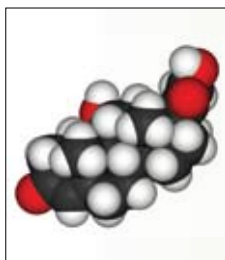


20 JUNE ▶ MUSIC AND ART

Exhibition Road Music Day

Now in its sixth year, this one-day event on midsummer's eve showcases a wide range of live music acts from folk to electronica, funk to grime, and classical to world at some of London's most renowned cultural institutions – Imperial,

the Science Museum, Natural History Museum and Royal Albert Hall. Imperial highlights include an all-male vocal group, the Techtonics, who came second in Imperial Idol in summer 2009, the Percussion Club featuring elements of percussion, dance and musical theatre and Capoeira – a martial art developed by African slaves in Brazil during the sixteenth century.



30 JUNE ▶ ANNUAL ATHENA LECTURE

No escape from stress

The protective mechanisms which enable organisms to cope with adverse situations – i.e. stress – have fascinated scientists for many years. These mechanisms are critical to health and disturbances in them are now thought to

contribute to the aetiology of many diseases, which are endemic in the western world, for example hypertension, type 2 diabetes, infertility and depression. The stress hormone, cortisol, has a particularly important role in this regard. The lecture will explore the mechanisms that regulate its secretion and illustrate the potential consequences of cortisol imbalance.

16-18 JUNE ▶ DRUID SUMMER CONFERENCE

Opening up Innovation

World-leading technology, innovation and strategy forum



16 JUNE ▶ EMMANUELLE CARON LECTURE

From commensals to pathogens, the Yin and Yang of innate immunity

Professor Philippe Sansonetti, Collège de France, Institut Pasteur, Paris

17 JUNE ▶ DENNIS ANDERSON SYMPOSIUM

Issues in energy

Lord Stern, leader of the government's 2006 climate change review, and Dr Will Cavendish, Director General of International Affairs, DECC



17 JUNE ▶ ANNUAL SCIENTIFIC RESEARCH MEETING

A year in the work of the Centre for Infection Prevention and Management

Wolfson Conference Centre, Hammersmith

17 JUNE ▶ CONFERENCE

First annual one-day conference for Junior Research Fellows

Introduced by Professor Maggie Dallman, Principal, Faculty of Natural Sciences

18 JUNE ▶ BRITISH HEART FOUNDATION CENTRE SYMPOSIUM

Vascular Biology and Arterial Inflammation

Keynote speaker – Professor Bruce McManus, University of British Columbia



18 JUNE ▶ MATHEMATICS COLLOQUIUM

The decay of Fourier modes in solutions of the Navier-Stokes system

Professor Yakov Sinai, Princeton University

18 JUNE ▶ LECTURE

Optimal methods for discovery in mass spectrometry-based proteomics

Dr Peter DiMaggio Jr, Princeton University

20 JUNE ▶ MUSIC AND ART

Exhibition Road Music Day

Day of free live music events

21 JUNE ▶ BIOINFORMATICS SEMINAR SERIES

Systems analysis of arabidopsis lateral root development: an emerging story...

Professor Malcolm Bennett, University of Nottingham

22 JUNE ▶ LUNCHTIME CONCERT

Beethoven String Quartet in F minor, Op 95; Webern Langsamer Satz

Tippett Quartet

30 JUNE ▶ ANNUAL ATHENA LECTURE

No escape from stress

Professor Julia Buckingham, Pro Rector (Education) and Head of the Centre for Integrative Mammalian Physiology and Pharmacology

5 JULY ▶ MEDICAL WRITING EVENT

An insight into medical writing as a career

Postdoc Development Centre in collaboration with Network Pharma



take note

London Cycle Challenge

Organised by Transport for London to encourage more people to get on their bikes throughout June, the London Cycle Challenge is open to all. Staff are invited to join the Imperial team and log their miles, whether clocked up to and from work, or at any time. The collective total miles will qualify the team for prizes. To join, visit <https://cyclechallenge.tfl.gov.uk/> and search for 'Imperial College London' in the 'Find a Team' search bar.



VOLUNTEERING

Join a documentary crew

Project ID: 2338
 Organisation: WORLDwrite
 Time(s): not yet specified
 Location: E5 (nearest tube Homerton)

The charity WORLDwrite is offering a unique opportunity for volunteers to join a documentary crew to help plan and shoot short films and programmes about the suffragettes – the women who fought for, and won, the right to for women to vote. There will be regular crew meetings to plan films, discuss future scripts, conduct historical research, and reconstruct suffragette scenes. Free film training is available for volunteers who get involved. WORLDwrite is a UK-based charity with a remit to develop and provide educational projects and programmes which promote international understanding.



For more information

To take part in a scheme or to hear more about volunteering in general, contact Marco Benozzi:

☎ 020 7594 8141
 ✉ volunteering@imperial.ac.uk

For full details of over 250 volunteering opportunities please visit:

www.imperial.ac.uk/volunteering

✉ Subscribe to the weekly newsletter by emailing volunteering@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

