

Our new campus

Imperial West: a once in a generation opportunity

... **CENTRE PAGES**



SUPERSTAR SCIENTISTS

PhD scholarship scheme now open to top talent worldwide

PAGE 3



PRINCIPAL AIMS

Professor Dermot Kelleher on leading the Faculty of Medicine

PAGE 10



SUPERSTORMS

What exactly are they and why was Sandy so destructive?

PAGE 11



EDITOR'S CORNER

Taking the reins

More than 10 years ago I was offered a conditional place to study biochemistry at Imperial College London. In the event, I turned it down, too apprehensive about coming to the big city as a country boy and not fully appreciating **Imperial's global reputation**. So it's quite strange that I now find myself editing the College newspaper *Reporter*. As a science journalist with a particular interest in **engineering and innovation**, I've already worked alongside Imperial academics and I'm quite familiar with the world class reputation for research that the Imperial badge carries. But working in-house will allow me to get under the surface of the institution. I'm keen to explore how students, researchers and support staff all ultimately contribute to making Imperial the force it is. Just as each part of an aircraft plays its role in keeping the whole thing aloft. And so it's a chance for me to share stories about **exceptional people and projects** that have so far remained under the radar. I hope many of you will get in touch.

ANDREW CZYZEWSKI,
ACTING STAFF EDITOR

Reporter is published every three weeks during term time in print and online. The next publication day is 13 December. Contact Andrew Czyzewski: reporter@imperial.ac.uk

Autumn telethon under way

The autumn telephone fundraising appeal for the Rector's Scholarship Fund kicked off on 29 October.

President & Rector Sir Keith O'Nions visited the call room on 13 November as pledges from alumni donors edged the appeal over the £100,000 mark.

Congratulating the callers, Sir Keith said he admired the generosity they showed in bringing the next generation of excellent students to the College.

Student callers update alumni with news and events at the College, as well as asking them to make a gift to the Rector's Scholarship Fund.

For the first time, calling is taking place in the Alumni Office which increases capacity to 20 callers per shift for a total of six weeks. Students from all subjects and levels of study are taking part, calling alumni in the UK, Europe, USA and South Africa.

Caller Claire Brash, a second year medical student,



explained how positively alumni had reacted to her as a scholarship recipient, and how keen many had been to share careers advice and professional expertise.

—ELIZABETH ATKIN, COMMUNICATIONS AND DEVELOPMENT

If you'd like to visit the telethon and meet the student callers, contact Elizabeth Atkin on e.atkin@imperial.ac.uk

Thai PM visits Imperial with message for student scholars

The Prime Minister of Thailand, Ms Yingluck Shinawatra, visited the College on 13 November, addressing Thai students and representatives of the Thai media.

Many of those in the audience were Imperial students supported by Thai government scholarships.

The purpose of the official state visit to the UK was to strengthen relationships between Thailand and the UK, and foster collaborations in trade, technology and academia.

Imperial already has institutional links with Chulalongkorn University, King Mongkut's Institute of Technology Ladkrabang, and the National Science and Technology Development Agency of Thailand.

Around 195 Thai students, both undergraduate and postgraduate, enrolled to study at Imperial in 2011–12. Around 70 students receive scholarships from the Thai government each year.

Pongsathorn Dechatiwongse (Chemical Engineering), who is working



towards a PhD in Energy Engineering, attended the prime ministerial address on Tuesday.

"The PM emphasised the importance of our generation as the major driver for national development and encouraged every student to be part of this – no matter if they are on a scholarship or are privately funded," he said.

Talking about his own experiences at Imperial, Pongsathorn went on: "Within the next two years, I would like to see myself achieving a doctoral degree from the College and then start my academic career in Thailand.

"Being a scholarship student, I am very grateful for the opportunity which has been given to me, and am looking forward to using my potential for the national benefit of Thailand."

IMPERIAL

FRINGE

cutting close to the

BONE

• FREE + OPEN TO ALL •

From stem cells and osteoporosis to density and strength, our bones are as complex as they are mysterious. With demonstrations, drinks and a special debate, meet those at the forefront of bone research for a lighthearted evening of discovery. A pay bar will be open throughout.

THURSDAY 29 NOVEMBER
17.30–21.00

❖ ❖ ❖

Main Entrance, South Kensington Campus

www.imperial.ac.uk/festival/fringe

Worldwide hunt for science stars of the future



In mid-November the College launched a worldwide search for the brightest and best students to take up 50 prestigious new PhD scholarships.

The new Imperial College London PhD Scholarship scheme will provide highly competitive opportunities for talented students with the ability, commitment and creativity to join the College's research community, working alongside internationally renowned scientists.

The scholarships are available to students with the passion and aptitude to work in one of the College's research areas in science, engineering, medicine or business. Including fully funded fees and a £20,000 per annum stipend, they are open to Home, EU and international applicants.

The scheme forms part of more than 1,000 new postgraduate research opportunities available at the College every year and has been partly funded by the generosity of Imperial College alumni.

President & Rector, Sir Keith O'Nions, said: "At Imperial we have some of the most talented researchers and students from across the globe working in world class facilities. If you have the curiosity and drive to make a real impact through your research, we invite you to join our community."

As well as support from their host departments, students will have access to the College's award-winning Graduate School, which works with postgraduate students on their professional development, both within their research programmes and for their future careers.

The scheme is now open for applications, with candidates required to have agreed a research project with a supervisor in an Imperial department in advance. Full details of how to apply can be found here: <http://bit.ly/UCqdP6>

— JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

New centre will offer 'precision medicine' to patients

A new research centre on the St Mary's Campus has been established to help doctors diagnose illness more efficiently and choose the best treatments based on a patient's individual characteristics.



The Imperial Clinical Phenome Centre brings state-of-the-art laboratory technologies into the hospital setting. The data it gathers on patients' metabolic and physiological characteristics will inform treatment and also enhance clinical trials of new therapies.

The term 'phenome' describes the individual products of a person's genetic profile and their lifestyle habits and environment.

Professor Jeremy Nicholson, Head of the Department of Surgery and Cancer, said the announcement of the new Centre represented "the dawn of a new age of 'precision medicine'".

Meanwhile, Professor Lord Darzi, Head of the Division of Surgery, said: "As a surgeon, I'm tremendously excited by the potential to provide real-time diagnostic information in the operating theatre. Last year we brought the first solid state NMR (nuclear magnetic resonance) spectrometer into the hospital at St Mary's and we have already begun using it to analyse tissue samples from surgical patients to tremendous effect."

The Centre is jointly funded by the National Institute for Health Research (NIHR) Imperial Biomedical Research Centre and industrial partners including the Waters Corporation and Bruker Spectrospin GmbH. It will be equipped with three NMR spectrometers and six mass spectrometers, plus a new research team.

This is the second phenotyping research centre to be established at Imperial this year, and both are the first of their type in the world. This new Centre will be closely linked with the MRC-NIHR Phenome Centre, a collaboration between Imperial and King's College London, which is more focused on population screening and is due to open in early 2013 at the Hammersmith Campus.

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT

in brief



Imperial judges car contest

Low emission vehicles converged on the College on 3 November as part of one of the UK's premier car challenges. The Royal Automobile Club's Annual Future Car Challenge sees low emission vehicles travel a 63-mile route from Brighton to Imperial using the least amount of energy possible. This year an Imperial team carried out a technical analysis on each vehicle to determine the winner.

Research commercialisation funding

Imperial has received £6 million from the Engineering and Physical Sciences Research Council, as part of a nationwide scheme to increase the conversion rate of research into potential commercial ventures and enable new partnerships with industry. The College received the largest Impact Acceleration Account (IAA) award, which sees 31 universities sharing a total investment of £60 million. The IAA will fund a range of activities including secondments for both scientists and business people to spend time in each others' environments.

Royal invitation for apprentice supervisors

Workshop supervisors from the College were invited to a National Apprenticeships Service event at Buckingham Palace hosted by the Duke of York last month. Paul Brown (Physics), Russell Stracey (Materials) and Graeme Rae (Bioengineering) represented the College's technician apprenticeship scheme – a four-year training programme for engineers that combines on-the-job training with academic study – which they helped set up.

“We want the light to do a kind of chicane, like a skier going round a tree, but after it's done this chicane it should continue on the same path as it started on.”

PROFESSOR SIR JOHN PENDRY (PHYSICS) EXPLAINS THE PRINCIPLE OF A CLOAKING DEVICE AT THE 2012 SCHRÖDINGER LECTURE ON 6 NOVEMBER. WATCH THE VIDEO AT: <http://bit.ly/RyBWdU>

Student bloggers chosen for new academic year

The blogosphere will have some new and interesting voices this month, as our latest group of student bloggers look for inspiration for their first posts.

Now in its fourth year, the blogs collective aims are to give an insight into what life is really like at Imperial – whether that's being thrown around at Judo Club, trying new foods or wandering round London taking random photos. There will be nine students blogging for the first time, while three students have decided to carry on from previous years.

Reporter caught up with a couple of the bloggers and asked them why they wanted to share their musings with the world, what they hoped to get from it and what we might expect from their posts.

Bernadeta (second year, BSc Microbiology) – pictured right:

"I just feel like I sometimes have something to say and I like the idea that you can share things with other people. I'm sort of a knowledge freak, and I feel the day is wasted if you don't find out anything new, so I'm going to do something like a fact of the day."

Fi (second year, MBBS)

"I've been writing for years; I did a gap year in Israel teaching underprivileged children and set up an English-speaking newspaper, so it seemed a natural thing to do. Some of my friends do some really interesting things, like ice skating at 04.00 in the morning, so I'd like to do a day-in-the-life type thing."



Singapore-Imperial links set gold standard



Imperial's commitment to developing partnerships with Singapore was praised by the British High Commissioner for the city state, His Excellency Antony Phillipson, during an event at his residence on 5 November.

Addressing 110 guests of the College, including Singaporean alumni and staff from the Lee Kong Chian School of Medicine, he said: "Imperial has set the gold standard in building strong collaborations here over many years".

The High Commissioner was speaking at a reception also hosted by the President & Rector, Sir Keith O'Nions, and the Imperial College Alumni Association of Singapore. Professor Martyn Partridge, Senior Vice Dean of LKC Medicine, opened the evening with a briefing on the vision for Singapore's newest medical school, which is a partnership between Imperial and Nanyang Technological University. With less than nine months until the first cohort arrives in August 2013, Professor Partridge set out the process underway to select the brightest students and described the School's innovative curriculum.

The event formed part of celebrations in 2012 for the 35th anniversary of the Alumni Association of Singapore. There are over 2,000 Imperial alumni in Singapore and Sir Keith thanked them for being among the College's greatest ambassadors.

—CAROLINE DAVIS, COMMUNICATIONS AND DEVELOPMENT

College welcomes latest Junior Research Fellows

A new group of Imperial scientists has been welcomed onto the popular Junior Research Fellowship (JRF) scheme, which is now in its fourth intake.

This year's 21 new JRFs are working in diverse areas that include neurodegenerative disorders, the biodiversity of dinosaurs, neglected tropical diseases and quantum mechanics.

Set up in 2009, the scheme aims to help early-career researchers transition from postdoc to independent investigator by providing them with a competitive salary for three years, and by encouraging them to build their research careers without any obligatory teaching or administrative duties.

Champion of the scheme and Principal of the Faculty of Natural Sciences, Professor Maggie Dallman, said: "It was my dream to create a new community of the brightest and best at College and give them the freedom to focus on their research. It is very rewarding to see this come to fruition."

Ten of the original class of 2009 have gone on to hold lectureships and one is enjoying a five-year fellowship. Many of them have also won international awards from bodies such as the Royal Society.



Dr Susannah Maidment (Earth Science and Engineering): "Becoming a JRF will allow me to focus more heavily on my research and take it in a more independent direction."

media mentions

—CHER THORNHILL, COMMUNICATIONS AND DEVELOPMENT

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New tech gives business schools the edge

FINANCIAL TIMES ▶ 6.11.2012



Some business schools have been wary of emerging technologies in the past but it appears that the tables may be turning, the *Financial Times* reported. Imperial's Business School has introduced technology to its on-campus Master's programmes to provide a 'seamless learning' environment. Students are linked to faculty, key materials and other students in an online portal akin to social media. David Lefevre, Director of the Educational Technology Unit (Business School) says: "Schools like ours have been held back by earlier virtual learning environments that have not encouraged successful student interaction. By putting infrastructure in place that reflects how students interact, we can help them learn more and faster."

Gene therapy milestone

THE WALL STREET JOURNAL ASIA ▶ 6.11.2012

The first drug to provide gene therapy – a way of delivering a functioning gene in place of a faulty version – has been approved by the European Union, reported *The Wall Street Journal Asia*. The approval of the expensive drug is the first time that either the EU or the USA has licensed such a treatment. Dr Uta Griesenbach (NHLI) notes that scientists have long hoped that gene therapy would revolutionise treatment for cystic fibrosis, but development has since hit obstacles. This summer, Dr Griesenbach and colleagues began the largest study to date of gene therapy for cystic fibrosis, when they enrolled 130 patients with the disease.

Debating energy policy

THE INDEPENDENT ▶ 31.10.2012

The Prime Minister, David Cameron, has stressed that the energy policy of the government is unchanged but admits that wind farm development could be brought to a standstill after projects already planned are completed, it is reported in *The Independent*. However, Philip Heptonstall (Centre for Environmental Policy) said this course of action might be a mistake: "The evidence shows that onshore wind in the UK is amongst the lowest cost per unit of electricity produced from the available suite of low-carbon power generation options. It follows that preventing the construction of appropriately

sited onshore wind farms will make consumers' bills higher than they would otherwise be."

Subway tunnels stand up to Sandy

NEW SCIENTIST ▶ 30.10.2012

When the winds of 'superstorm' Sandy (see *Science from Scratch*, p11) peaked at 145 kmph in Long Island, New York, they damaged infrastructure and systems, *New Scientist* reported. The New York subway was feared to be at threat from water which might overload the pumping system that removes 50,000 cubic metres of seawater each day. However, Professor Nick Buenfeld (Civil and Environmental Engineering) said that structural problems are unlikely to be caused by flooding because tunnels are designed to withstand the weight of the ground above. "If you fill the tunnel with water you are pressing back against the external pressure," he said. "You could argue structurally it is in a better state when it is full of water."

awards and honours

MEDICINE

Academics recognised as top 'Women in the City'

Professors Lesley Regan and Jenny Higham (both Medicine) were both shortlisted for the Woman of Achievement Awards on 30 October at the Museum of London, which gathered senior female figures from accountancy, financial services, insurance, legal, medicine and technology. Run by the Women in the City organisation, the award recognises senior women who are actively promoting and encouraging the progress of women.

ENGINEERING

Biotech business brains put to the test

A team of aspiring scientist-entrepreneurs from Imperial will put their business skills to the test when they compete in the finals of Biotechnology YES (Young Entrepreneurs Scheme) in London on 10 December. The team that made it through the initial rounds comprises three Imperial students – Chris Holton, Claire Williams and Lucy Brooks (all Medicine) – and two students from UCL. The scheme aims to raise early stage researchers' awareness of bioscience commercialisation.



MEDICINE AND NATURAL SCIENCES

Students scoop top awards for female graduates

Two Imperial PhD students have won scholarships awarded to female graduates for academic excellence. Lucy Thorne (Medicine), pictured above, and Stephanie Walton (Physics) received two of the nine annual awards from the British Federation of Women Graduates at the University Women's Club, Mayfair on 3 November. Lucy received

£6,000 for her work on the norovirus, known as the 'winter vomiting bug', while Stephanie won £3,000 for her work on nanomagnets.

ENGINEERING

Alumni receive prestigious fellowships

The City and Guilds of London Institute has elected two Imperial alumni and global businessmen as Fellows. Mr Rajive Kaul, President of the Imperial College Alumni Association of India and Chairman of the Nicco Corporation, graduated in metallurgical engineering from Imperial in 1971. Mr Cyrus Pallonji Mistry, who is Deputy Chairman of the Tata Group, graduated in civil engineering in 1990.

Robotic pill could deliver drugs directly to small intestine

A tiny robotic pill that will deliver therapies to hard-to-reach places inside the body is being developed by a team at Imperial's Winston Wong Centre for Bio-Inspired Technology.

When swallowed by a patient, the pill has the potential to deliver drugs to the small intestine, an area that is difficult for doctors to get at and treat.

It could enable chemotherapy to be targeted more precisely to intestinal tumours and adrenaline to be injected locally to help treat ulcers, reducing inflammation and pain.

Currently, hospitals across the UK use robotic pill technology as a diagnostic tool. The team say their pill is an improvement because it can also deliver treatments.

The pill will travel through the body via the contraction and relaxation of muscles in the intestine – a process called peristalsis. It will be equipped with a miniature camera to relay real-time video.

The pill can be stopped remotely when it reaches a tumour or ulcer by lowering a miniature 'anchor' from its casing. A tiny moveable needle can then be



Robotic pill with anchor deployed (left) and retracted (right).

positioned and injected near a tumour or ulcer to deliver drugs, stored inside the casing.

Dr Tim Constantinou (Electrical and Electronic Engineering) says: "The small intestine is a really difficult place for doctors to access using conventional surgical methods, which are often invasive and impact on patient recovery times. We are still a long way off from delivering this technology to the hospital bedside, but we hope it could one day improve outcomes for patients undergoing treatments."

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT

See a video demonstration at: <http://bit.ly/TyN9jE>

Heart disease map of England shows growing social inequality in elderly

There is a widening gap between rich and poor in the number of deaths from heart and circulatory disease among the over 65s, a study of electoral wards in England shows.

Mortality from heart and circulatory disease – the leading cause of death in the UK – declined in most places between 1982 and 2006, but for men and women aged 65 or older, the decline was smaller in the most deprived communities, resulting in a wider gap between rich and poor.

The authors warn that the declining trend in heart disease mortality could be threatened in some areas if the economic downturn and austerity measures affect poor communities disproportionately. Changes in the health system, such as the devolution of public health responsibilities to local authorities, might also put some communities at risk of falling behind, they suggest.



The slide above shows deaths from heart and circulatory disease per 100,000 population, by ward for men aged 65 and over from 1982–86 (left) and 2002–06 (right). Darker colours represent higher mortality rates.

"It's clear that both social conditions and the quality of the health service strongly affect heart disease mortality," said study author Dr Perviz Asaria (Medicine). "The Health and Social Care Act, which allows private companies to provide care under the NHS, and the extraordinary pressure on the NHS to make savings might jeopardise health services, including the crucial role of GPs, in poor communities."

Broadly, the places with the highest death rates were in areas around Manchester and Liverpool, in parts of Yorkshire, around Birmingham and in deprived boroughs of London. Outside of London, death rates were generally low in southern England.

The study is published in the *International Journal of Epidemiology*.

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT



Smokers leave a history of their addiction in their DNA

Smokers are leaving a history of their addiction in their DNA, which may help to measure their risk of cancer, according to research presented at the recent NCR Cancer Conference.

Researchers at Imperial and the Human Genetics Foundation (HuGeF) in Italy found that smoking leaves a footprint on the surface of the DNA but the sequence of genetic code remains the same.

This is known as an "epigenetic" modification. Once you give up smoking, these tags start to disappear although they never quite match the unmarked DNA of a non-smoker.

In this initial study, measuring the level of tagging allowed the researchers to investigate the risk of breast and bowel cancer associated with smoking. They plan to expand the work into other areas such as lung cancer.

Dr James Flanagan (Medicine), Breast Cancer Campaign scientific fellow at Imperial and co-author of the research, said: "Previous research into smoking has often asked people to fill out questionnaires, which have their obvious drawbacks and inaccuracies. Using this approach, we will be able to read the fingerprint on a person's DNA to tell us a story of how their habit may have changed over the course of their life."

Professor Paolo Vineis (Public Health) who also heads the HuGeF laboratory in Italy, said: "We hope that smoking is just the start – further work will look into other factors like alcohol and start to measure the risk an individual has built up over a lifetime of exposure to these contributors to cancer."

—BASED ON A NEWS RELEASE BY CANCER RESEARCH UK

Salmonella's infectious secrets revealed

A new study has identified a way in which *Salmonella* bacteria counteract the defence mechanisms of human cells.

Different strains of *Salmonella* cause gastroenteritis, blood infections and typhoid fever, which together are responsible for millions of human illnesses and deaths each year.

One way in which our cells fight off infections is by engulfing the smaller bacterial cells and then attacking them with toxic enzymes contained in small packets called lysosomes.

The new study, led by Professor David Holden (Medicine), has shown that *Salmonella* protects itself from this attack by depleting the supply of toxic enzymes.

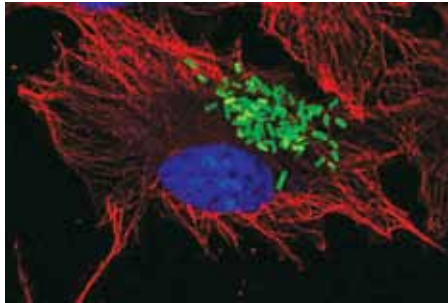
The group discovered that *Salmonella* has developed a specific way to interfere with the system that restocks the lysosomes with enzymes.

This means that *Salmonella* effectively cuts off the supply line of the enzymes that would otherwise kill it. As a result, the enzymes get re-routed out of the cell and the lysosomes lose their potency. *Salmonella* is then able to exploit the disarmed lysosomes by feeding off the nutrients they contain.

Professor Holden said: "This seems to be a very effective way for these harmful bacteria to interfere with our cell's defence mechanisms, and then exploit the defective lysosomes to their own benefit.

"Our challenge now is to understand in greater detail how the injected *Salmonella* protein works at the molecular level, and – potentially – to exploit our findings to develop more effective vaccines. This is especially important since many *Salmonella* strains are now resistant to antibiotics."

—MICHAEL JONES, COMMUNICATIONS AND DEVELOPMENT



Salmonella bacteria (green) inject a protein into cells to counteract their defences

Researchers test solution to fungal disease of ash trees

Researchers at Imperial's Silwood Park Campus are testing a solution that it is hoped can control the *Chalara* fungal disease threatening the UK's 80 million ash trees.



The fungus *Chalara fraxinea*, pictured right on an ash tree,

entered the country via ash saplings imported from the European mainland and it has led to the destruction of an estimated 100,000 diseased saplings and mature trees in the UK in recent weeks.

Environmental company Natural Ecology Mitigation Ltd is working on the solution with the Forestry Commission's Forest Research unit, the International Pesticide Application Research Consortium (IPARC) and Imperial researchers in the Department of Life Sciences.

Laboratory trials show that the product, called CuPC33 (a solution of copper sulphate and other minerals) is highly effective at controlling fungi that cause tree diseases. Greenhouse trials at Silwood Park also show the product does not harm the trees, either when injected or sprayed onto them.

Visiting Professor Simon Leather (Life Sciences), who has been overseeing the field research through Imperial Consultants, said: "We hope to be able to develop a number of ways to apply CuPC33 that will be appropriate to different types of fungal and bacterial diseases and different species of tree. For example, a hand spray formulation of CuPC33 would enable gardeners to treat their ornamental plants and could help to limit the spread of disease."

The consortium is now awaiting the green light from government and investors to carry out further tests in spring 2013, which would then allow this solution to be rolled out to the nation's woodlands.

—SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT

Research investment neglecting certain infectious diseases

UK funding of research into infectious diseases is overlooking some of those with the highest burden of death and disability.

The study, performed by researchers at Imperial, UCL, and the London School of Hygiene and Tropical Medicine, is the first ever detailed analysis of research investments into infectious diseases made by funding organisations to UK institutions.

Focusing on data from 1997 to 2010, the study shows that gastrointestinal infections, antimicrobial

resistance and some neglected tropical diseases receive particularly low levels of investment, relative to the disability and death that they cause.

Professor Rifat Atun (Business School) an author of the paper said that it revealed "unacceptable disparities in research funding for infectious diseases, especially for conditions affecting children and the elderly". He added: "Research

"Research funding from public sources must follow transparent criteria to ensure fairness"

funding from public sources must follow transparent criteria to ensure fairness and alignment with the current and emerging problems faced by the UK and the global community."

Over the study period, non-commercial funders such as the Wellcome Trust and Medical Research Council (MRC) invested £2.6 billion in research into infectious diseases.

The results of the current study found a series of

inconsistencies between investment and disease burden.

For example, gastrointestinal diseases received less than 10 per cent (£254 million) of overall funding, although analysis suggested that they accounted for more than 22 per cent of infectious disease-related deaths. By contrast, HIV, which causes a comparable number of deaths, received almost twice the amount of funding (£460 million or about 18 per cent of the overall amount).

—CHER THORNHILL, COMMUNICATIONS AND DEVELOPMENT



Part of the Research and Translation Hub (centre) with the conference centre in the foreground

Imperial West: a bold vision

It's difficult to picture its potential now. This long-neglected patch of west London – once the BBC's Woodlands site – now an expanse of brownfield land. But it could well be where Imperial's next generation of great minds will come to hone its skills and develop new ideas and technologies. A brand new campus for the College in London.

Last July planning permission was given for Imperial's masterplan to create a new seven-acre mixed-use campus with a postgraduate focus where the BBC buildings once stood.

On looking around, there is some evidence of what is to come. Phase one of the development saw the construction of Wood Lane Studios on the northern section of the site – a complex of over 600 studio apartments for postgraduate students – and the first residents arrived here in September. A modern mix of brick and copper, glass and steel, the buildings are certainly of high quality and finish. Among the many facilities included are a communal lounge, quiet study rooms, private courtyards, a gym and secure cycle storage.

With Wood Lane Studios complete, attention is moving to the second phase and the wider site. Last month, the College was awarded £35 million by the Higher Education Funding Council for England (HEFCE) through the UK Research Partnership Investment Fund (UK RPIF). This funding will be directed towards a £150 million Research and Translation Hub, which will provide high specification, multidisciplinary research space for 1,000 scientists and engineers and state-of-the-art incubator space for spinout companies. As well as the award from HEFCE, one of the largest by the UK RPIF, the new hub will be funded by a £90 million contribution from investor Voreda, with the remainder funded by the College.

Construction of the Research and Translation Hub is expected to begin in early 2013, and the site will eventually include leisure and retail facilities, a conference centre, homes for College and Imperial NHS Trust key workers and for private sale, and a publicly accessible square. Added together it creates a bold new vision to support and expand the College's existing activities.

"This really is a once in a generation opportunity," says President & Rector, Sir Keith O'Nions. "Imperial West will foster a culture of research and innovation electric with ideas. A place where students,

academics and industry partners collaborate to translate knowledge and expertise into solutions which enhance the world around us."

Opportunities at Imperial West

Now work has begun to scope out the academic uses for the site, an activity that will be led by Deputy Rector Stephen Richardson and Pro Rector (Research) Donal Bradley, working closely with Chief Operating Officer Simon Harding-Roots to define the facilities required, and to consider the mix of wet and dry labs, office and teaching space, and other facilities for staff and students.

"The South Kensington site is as full as I've ever seen it," says Stephen. "We just can't do any more here, and Imperial West presents a unique opportunity to do things that would simply not be possible elsewhere."

Whilst the academic vision for the site is still taking shape, given its close proximity to the Hammersmith Campus, those activities with a medical leaning may be a good fit. "For anyone doing research that requires access to patients, the opportunities at Imperial West will naturally be of interest," said Stephen.

Other considerations, as the project moves forward, include what additional transport links will be necessary to connect all the Imperial sites in west London. "The area is well served by tube stations at White City and Wood Lane, but we will be exploring the provision of a high frequency bus service, during both peak and off-peak hours, so that staff and students can move around freely," Stephen added.

Neatly summing up the opportunities Imperial West offers, Donal says: "Being able to work from a blank canvas allows us to set our ambitions incredibly high and to create something that is very much designed for purpose. And having £150 million to start spending on getting it right is a pretty good place to be."

—SIMON WATTS, COMMUNICATIONS AND DEVELOPMENT

Take note: *There will be an event for staff and students to launch the College's plans for Imperial West in early March. Look out for further details in the new year.*

“For anyone doing research that requires access to patients, the opportunities at Imperial West will naturally be of interest”



STORY SO FAR

- September 2009: College purchases former BBC Woodlands site for £28 million.
- July 2012: Planning permission for College's masterplan granted by London Borough of Hammersmith and Fulham.
- September 2012: Phase one completed with the opening of Wood Lane Studios.
- October 2012: College receives £35 million award to support development of £150 million Research and Translation Hub. Construction expected to begin early 2013.

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 ▶ The completed Wood Lane Studios

Imperial West in figures

- 7 acres** – size of site
- 606 postgraduates** accommodated in Wood Lane Studios
- 3,200** – number of permanent jobs created on site on completion
- 42,000m²** – size of Research and Translation Hub
- 500m** – distance to Imperial Centre for Translational and Experimental Medicine at Hammersmith Campus
- 99%** of the material transported from site during demolition and clearance was recycled
- 35** – number of storeys on building F

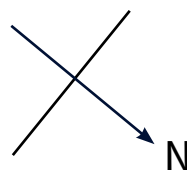
“ In terms of the scale of its facilities and of our ambition, it is unlike anything that exists in London, and will be an exemplar in the UK”
 –Sir Keith O’Nions



BUILDING KEY

- A, G Academic buildings (future development)
- B Wood Lane Studios postgraduate accommodation (completed)
- C, D Research and Translation Hub (completion 2015)
- E Conference centre with hotel facility (future development)
- F Accommodation tower (future development)

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 Above: Research and Translation Hub



TRANSPORT LINKS

- White City (Central Line) – 500m
- Wood Lane (Hammersmith and City Line) – 700m
- Shepherd’s Bush (Central Line, Overground) – 1km
- Heathrow Airport – 25km



Principal aims

One-time dentistry student Professor Dermot Kelleher is getting his teeth into the challenges of leading Imperial's Faculty of Medicine.

Looking back on Dermot Kelleher's career as a gastroenterologist, an eminent researcher in immunology and latterly Head of the School of Medicine at Trinity College Dublin, it might appear that he was always destined to be a medical leader. But that wasn't quite what he had in mind at the start of his academic life, which he began as a dentistry student. In his second year, he realised that he was on the wrong path, and transferred to medicine. He hasn't looked back since.

"From the point when I started contacting patients, that's when I thought that medicine was the career for me," he says. "It gives you something that very few careers can. You're looking at different problems every day. If you have an academic

career, you have the capacity to take on and analyse major research questions and it's a fantastically challenging career."

On 1 October, after 23 years at Trinity, Dermot took up a new challenge as Principal of the Faculty of Medicine at Imperial. He was particularly attracted by the College's capacity to undertake translational research. Driving new discoveries into clinical practice has been a theme of Dermot's work in Dublin, exemplified by his role in founding the Dublin Molecular Medicine Centre, a joint venture between three major medical schools and their associated hospitals, to accelerate the translation of biomedical research into improved diagnostics and therapies.

"We have within our labs wonderful findings and new knowledge about mechanisms of disease, but the critical issue is how we take that to a place where we can deliver changes to health for patients and populations."

Key to this, Dermot believes, is working with a mix of disciplines. "If we stop thinking about what we're doing on a regular day-to-day basis and think about what we could possibly achieve with engineers, physicists, chemists and academic clinicians working together, the opportunities here are endless."

"Think about what we could possibly achieve with engineers, physicists, chemists and academic clinicians working together...the opportunities here are endless"

Dermot is already leading a multidisciplinary working group to harness expertise from across the College in the field of imaging. He says one way to encourage more collaboration between disciplines is to set up Master's courses that span different faculties. "When you bring people together to think about education programmes, they very often find ways to work together in research."

There are challenges ahead for the Faculty which will require strong leadership. The NHS is planning a major reconfiguration of services in north west London which could mean that Imperial's teaching activities at the Charing Cross Campus have to move elsewhere. "That could cause us difficulties, or if we do it properly it gives us an opportunity to streamline our academic offerings and our hospital care," Dermot says. "It's a very important opportunity."

The new principal is relishing life in London, and he's already been impressed by what he's seen at Imperial. But he's determined to aim even higher. "To me the

most exciting thing is to take the raw material that we have right now, which is really excellent, and make something even better," he says.

His goal is to move up the international rankings, by further improving the quality of education the College offers. The opportunity for Imperial to develop an innovative curriculum for

the Lee Kong Chian School of Medicine in Singapore could play an important role. When the first students begin at the School in 2013, they will be using a new, team-based

learning approach to medical training, and if it works as well as hoped, there's a high chance that such an approach will be brought back to London. "There's huge enthusiasm around this for the education of prospective students. We will be looking at how we can modify and optimise team-based learning, but it's extremely likely that elements of that will be brought in here."

Academic rankings are a convenient yardstick for assessing the Faculty's performance, but success or failure for Dermot ultimately boils down to the impact of its work outside the College walls. "We measure our success by our capacity to change the world in which we exist, to develop new discoveries that change the way we live."

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT

inside*

story

mini profile

Ari Laptev

Reporter speaks to Professor Ari Laptev (Mathematics) about his lifelong passion for mathematics and the fascinating story that led him to Imperial.



How did you first become interested in maths?

One simple problem was crucial to how I became a mathematician. When I was about 14, I was a member of a 'mathematical circle' run by university students and I had been wondering how to write x^4+1 as a product of two expressions. After a time, one of the students made a suggestion: "why don't you add and subtract something?" That was it. It was a crucial moment for me. One year later I entered a school that specialised in deeper mathematical courses and then joined the Department of Mathematics at Leningrad University as an undergraduate.

What did you do next?

After completing my PhD at Leningrad in 1978 my supervisor suggested that I apply for a postdoctoral position in Stockholm. It was very difficult to leave the country but after two years my application was accepted. While I was in Sweden I met my future wife, Marilyn, but was soon ordered to return to the Soviet Union.

How did you come to finally leave the Soviet Union?

I was told that because of my relationship with a foreign woman, I could no longer hold a position at Leningrad University, and so I became a construction worker for five years. Marilyn and I got married and eventually our case for emigration was presented in 1986 by Geoffrey Howe, UK Foreign Secretary, to Edvard Shevardnadze, Soviet Foreign Minister. They met in Helsinki and somehow they allowed me to go!

Can you explain a bit more about your work at Imperial?

My research is in a beautiful area – functional analysis and spectral theory. It's a way of solving problems inversely. A classic example is if you have a drum or instrument and you record all the tones, can you infer its shape? Inverse problems are actually important for many things, such as finding oil or in cancer technology.

—ANTHONY WILKINSON, COMMUNICATIONS AND DEVELOPMENT

Creative writing

Ronnie McGrath is an author, performance poet and creative writing lecturer who runs courses for Imperial staff and students through the Centre for Co-Curricular Studies. The creative writing sessions take place for two hours each Thursday evening for 20 weeks, with a more intense programme offered during the summer.



"Most people are creative but they suppress this for whatever reason, sometimes through necessity. Then they reach a stage in their lives where maybe they've achieved the things they wanted to, and they can now give the creative side some attention. Some people come to the course and they yearn to be creative again, because maybe they've been doing something that they perceive to be quite rigid.

During the course I might introduce an idea or look at a particular genre of writing, then we will work through an exercise – sometimes just with images to begin with and then we introduce text.

People on the course tend to draw on their own diverse experiences. I had a student who was a radiologist and she was a little sceptical at first, but she wrote a really great short story about this guy who fell in love with this girl, but

he could tell if someone was about to die, so he knew she had cancer and it raised all sorts of issues.

There's always a sharing element built in towards the end of the course; that's something that you have to have. For the writer it's really good for them to hear other writers who have dealt with a problem in their own particular way – that's really where the learning takes place."

To learn about courses starting next term, visit: www3.imperial.ac.uk/humanities/eveningclasses



▶ SCIENCE FROM SCRATCH

As explained by Laurence Pope, MSc Science Communication

What is a superstorm?

The term 'superstorm' isn't strictly a scientific one, but a subjective name for a very destructive storm event. Hurricane Sandy was technically a tropical cyclone (a hurricane is the name given to tropical cyclones that form in the Atlantic or east Pacific).

Tropical cyclones can be thought of as engines that require fuel in the form of warm, moist air from waters above 27°C. This air begins to rise, eventually condensing in the cooler upper atmosphere, producing storm clouds and releasing excess heat. This heat warms the surrounding cool air, causing that to rise up. Warm, moist air from the ocean surface then rushes in to fill the resulting low pressure void, causing further heating and more rising air, propagating a cycle. Coupled with low winds and the Earth's rotation the system begins to spin and gain momentum. When it reaches land or cold water it starts to 'power down' – but not before causing major damage.

Did global warming produce Hurricane Sandy? No – tropical storms occur regardless of global warming. However, rising global temperatures and warmer oceans could make them more severe.





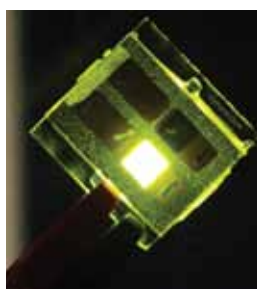
► INVENTOR'S CORNER

Super-efficient screens

Dr Matt Fuchter is a senior lecturer in synthetic chemistry (Chemistry), whose work involves the design, synthesis and study of molecules with interesting functions. Together with Dr Alasdair Campbell (Physics), he is developing more efficient organic light-emitting diodes (OLEDs) that could be used in the next generation of screen displays for TVs, mobile phones and cameras.

Why have you developed this?

Current screen display technologies, such as backlit LCD TVs (see image), are actually quite energy-



Single OLED device

inefficient. That's because they use polarising filters as a means to switch individual pixels on and off and ultimately create different visual projections. The problem is that the filters effectively cut out 75 per cent of the light generated by the backlight. In fact, after absorption by additional colour filters,

only 4 per cent of the light originally generated is actually transmitted, resulting in energy-inefficient displays. An alternative approach would be to use an OLED backlight that directly emits circularly polarised light, meaning the polarising filters aren't actually needed.



Commercially available back-lit LCD TV by electronics firm LG

How have you achieved this?

Standard OLEDs contain a light-emitting polymer, and we simply mixed this with a small amount of a molecule known as a helicene. This blend was then used to fabricate OLED devices using existing procedures. The helicene organises the polymer into an appropriate conformation, so that it can directly emit circularly polarised light.

What are the benefits?

Since no special processing conditions or mixing methods were used to achieve this result, it should be readily incorporated into standard production lines. Removing the need for polarising filters means circularly polarised light emitting OLEDs could be made more compact and, as one example, would result in highly energy-efficient LCD displays with significantly extended battery life.

—KAILEY NOLAN, IMPERIAL INNOVATIONS

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

blog
SPOT

Student blogger Bernadeta on
Leonardo da Vinci :

“Recently I had the chance to visit an exhibition of anatomical drawings by Leonardo da Vinci at the Queen’s Gallery, Buckingham Palace. Well, the conclusion from this is quite plain – Leonardo was one of a kind. I have no idea how one man can be so talented in so many things (mind you, that was probably at the same time his biggest downfall; he hardly finished any of his projects because in the end he always wandered off to do something else). This exhibition was of particular interest to me because I’m taking a course in the history of medicine.”



www.imperial.ac.uk/campus_life/studentblogs

Disability history month

The inspiring performances of athletes at the Paralympic Games this summer did much to raise awareness of the rights of people with disabilities in the minds of the British public. But it is an ongoing process and the need to improve disabled people’s experiences in the workplace still, arguably, remains ‘the final frontier’. This is one of the issues that will be explored in a public lecture on 22 November by Dr Ossie Stuart (previously an academic at the Universities of Oxford, York and Roehampton) as part of a series of events by the College in support of UK Disability History Month (UKDHM).

This will be followed by a webinar on 4 December by Dr Patricia Oliver-Africano (Medicine), whose research focuses on people with learning and developmental disorders. Designing clinical trials to test therapies for these people is traditionally problematic due to issues with informed consent. As a result very few trials actually go ahead and people with these conditions are somewhat neglected. Patricia’s work involves designing better trials so that treatment approaches can be properly validated and implemented, and people with

learning and developmental disorders can ultimately lead more active lives with the potential for employment.

With the once taboo subject of mental health now very much in the public discourse, the College will welcome performance poets, who will be offering their own unique responses to issues of mental health on 6 December as part of the *This poetry, it’s madness!* event.

Lastly, on 10 December, there will be a screening of the film *Temple Grandin*, a biopic about the eponymous autistic woman

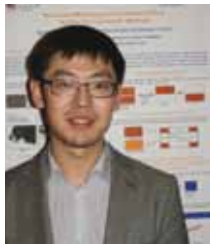


who has become one of the top scientists in the humane livestock handling industry.

—ANDREW CZYZEWSKI, COMMUNICATIONS AND DEVELOPMENT

For more information about times and locations of Imperial UKDHM events, visit: <http://bit.ly/XEwSyw>

Joined-up thinking



Boyang Chen, a joint Imperial-National University of Singapore (NUS) PhD student in Aeronautics, reports on his experience attending the Imperial-NUS symposium on Tools and Technology Development, hosted by the International Office on 22–23 October at South Kensington Campus. Attendees included the Singaporean Deputy High Commissioner Mr Stephen Quick, Dr Simon Buckle, Pro Rector (International), academics from both institutions, and current and prospective joint PhD students.

“In my talk on the student experience of a joint PhD, I highlighted the benefits of the programme, which frequently blends the expertise and perspectives from both sides of the collaboration. Working with supervisors at different institutions gives me access to two networks and two sets of ideas.

Researchers from various departments at both institutions then presented their work and proposals for potential collaboration, having identified gaps in expertise or equipment where this could be beneficial.

During a poster fair where 10 joint PhD students exhibited their research, people from a completely different background to my own asked questions that I had never considered.

The symposium showcased the importance of collaboration as well as its practicability between the two institutions. It was a wonderful break from my own field of research and a good occasion to broaden my knowledge and vision.”

To find out more about joint PhD programmes visit:

www3.imperial.ac.uk/international/prospective/phds/nus/what

An ambassador's memoirs

Good ambassadors are vital for any institution – whether a state, business or university – and Imperial is no exception. The International Office runs the Rector's Ambassadors Scheme, in which participating students act as an official representative of the College, giving tours, presenting at schools and conferences, attending formal events and generally assisting with external relations. Abdul Patel took part in the scheme as an undergraduate whilst studying Materials Science and Engineering.

“When I first became an ambassador, the concept of talking in front of what I deemed at the time to be a large audience was daunting. However, within a short span of time I was directing several tours a day and receiving high praise by the attendees. (I was even, at one point, told by a fresher

that my tour was the reason why he decided on Imperial!)

“My fondest memory during my time as an ambassador has to be when I was selected to attend the International Sustainable World Engineering, Energy and Environment Project Olympiad in Houston, Texas, in the summer of 2011. My role was to promote the College and answer any queries about Imperial, and I even got to visit the NASA space centre on one occasion.

Just to be abroad representing the College is a privilege few will ever have the fortune to experience but is something you could be involved in as an ambassador. I highly recommend the scheme to any student, regardless of background or year of study.”

To find out more about the scheme, visit: www.imperial.ac.uk/international/prospective/rectorsambassadors

“Within a short span of time I was directing several tours a day and receiving high praise by the attendees”

course review



By course attendee Dr Mathew Lilley, Junior Research Fellow (Physics)

Managing your first research group

1 Why did you go on the course?

I am just about to submit a grant which, if successful, will double my team. I felt like this was the right time to learn about what it means to manage a team of scientists and how I could be most effective in a management role.

2 What did you learn?

Broadly, I learned about the different roles that people play in teams and where I fit into that spectrum. It was particularly interesting to see how your self-perception contrasted with how others see you. We discussed the general issue of how to balance your own research objectives with managing your team and it was very useful to hear different people's perspectives in the group. In summary, I would say the course gave me a better appreciation of how a career in science develops over time and gave me some new ways to see myself and the people I work with.

3 How has it been helpful in your role?

The course was extremely helpful; I used the ideas to redefine my day-to-day work routine to enable me to better focus on my priorities. Knowing what my weak points are has helped me to create a strategy to ensure I work on improving those areas.

To find out more about the course visit: <http://bit.ly/XrUyaC>



Well done to Imperial RAG Society

On 7 November Imperial students collected nearly £11,000 for the Poppy Appeal at tube stations around London. No wonder they look pleased! So far this year's RAG has raised over £20,000.

obituaries



MARIA PETROU

Maria Petrou, Professor of Signal Processing (Electrical and Electronic Engineering), died from cancer on 15 October at the age of 59. Professor Richard Vinter (Electrical and Electronic Engineering) pays tribute to his colleague.

“Maria spoke of herself

as a problem solver, and enthusiastically took on projects involving the application of image processing, computer vision and pattern recognition to medical, geoscientific sensing and other fields. The range of research activities she undertook is, in part, a testament to her intelligence, dynamism and scientific curiosity.

Maria was Head of the Communications and Signal Processing Group in the Department until 2009. She subsequently accepted the position of Director of the Informatics and Telematics Institute of CERTH, Thessaloniki, Greece, while retaining a quarter-time position at Imperial.

Maria was a supremely clear-minded person: in discussion, any position she took was backed by a fierce logic, compellingly articulated.

A deeply engrained rationalism co-existed in her personality with warmth and a sense of fun. Her newsletters were often playful and illustrated with her own distinctive, humorous cartoons. She was uninhibited in expressing her opinions. She maintained a Greek language blog on which she shared her views on a wide range of topics, from politics and economics to art and film.

Maria’s untimely death has deprived the academic community of a distinguished researcher, a dedicated teacher and a champion for women in engineering.”

long
service

Staff featured in this column have given many years of service to the College. Staff listed below celebrate anniversaries during the period 18 October–18 November. The data is supplied by HR and is correct at the time of going to press.

–SAM TRACEY, COMMUNICATIONS AND DEVELOPMENT INTERN

20 years

- Professor Dudley Pennell, Professor of Cardiology, National Heart and Lung Institute
- Mrs Marjorian Whyte, Team Leader, Expenses, Finance Division

30 years

- Ms Anne Barrett, College Archivist and Corporate Records Manager, College Archives and Corporate Records Unit
- Mr David Slough, Leading Postal Officer, Security Services

40 years

Miss Sheila McKenzie, Administrator, Department of Medicine

SPOTLIGHT

David Slough, Leading Postal Officer (Security Services)

30 years



David Slough has been the Lead Postal Officer at the Department of Security and Post Services for 30 years and says he remembers the exact day he arrived, 18 October, 1982. In those days he and his colleagues were referred to as “messengers” he says. He now deals with all the post for the College at offices on the Hammersmith Campus. “I’ve seen many people come

and go over the years and the buildings are unrecognisable now from when I joined.”

Weathering the storm



The last few years have been financially challenging for all universities; but Imperial’s Finance Division, headed by Andrew Murphy, has helped the College maintain a strong

position. After seven years of service, Andrew is moving on to a new role at the University of London.

Can you describe your role at Imperial?

I am responsible for ensuring that staff and suppliers are paid each month, students receive their bursaries, we pay the right amount of tax, money owed is collected,

and the financial position of the College is reported on a regular basis both internally to management and externally to stakeholders. It’s a varied role which allows me to get involved in different areas across College and deal with many interesting people.

How did you end up at the College?

I previously worked for a number of large companies including British Airways, Amersham Plc and finally GE, but found that I preferred working at the centre of organisations where the decisions are made. A recruiter then persuaded me that the university sector would be an interesting and challenging environment to work in and he was right – I’ve really enjoyed my time at Imperial.

What are you most proud of from your time at the College?

Despite the uncertain times that we are in, the College is in very good financial health, thanks

in no small part to the team here at the Finance Division. This enables the College to face the future with confidence and make its own choices.

Has your career brought you into contact with any memorable people?

I remember when Boris Johnson came to open Eastside and gave a very entertaining speech. He arrived on his bike and the security team had to assign someone to personally guard it. You can imagine the negative PR had it been stolen!

What are your future plans?

I am looking forward to a different set of challenges as Director of Finance and Planning at the University of London. On a personal note, my two elder boys are doing their A-levels and GCSEs at the moment and so it feels like a job in itself helping them achieve their maximum potential.

Welcome new starters

Mr Mark Abel, Surgery and Cancer
 Dr Cristobal Aguilar Gallardo, Chemical Engineering
 Miss Tola Alao, Commercial Services
 Miss Lara Al-Olabi, Surgery and Cancer
 Dr Anna Andreou, Surgery and Cancer
 Ms Maria Aresu, Public Health
 Mr Fabio Argentia, Medicine
 Miss Hanna Barriga, Chemistry
 Mr Mark Batten, Finance
 Dr Lucie Baudino, Medicine
 Miss Abigail Bentley, NHLI
 Dr David Boyle, EEE
 Miss Ana Branco Estevao, Medicine
 Dr Ben Britton, Materials
 Mr Patrick Brock, Public Health
 Mr Paul Brookes, Chemistry
 Miss Sophie Campen, Mechanical Engineering
 Dr Matthew Cane, Medicine
 Dr Vidya Chandran, Life Sciences
 Mr David Charles, Life Sciences
 Ms Florence Christofi, Medicine
 Dr Katrina Curtis, NHLI
 Mr Andrew Czyzewski, Communications and Development
 Ms Olivia Davenport, Communications and Development
 Dr Sara De Matteis, NHLI
 Dr Kate de Mattos-Shiple, Medicine
 Miss Ernestina Dias Fernandes, EYEC
 Dr Claire Doyle, Outreach Office
 Dr Emmanuel Dupont, NHLI
 Dr Lydia Durant, NHLI
 Mr Xiuyi Fan, Computing
 Mr Angelo Franchini, Public Health
 Mr Simon Funke, ESE
 Dr Olivia Geraghty, Medicine

Dr Yoshinori Gongyo, Mathematics
 Dr Elizabeth Hauke, Professional Development
 Dr Beth Holder, Medicine
 Mr Ramtin Hosseini Kamal, Civil and Environmental Engineering
 Ms Iwona Josko-Dowlut, Human Resources
 Ms Dimitra Kalogiannopoulou, Medicine
 Dr Prashant Kapadnis, Chemistry
 Miss Zarine Khurshid, Commercial Services
 Dr Alexandros Koliouisis, Computing
 Mr Gokul Kolipaka, Medicine
 Dr Sonia Kumar, Public Health
 Miss Wendy Kuo, Chemistry
 Mr Michael Lange, ESE
 Dr Jared Leisner, Physics
 Dr Yu Luo, Physics
 Mr Michael Mace, Mechanical Engineering
 Miss Ruchi Maniar, Medicine
 Mr Karikaran Manoharan, NHLI
 Ms Ruth Misener, Chemical Engineering
 Mr James Monkman, Medicine
 Miss Joanna Moore, Surgery and Cancer
 Mr John Murray-Bruce, EEE
 Miss Jasmina Music, Computing
 Mr Will Neal, ESE
 Dr Zacharoula Nikolakopoulou, NHLI
 Dr Ioannis Pandis, Computing
 Mr Bob Parish, Business School
 Dr Ankoor Patel, Materials
 Mr Neki Patel, Chemistry
 Dr Angela Pathiraja, Surgery and Cancer
 Dr Alexander Plato, Physics
 Mr Benjamin Pollard, NHLI
 Dr Constandina Pospori, NHLI
 Miss Jane Proudfoot, NHLI
 Dr Andreas Pusch, Physics
 Mr Mark Rackham, Chemistry
 Dr Antonino Salerno, Computing
 Dr Rebeca Santamaria-Fernandez, Corporate Partnerships

Dr William Scott, NHLI
 Miss Federica Secci, Medicine
 Dr Nicholas Sharples, Mathematics
 Mr Thomas Shea, NHLI
 Mr Marco Siano, Physics
 Ms Zinah Sorefan, Surgery and Cancer
 Dr Jorge Soza Reid, Clinical Sciences
 Miss Milena Szczegielniak, Medicine
 Ms Tamara Szucs, Communications and Development
 Mr Samuel Taub, Materials
 Dr Ranjeeta Thomas, Business School
 Miss Kathy Tognon, Faculty of Medicine
 Ms Miriam Toro Castro, NHLI
 Dr Paul Turner, Medicine
 Mrs Ann Watson, NHLI
 Mr Michael Weatherburn, Professional Development
 Mr Taliesin Williams, Surgery and Cancer
 Mr Charence Wong, Computing
 Mr Phillip Wood, Climate KIC
 Dr Matt Woolf, EEE
 Miss Beata Wrotniak, NHLI
 Dr Sebastian Wuestner, Physics
 Mr Hainan Xie, Materials
 Mr Andrianos Yorkas, Medicine

Farewell moving on

Dr Maria Angelopoulou, EEE
 Dr Minas Bacharis, Physics
 Dr Sivakumar Balasubramanian, Bioengineering
 Dr Akindynos-Nikolaos Baltas, Business School
 Dr Alessandro Barbarulo, Medicine
 Dr Alice Bell, Professional Development
 Dr Colin Belton, Physics (6 years)
 Dr Yacine Bentaleb, Aeronautics
 Dr Nicole Bilek, Public Health (11 years)

Dr Peter Boehm, Computing
 Dr Susan Brook, Medicine
 Mr Yao Chen, EEE
 Professor Daniel Davis, Life Sciences (12 years)
 Mr Charles Dean, Chemical Engineering
 Professor Trevor Dean, Mechanical Engineering
 Miss Sarah Feehan, Accommodation
 Dr David Futyan, Physics (6 years)
 Dr Rashid Ganeev, Physics
 Dr Tanya Goldberg, ESE
 Dr Tony Gong, Chemistry
 Dr Ciara Greene, Medicine
 Dr Thorsten Hamann, Life Sciences (5 years)
 Dr David Hart, Environmental Policy (17 years)
 Mr Kyriakos Hatzaras, Medicine
 Miss Faye Hemsley, Accommodation
 Miss Emer Hughes, Clinical Sciences (5 years)
 Mr Trevor Johnson, Accommodation
 Dr Siva Krishnadasan, Chemistry
 Dr Sam Ladak, Materials
 Dr Kalpana Lal, Life Sciences
 Dr Haksung Lee, Materials
 Mr Marc Lind, Faculty of Medicine
 Miss Sanja Maglajlija, EYEC
 Mr Thirukumaran Maheswaran, Accommodation
 Mr Joseph Malone, Public Health
 Mrs Helena Mapanzure, Surgery and Cancer
 Ms Faye Minshall, Human Resources
 Dr Stephanie Miot, Aeronautics
 Dr Maxime Mioulane, NHLI
 Dr Natasha Mohammed, Surgery and Cancer
 Miss Alison Nolan, Life Sciences
 Ms Marianela Vermeer, Faculty of Engineering
 Mr Michael O'Shea, EEE
 Miss Hillal Paksoy, Mechanical Engineering
 Miss Deeviya Patel, Medicine
 Mr John Phillips, Chemistry

Dr Konstantinos Pipilis, Chemical Engineering
 Dr Sanjay Popat, NHLI
 Mr Andrew Raxworthy Cooper, Medicine (7 years)
 Dr Steven Reid, Medicine (6 years)
 Mr Victor Rodrigues, Sport and Leisure
 Mrs Kirsten Rose, Medicine (10 years)
 Mr Mohammad Saidi, Library
 Dr Katherine Scott, Medicine
 Mr Takuya Sekine, Medicine
 Mr Xia Sheng, Life Sciences
 Dr Jerome Sohler, NHLI
 Mr Hauke Strasdat, Computing
 Mr Sinbad Sweeney, NHLI
 Dr Andrei Tarasov, Medicine (5 years)
 Mr Rajagopal Vellingiri, Chemical Engineering
 Dr Stuart Wakefield, Physics (5 years)
 Dr Marjorie Walker, Medicine (28 years)
 Dr Robin Wolz, Computing
 Ms Naomi Wynter-Vincent, International Office
 Dr Alex Yue, Bioengineering (7 years)

retirement

Mr John Dennis, ESE (37 years)
 Mrs Ann Sewell, Chemical Engineering (11 years)
 Mr David Tomlin, Mechanical Engineering (8 years)
 Mrs Kate Woodhouse, Public Health (8 years)

This data is supplied by HR and covers the period 17 October–6 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.



28 NOVEMBER ▶ PUBLIC LECTURE

It's not oil gone

Crude oil is the major source of today's energy supply, particularly for transport, and is projected to remain so for many decades to come. It is, however, a finite resource and will eventually run out. Not only this, but the carbon

dioxide produced by burning oil makes it a significant contributor to climate change. Professor Ann Muggeridge (Earth Science and Engineering) uses her inaugural lecture to explore the methods used to recover oil and the opportunities to exploit the remaining reserves through new and emerging technologies.



29 NOVEMBER ▶ IMPERIAL FRINGE

Cutting close to the bone

From stem cells and osteoporosis to density and strength, our bones are as complex as they are mysterious. Meet those at the forefront of bone research for a lighthearted evening of discovery at November's Imperial Fringe, featuring

demonstrations, drinks and a special debate. Three of Imperial's bone experts will take you on a journey beneath your skin to the skeletons in your closet. What do our bones tell us about ourselves, and how does our 21st century lifestyle change them? A pay bar will be open throughout.

take note

ICIS system to be upgraded



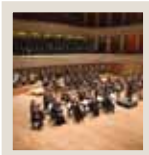
A team at ICT will be upgrading the ICIS (Imperial College's main Finance, HR, Grants and Student Management Information System). The functionality of ICIS will remain the same, but there will be some changes to how it looks on screen. The changes will lead to an extended outage of ICIS, currently scheduled from 29 November–4 December.

For more information visit:
<http://bit.ly/UVuEKL>

25 NOVEMBER ▶ MUSIC

Barnardo's benefit concert

Performance by the European Doctors Orchestra



29 NOVEMBER ▶ MUSIC

Lunchtime concert

Florilegium

29 NOVEMBER ▶ PUBLIC LECTURE

Imperial Business Insights

Professor Dieter Helm, University of Oxford

27 NOVEMBER ▶ PUBLIC LECTURE

Clearing the air: asbestos, cigarette smoke and nanoparticles

Professor Terry Tetley (National Heart and Lung Institute)

29 NOVEMBER ▶ PUBLIC LECTURE

Electronic tsunami: changing human behaviour

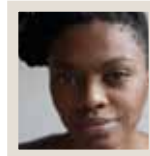
Professor Nelson Phillips (Business School)



6 DECEMBER ▶ SEMINAR

This poetry is madness!

Poets Zena Edwards and Mark Gwynne Jones



11 DECEMBER ▶ PUBLIC LECTURE

Impact: policy, politics and science

Adam Afriyie, MP and Imperial alumnus

12 DECEMBER ▶ PUBLIC LECTURE

Breaking into your brain

Dr Aldo Faisal (Bioengineering)

13 DECEMBER ▶ IMPERIAL FRINGE

A feast for the sciences

Christmas themed Fringe event

13 DECEMBER ▶ PUBLIC LECTURE

Grantham annual lecture

Dr John Holdren, Director of the White House Office of Science and Technology Policy



28 NOVEMBER ▶ SEMINAR

26,000 km down the Pan-American highway in an electric car'

Clemens Lorf (Mechanical Engineering)



29 NOVEMBER ▶ SEMINAR

Magneto-resistance and spin-transfer torque in magnetic tunnel junctions

Professor Shinji Yuasa, AIST, Japan

5 DECEMBER ▶ OPEN DAY

Postgraduate Open Day

5 DECEMBER ▶ PUBLIC LECTURE

The scar that binds

Professor Robert Goldin (Medicine)

5 DECEMBER ▶ SEMINAR

We made water from every living thing

Katrin Glatzel (Centre for Environmental Policy)

Stay in the loop

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MEET THE READER



Karen Lyle, Centre Manager, Centre for Environmental Policy

What are you doing in the picture?

I'm just waiting for the editor of Reporter, who is running a little late! He can be forgiven as we've just moved into 13, 14 and 15 Prince's Gardens from the annex of Mechanical Engineering. It's a much nicer, quieter location. But more importantly it gives us a proper identity.

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

Having worked in administration for 22 years, there are areas that never get highlighted, they all get moaned about and, actually, they're doing a really good job – for example, our faculty research team (Natural Sciences) work incredibly hard behind the scenes.

Who would be your cover star?

The Centre's new Director, Zen Makuch, is trying to link up more with other departments. Environment is something a lot of people are working on, and there's huge potential in adopting an even more joined-up approach. Together we can be stronger!

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

