Imperial College London

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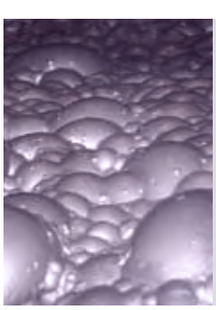
Mass action

Crowds gather for largest ever Postgraduate Awards ceremonies

CENTRE PAGES



MINE OF THE FUTURE

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in brief

Say your goodbyes

A signature book is now available for College members to write a farewell greeting to the Rector, Sir Richard Sykes, who retires at the end of June. To sign the book, please visit the reception desk in the Faculty Building at the South Kensington Campus.

Books will also be made available for signing at the College's other campuses on the dates below:

- Charing Cross 27–30 May
- Chelsea and Westminster 2–6 June
- Hammersmith 27–30 May
- Royal Brompton 2–6 June
- Silwood 9–13 June
- St Mary's 9–13 June

The signature book in the Faculty Building at South Kensington will remain available for signing throughout this time.

You can also send a signed label with your message to: Polly Meudell, Central Secretariat, Level 4, Faculty Building, South Kensington Campus, London SW7 2AZ. The deadline for messages to be included in the book is Friday 20 June.

Spiral celebrates its 1,000th submission

Spiral, Imperial College's digital repository, reached its 1,000th entry last week. *Spiral* went live in September 2007 and was officially launched in March 2008 (as featured in *Reporter* issue 189). The online resource designed to make its content highly accessible by search engines, contains the full text of journals, conference papers and books chapters published and submitted by Imperial academics and researchers. The 1,000th item was the journal article *Many-body physics and the capacity of quantum channels with memory,* by M.B. Plenio and S. Virmani. To access *Spiral* content visit: **http://spiral.imperial.ac.uk**

New member on board

In order to support the development of the Academic Health Science Centre, the Managing Director of the Imperial College Healthcare NHS Trust, Ms Claire Perry, will join the Imperial Management Board with immediate effect. The move will help the integration of the objectives of the two partners, the College and the Trust, and demonstrates the College's commitment to the partnership.

£6 million centre to develop mining technologies

Advanced mining and mineral processing techniques to extract minerals from deep within the Earth will be developed thanks to the establishment of a new £6 million research centre.

The Rio Tinto Centre for Advanced Mineral Recovery is a partnership between Imperial College London and mining company Rio Tinto aimed at developing the mine of the future.

Minerals used to produce valuable metals such as copper, which is used in electrical wiring, or nickel, used to make stainless steel, are becoming increasingly hard to find and recover using traditional mining methods. Because of this, extracting these minerals efficiently from deeper underground is becoming an important focus for mining research.

The Centre will develop a range of new mining technologies that use less energy to mine more minerals from hard to reach places deep underground.

Scientists will be developing more efficient techniques for block caving. This exploits the natural fractures in rocks so that they break under gravity rather than by using explosives, making the mining process cheaper and safer.

Commenting on the partnership, Rector Sir Richard Sykes said: "This long-term research and development collaboration is a great example of how industry and academia can work together to drive economic competitiveness and to benefit the environment. Imperial and Rio Tinto have different but complementary strengths. By pooling them in this way, we can develop innovative technological solutions and implement them speedily."

—Colin Smith, Communications

Teams of staff competed to win the student experience quiz at the Away Day

Improving the student experience

The student experience was the theme of the Away Day attended by Departmental Administrators, Faculty/Tanaka Business School managers and Support Services managers on 20 May at the Royal Geographical Society.

Introducing the topic, Dr Martin Knight, Chief Operating Officer, spoke of the need to create a strong professional management team, similar to a high quality civil service, to support the College's academic mission and to ensure that students benefit from this approach. Noting that the College receives £85 million from academic fees and support grants, Dr Knight said: "Students have the right to demand quality of service in return for the money they're paying."

"We are doing things to make the student experience really good, but we can do better."

Dr Knight commended the work already underway to improve the service that students receive. IT developments are creating efficiencies, such as enabling students to register online; the student hub in the Sherfield Building means that students can visit the same place to pay a bill or ask about accommodation; and the investments in student residences are creating excellent facilities. He concluded, "We are doing things to make the student experience really good, but we can do better."

Professor Michael Thorne, Vice Chancellor of Anglia Ruskin University, was invited to speak about his work to revolutionise the student experience in his previous role at the University of East London. Summing up the day, Rector Sir Richard Sykes said that quality counts when competing for students on a global stage.

—Caroline Davis, Communications

Engineers to test their technology on Martian soil

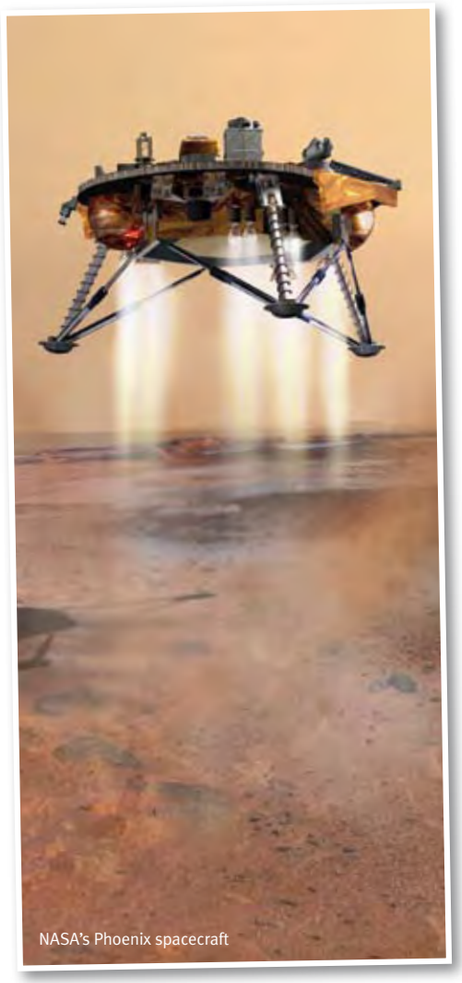
Imperial engineers prepare to test their technology on Martian soil this month with the touchdown of NASA's Phoenix spacecraft near the red planet's north pole.

Phoenix's mission is to collect soil and dust samples to find evidence of ice particles indicating that Mars could once have had conditions sympathetic to life.

Dr Tom Pike, Dr Sanjay Vijendran and PhD student Hanna Sykulska (Electrical and Electronic Engineering) are amongst the scientists able to carry out the most detailed analyses ever of Martian soil and dust samples thanks to the Phoenix mission.

The researchers have produced silicon discs which have very fine patterns etched onto their surface to hold Martian soil and dust for analysis by Phoenix's powerful microscopy station.

The microscopy station contains an optical microscope, which uses light and a system of lenses to magnify images, and an atomic force microscope, which scans images down to a fraction of a micrometre to get the highest resolution images ever of Martian soil.



NASA's Phoenix spacecraft

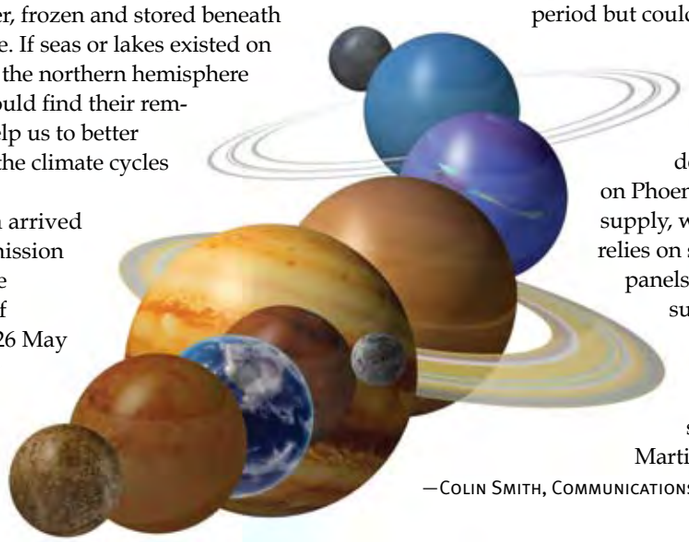
Imperial team leader Dr Pike says the mission represents the first chance to really analyse what is beneath the Martian surface.

"This is an exciting mission giving us the rare chance to be the first people to analyse water, frozen and stored beneath Mars' surface. If seas or lakes existed on the plains in the northern hemisphere our tools should find their remnants and help us to better understand the climate cycles of Mars."

The team arrived at NASA's mission control at the University of Arizona on 26 May and are now working in shifts during the 24-hour 38-minute Martian day. One of their roles is extracting the microscope images from data beamed back from Phoenix. They will then analyse these images and select instructions to send to its excavating arm to dig for fresh soil samples.

> "This is an exciting mission giving us the rare chance to be the first people to analyse water, frozen and stored beneath Mars' surface."

The mission is planned for a 90 day period but could be extended for a further 60 days depending on Phoenix's power supply, which relies on solar panels to convert sunlight into energy from the low sun of the Martian arctic.



—Colin Smith, Communications

Imperial engineer takes Royal Society's top honour

A leading Imperial researcher has been elected as one of the 44 new Fellows of the Royal Society.

Professor Christofer Toumazou, Executive Director of the Institute of Biomedical Engineering and Winston Wong Chair in Biomedical Circuits at the College, was elected to the UK's national academy of science for his work in analogue signal processing, used in mobile phone technology, which led to advances in telecommunications and the revolutionary design of new prosthetic implants.

Professor Toumazou

Amongst his many achievements, Professor Toumazou developed one of the world's first implantable cochlear chips, which gave hearing back to the born deaf, and also developed the silicon pancreas, which mimics the function of the pancreas' beta cell to regulate insulin flow for people with type-1 diabetes.

Utilising analogue mobile phone technology for patient care led Professor Toumazou to develop other innovative electronic devices. These include the Sensium ultra-low power wireless body monitoring system, which gives physicians constant access to the vital signs, such as body temperature of patients based at home with chronic illnesses.

Professor Toumazou is also recognised for establishing Imperial's £22 million Institute of Biomedical Engineering.

Commenting on the honour, Professor Toumazou said: "I am extremely proud to be elected to the Fellowship of the Royal Society. It is humbling to be amongst a group of such distinguished peers."

The Royal Society honours list also included the Chief Executive of the Medical Research Council (MRC), Sir Leszek Borysiewicz, former Deputy Rector at Imperial who moved to the MRC in 2007.

—Colin Smith, Communications

media mentions

—Danielle Reeves, Communications

Financial Times ▸ 12 May

Businesses to benefit from an executive education

Small and medium-sized enterprises are increasingly turning to business schools for inspiration, following in the footsteps of larger companies, reports the *Financial Times*. Tanaka Business School focuses on custom programmes to help small and medium-sized organisations. One example is *Design London*, a collaborative partnership between Tanaka, Imperial's Faculty of Engineering and the Royal College of Art, which focuses on smaller businesses. "We want clients to take the message about how design-led innovation can help transform the business performance of SMEs," project director Nick Leon (Tanaka) told the paper.

BBC News Online ▸ 15 May

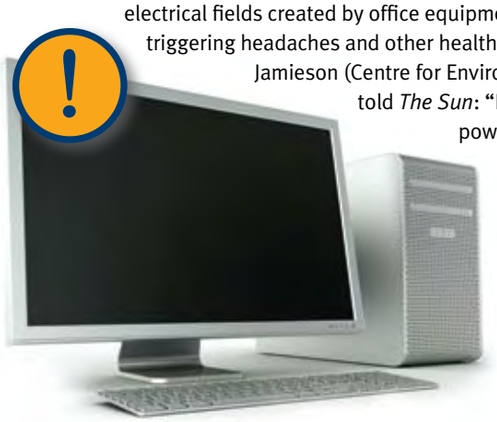
Poor construction blamed for high death toll in China earthquake

China's state media is blaming poor construction of school buildings for the high death toll in the recent earthquake according to *BBC News Online*. China adopted strict building codes after the 1976 earthquake but BBC correspondents in China say there is concern that corners were cut to siphon off money in the construction industry, especially in rural areas. Professor Julian Bommer (Civil and Environmental Engineering) told the *BBC*: "Countries in earthquake zones need rigorous inspection regimes to monitor the building regulations they introduce."

The Sun ▸ 15 May

The unknown dangers of the office

Working nine to five in an average office holds hidden health risks, say scientists. Sitting at your computer for long periods of time could double the risk of getting a blood clot, while electronic smog may also be a threat, with electrical fields created by office equipment possibly triggering headaches and other health problems. Keith Jamieson (Centre for Environmental Policy) told *The Sun*: "Electric fields have a powerful effect on the air. That's why the backs of computers get covered in dust. The same thing happens to people's skin and lungs. It increases the toxic load that the body has to deal with."



Evening Standard ▸ 20 May

The fight against obesity

Patients are to be fast-tracked for fat loss operations in a bid to beat the obesity crisis, reports the *Evening Standard*. Hospital trusts in London and the South East have been chosen to provide stomach-shrinking surgery for the first time, with at least 2,000 operations to be carried out a year. It is hoped that this will reduce the burden on the NHS of weight-related diseases such as diabetes and heart disease. Imperial has recruited the country's youngest obesity (bariatric) surgeon. Ahmed Ahmed (Investigative Science), aged 35, is one of 35 NHS obesity surgeons in the UK. He tells the paper: "Drugs and tablets have their role, but when we're faced with someone who is 150 kilograms and they have tried everything else then it's a life and death situation."

The Daily Telegraph ▸ 17 May

Revolutionary treatment for heart attack patients

Researchers at Imperial are working on a new gene therapy technique that could lead to heart patients being treated with an injection instead of transplant surgery. Professor Sian Harding (NHLI) told *The Daily Telegraph*: "We are aiming to make the most of the heart muscle that a patient has left after a heart attack. In cases where they suffer a lot of damage, patients are given pumps called Left Ventricular Assist Devices that support the heart while they wait for a transplant. We hope to be able to wean them off the pumps to the point it can be removed and they can live a normal life."

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Imperial College Healthcare NHS
NHS Trust

NEWS

NHS staff reap the rewards

Imperial College Healthcare NHS Trust staff are to receive a special £250 thank you payment in recognition of the contribution they have made in helping the Trust reach all its national targets while it underwent major organisational transformation. The payout has been recommended by the Trust's Chief Executive, Professor Stephen Smith, and is a unique pre-tax payment from the Trust's board. Professor Smith commented: "This has been a challenging year for everyone with the creation of the new Trust and an Academic Health Science Centre which has necessitated major reorganisation. But rather than be overwhelmed, staff across the board have worked through major changes and shown that they can deliver the very best in patient care at the same time, demonstrated by hitting the toughest national targets our organisation has ever seen. On behalf of the board and the executive I wish to offer my heartfelt thanks."

Possible resurrection for Henry Moore sculpture

The Arch, a Henry Moore sculpture dismantled 12 years ago due to safety concerns, could be re-erected at its original site in Kensington Gardens thanks to the latest rock engineering techniques.

Imperial engineers, in collaboration with the International Drawing Institute, Glasgow School of Art, and Tate, carried out a detailed analysis of the Arch to see whether engineering computer simulation and analysis techniques could be used to understand and preserve complex artefacts which experience structural problems.

Moore created the six-metre tall sculpture, modelled on joined up sheep collar bones, in 1980, but it was dismantled into its seven component pieces in 1996 because of structural instabilities.

In order to allow the sculpture to be preserved and resurrected, the team needed to find out why it was structurally unsound. By testing rock samples and using laser scanning technologies to examine the large dismantled stone blocks, they gathered data which was used to generate three-dimensional computer simulations of the sculpture for analysis.

By modelling how the structural stresses exerted pressures on the Arch, researchers found that its unusual shape, the poor location of the structural joints which held the blocks together, and the use of brittle travertine stone all contributed to its unsteadiness.

Using this information, the team believes that it has devised a new method to allow the sculpture to be held together without compromising its structure.

> "We can now apply this knowledge to preserving some of the nation's most important and historic artworks."

Dr John Harrison (Earth Science and Engineering) said: "Rock engineering techniques are usually used for stabilisation of tunnels and rock slopes, but the basic concepts of understanding how rock behaves when it is subjected to loads are immediately applicable to stone sculptures. We can now apply this knowledge to preserving some of the nation's most important and historic artworks."

—Colin Smith, Communications

awards and honours

Nemmers Prize for mathematician

The Frederic Esser Nemmers Prize in Mathematics has been awarded to Professor Simon Donaldson of the Department of Mathematics in recognition of his "groundbreaking work in four-dimensional topology, symplectic geometry and gauge theory, and for his remarkable use of ideas from physics to advance pure mathematics". The prize, worth US$150,000, is awarded by Northwestern University, USA, to researchers who make significant contributions to new knowledge or new methods of analysis.

Student wins prestigious Dr Falk Pharma/CORE bursary

Medical undergraduate Shuang Wang has won the national Dr Falk Pharma/CORE Bursary Award at the British Society of Gastroenterology Annual Conference, and was presented with a £1,000 prize. The annual awards, sponsored by Dr Falk Pharma, an independent pharmaceutical company based in Germany, and CORE, the Digestive Disorders Foundation, were established in 2006 to encourage students and junior doctors to undertake research into gastrointestinal diseases.

US award for Erol Gelenbe

Professor Erol Gelenbe (Electrical and Electronic Engineering) has become the first academic outside of the USA to receive the Association for Computer Machinery SIGMETRICS Achievement Award. The award recognises Professor Gelenbe as "the single individual who, over a span of 30 years, has made the greatest overall contribution to the field of computer system and network performance evaluation". He will deliver the keynote lecture at the ACM SIGMETRICS 2008 Conference on 3 June.

Arthritis researchers win Janssen Award

Two Imperial researchers who pioneered treatments which have helped millions of people with rheumatoid arthritis and other autoimmune diseases have been awarded the prestigious 2008 Janssen Award for Biomedical Research.

Emeritus Professor Sir Ravinder Maini and Professor Marc Feldmann, who have been carrying out research together at the College since the 1980s, were selected for the US$100,000 award by an international committee including Nobel laureates and other world-renowned scientists.

Their research has led to the development of new drugs which tackle the inflammation and tissue destruction caused by rheumatoid arthritis and other diseases including psoriasis and Crohn's disease.

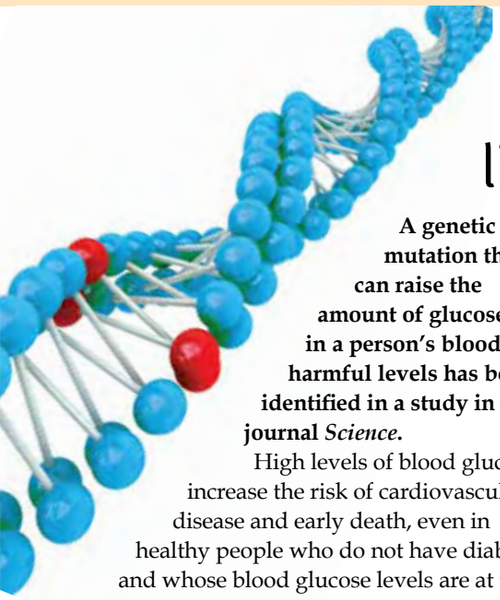
The treatments they developed, now used by millions of people across the world, have proved effective in most patients, even those resistant to all previous treatments.

The breakthrough came when the two professors discovered how autoimmune diseases such as arthritis cause the immune system to fight itself. Their work showed that the key lay in molecules responsible for cell communication, known as cytokines.

> *"The joy of the fruits of our work is that it made a difference to the lives of so many patients"*

Professor Maini said: "Our discovery of anti-TNF therapy for disabling chronic inflammatory conditions was the result of contributions made by many colleagues and collaborators and only possible because of advances in molecular medicine and biotechnology. The joy of the fruits of our work is that it made a difference to the lives of so many patients."

—Laura Gallagher, Communications



Harmful blood glucose levels linked to defective gene

A genetic mutation that can raise the amount of glucose in a person's blood to harmful levels has been identified in a study in the journal *Science*.

High levels of blood glucose increase the risk of cardiovascular disease and early death, even in healthy people who do not have diabetes and whose blood glucose levels are at the higher end of the range considered normal by doctors. One in five people in the UK has a high blood glucose level.

The study, by researchers from Imperial, the French National Research Institute and McGill University in Canada, reveals an association between high levels of blood glucose and a mutation in a gene known as G6PC2 or IGRP.

The research shows that the mutated IGRP gene blocks the action of a sensor called glucokinase. By stopping glucokinase from doing its job, the gene prevents the body from keeping tight control over its levels of blood glucose. Glucokinase works by signalling to cells known as beta cells which then secrete insulin to keep blood glucose levels under control. -Professor Philippe Froguel (Genomic Medicine), lead author of the research, said: "Our study helps unravel the genetic reasons why some people have higher levels of glucose in their blood than others. We hope that ultimately our research will mean we can develop new treatments to stop people from developing high blood glucose levels, which would enable them to live longer and healthier lives."

—Laura Gallagher, Communications

Obesity gene sequence revealed

A gene sequence linked to weight gain has been discovered as part of a new study published in *Nature Genetics*.

Scientists have discovered that the gene sequence is associated with a two centimetre expansion in waist circumference, a two kilogramme gain in weight and a tendency to become resistant to insulin, which can lead to type-2 diabetes.

The sequence is found in 50 per cent of the UK population. The study also shows that it is significantly more common in those with Indian Asian ancestry rather than European.

This could provide a possible genetic explanation for the particularly high levels of obesity and insulin resistance in Indian Asians, who make up 25 per cent of the world's population, but who are expected to account for 40 per cent of global cardiovascular disease by 2020.

"Until now, we have understood remarkably little about the genetic component of common problems linked with obesity, such as cardiovascular disease and diabetes," said Professor Jaspal Kooner, the paper's senior author from Imperial's National Heart and Lung Institute. "Finding such a close association between a genetic sequence and significant physical effects is very important, especially when the sequence is found in half the population.

"A better understanding of the genes behind problems such as diabetes and cardiovascular disease means that we will be in a good position to identify people whose genetic inheritance makes them most susceptible," added Professor Kooner. "We can't change their genetic inheritance. But we can focus on preventative measures, including lifestyle factors such as diet and exercise, and identifying new drug targets to help reduce the burden of disease."

> "Finding such a close association is very important, especially when the sequence is found in half the population."

—Natasha Martineau, Communications

Viagra trialled as potential therapy for sickle cell disease

A major international study to investigate whether Viagra could be used as a therapy for patients with sickle cell disease and pulmonary hypertension has begun at Imperial College London and Imperial College Healthcare NHS Trust.

The study will investigate the effects of sildenafil—commonly known as Viagra—on the symptoms, mechanisms and genetic relationship between pulmonary hypertension and sickle cell.

> "The research we undertake will seamlessly translate into improved patient care for people with these chronic illnesses."

Sickle cell disease is an inherited and lifelong disorder that affects approximately 12,500 patients in the UK. Around 30 per cent of sickle cell patients develop pulmonary hypertension—an increase of pressure in the pulmonary artery which carries blood from the heart to the lungs. Pulmonary hypertension is a serious complication of sickle cell disease which may increase the risk of death by as much as tenfold, compared to patients who have sickle cell disease only.

More than 200 adults and children with sickle cell disease will be recruited by Imperial College Healthcare NHS Trust and two other London hospitals. Nitric oxide relaxes blood vessels thereby reducing pressure in the lung circulation.

Dr Simon Gibbs (NHLI), chief investigator on the study in the UK, said: "The research we undertake will seamlessly translate into improved patient care for people with these chronic illnesses."

—Cassie Zachariou, Imperial College Healthcare NHS Trust

What's the difference between a human and a fruit fly?

Fruit flies are dramatically different from humans not in their number of genes, but in the number of protein interactions in their bodies, according to Imperial scientists who have developed a new way of estimating the total number of interactions between proteins in any organism.

The new research, published in the *PNAS* journal, shows that humans have approximately 10 times more protein interactions than the simple fruit fly, and 20 times as many as simple, single-cell yeast organisms.

This contradicts comparisons between the numbers of genes in different organisms, which yield surprising results: humans have approximately 24,000 genes, but fruit flies are not far behind, with approximately 14,000 genes.

The interaction between different proteins is behind all physiological systems in the human body. When the body digests food, responds to a change in temperature, or fights off an infection, numerous combinations of protein interactions are involved. However, until now it has been impossible to calculate the numbers of interactions that take place within different organisms.

One of the paper's authors, Professor Michael Stumpf (Life Sciences), explains the significance of the new study: "Scientists have believed for some time that the complexity of an organism's protein interactions determine its biological complexity, but until now it's been impossible to put a number on the size of one organism's interaction network compared to another, as relatively little work has been done to identify and map these interactions."

—Danielle Reeves, Communications

DNA clues to reproductive behaviour

A species of wild yeast goes through a cycle of sexual reproduction once in every 1,000 asexual generations, according to new research by Imperial biologists published in the *PNAS* journal in April.

The study focused on the wild yeast *Saccharomyces paradoxus*, which is able to reproduce both sexually and asexually. The scientific team used this yeast to examine how sexual and asexual reproduction cause different types of variations in an organism's DNA sequence. A DNA sequence is like an organism's 'blueprint'—a complete set of chemical instructions needed for it to grow and function.

Different modes of reproduction leave 'signatures' in an organism's DNA sequence.

The researchers analysed the DNA sequences of wild yeast and discovered how infrequently the yeast reproduces sexually by noting the unique 'signatures' sexual and asexual reproduction leave in the yeast's DNA sequence.

One of the authors of the paper, Isheng Jason Tsai, a postgraduate student in the Department of Life Sciences, explains why being able to identify when different reproductive methods have occurred is important: "Finding the unique signatures left by different types of reproduction on the yeast's DNA gives us valuable insights into the life cycle of this species, which is otherwise very difficult to study. This research has shed new light on the study of microbes, and their patterns of reproduction."

> "This research has shed new light on the study of microbes, and their patterns of reproduction."

—Danielle Reeves, Communications

▸ *The paper* Population genomics of the wild yeast Saccharomyces paradoxus: quantifying the life cycle *can be downloaded from:* **www.pnas.org**

UK could become too hot for wine-making

Increasing summer temperatures could mean some parts of southern England will become too hot to grow vines for making wine by 2080, according to a new book written by an Imperial professor.

The author, Emeritus Professor Richard Selley (Earth Science and Engineering), claims that if average summer temperatures in the UK continue to rise as predicted, the Thames valley, parts of Hampshire and the Severn valley, which currently contain many vineyards, will be too hot to support wine production within the next 75 years.

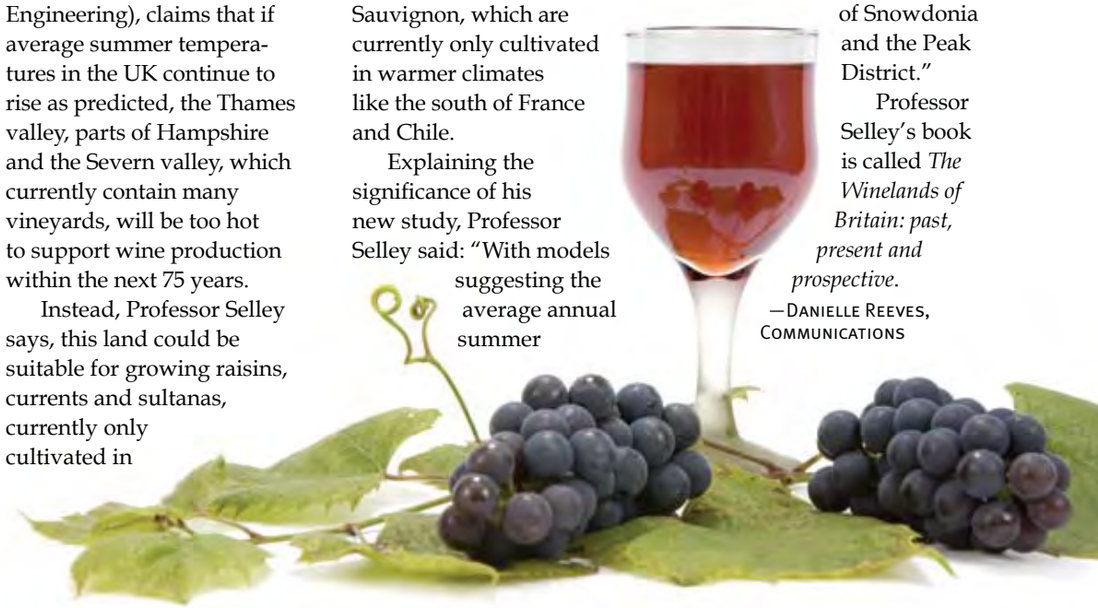
Instead, Professor Selley says, this land could be suitable for growing raisins, currents and sultanas, currently only cultivated in hot climates such as North Africa and the Middle East.

He adds that if the climate changes in line with predictions by the Met Office's Hadley Centre, by 2080 vast areas of the UK, including Yorkshire and Lancashire, will be able to grow vines for wines like Merlot and Cabernet Sauvignon, which are currently only cultivated in warmer climates like the south of France and Chile.

Explaining the significance of his new study, Professor Selley said: "With models suggesting the average annual summer temperature in the south of England could increase by up to five degrees centigrade by 2080, I have been able to map how British viticulture could change beyond recognition in the coming years. Grapes that currently thrive in the south east of England could become limited to the cooler slopes of Snowdonia and the Peak District."

Professor Selley's book is called *The Winelands of Britain: past, present and prospective.*

—Danielle Reeves, Communications



Grand occasion

This year's Postgraduate Awards ceremonies, held on 14 May, were the biggest yet, with 1,634 students and 3,859 guests gracing the seats of the Royal Albert Hall.

The honours

The Awards ceremonies, which took place in the Royal Albert Hall earlier this month, not only celebrated the students' achievements but also the admittance of five Honorary Graduates, a Fellow and a new Associate, to the College (see profiles below). Professor Anthony Evans, a leading researcher in the field of materials science, was welcomed as a Fellow of the College, and an associateship was awarded to Mrs Diana Paterson-Fox, who worked at the College for over 30 years.

> "I am proud to be witnessing the presentation of such talented individuals today"
> **The Rector**

At this year's ceremonies we:

- Used 10 venues
- Hired 88 waiters
- Consumed 37,619 individual canapés
- Drank 6,564 bottles of champagne
- Filled three glass recycling skips

In addition, four Research Excellence Awards were presented, recognising research with significant future potential. Teams supported this year are working on predicting the effects of global warming on biodiversity, extending the capability of the high power fibre laser, developing and applying ultrasound wave theory for non-destructive evaluation, and imaging nanostructured materials to improve materials performance.

Bioengineering PhD student Adam Hill was presented with the Student Award for Outstanding Achievement for his leading role in setting up the charity Operation Frameworks. The charity works with children disabled by congenital and traumatic spinal and limb deformities in the developing world. Speaking on the day, Mr Hill said: "I feel really privileged and honoured to receive this award; it was all the more poignant to be recognised by the institution that has made my passion for this possible. But still, I was a little nervous about meeting Sir Richard up on stage!"

New Associate

Associateships are awarded to former members of the staff, students or persons who have rendered exceptional service to the College.

Mrs Diana Paterson-Fox joined Imperial in 1974 as Academic Secretary of the new Division of Life Sciences, one of the College's first departmental administrator posts. She helped to set up the Imperial College Centre for Environmental Technology, before moving on to the role of Administrator of the Renewable Resources Assessment Group.

New Fellow

A fellowship of the College is the highest award Imperial can bestow on an individual who has rendered significant services to the College or to the community.

Professor Anthony Evans holds the Alcoa Chair in Materials and is also Professor of Mechanical Engineering at the University of California, Santa Barbara. His research focuses on the thermo-mechanical behaviour of high performance load-bearing materials and multi-functional systems.

The celebrity

Amongst the postgraduates celebrating on the day was Queen star Brian May. The legendary guitarist studied astrophysics at the College, and gained his BSc before progressing to a PhD. Dr May's award was particularly notable as he put his academic career on hold to concentrate on his musical ambitions with Queen and was awarded his doctorate more than 30 years after beginning his PhD thesis. Ignoring the tradition of waiting until the end of each section to cheer, staff, guests and students broke out into applause as Dr May crossed the stage, and he rose to the occasion and bowed.

Dr Brian May holds court at his graduation ceremony.

The fashion

For the first time, students had the opportunity to wear the College's new purple robes, introduced following Imperial's independence from the University of London last year, which means the College is now awarding its own degrees. Students had the choice of graduating with an Imperial College London degree or a University of London degree, with around a third opting for an Imperial degree. One of these was Muriel Schneider, who was awarded a PhD in Microbiology. She said: "I really love the new purple gowns, they are definitely more flashy."

The Rector

The ceremony was also Sir Richard Sykes's final graduation ceremony as Rector of the College. He congratulated the graduates, saying: "I am proud to be witnessing the presentation of such talented individuals today and I look forward to following the many contributions to society that you will undoubtedly make in the future."

—Naomi Weston, Communications

▸ *To see interviews with students on the day of their graduation visit:* **www.imperial.ac.uk/news**

Honorary Graduates

Imperial College honorary degrees are awarded to people of conspicuous merit, who are outstanding in their field or who have given exceptional service to the university.

Professor Dame Carol Black entered medicine as a mature student at Bristol University, quickly establishing herself as a respected researcher and clinician, specialising in rheumatology and connective tissue disorders, and in particular systemic sclerosis. She now directs UCL's Centre for Rheumatology.

Mr Bernie Ecclestone is a key figure in the sport of motor racing, working as President and CEO of Formula One Management and Formula One. He moved from competing in races to management, running the Lotus F2 team and then buying the Connaught Formula One team.

Dr Janez Potočnik is the European Commissioner responsible for science and research. His role sees him coordinating European research activities and promoting international cooperation, as well as encouraging greater public understanding of and engagement with science. He became a member of the European Commission in 2004.

Sir John Rose is Chief Executive of Rolls-Royce plc. He joined Rolls-Royce in 1984, was elected to the board of directors in 1992, and took up the role of Chief Executive in 1996 after successfully serving in a number of leadership roles. Sir John was knighted for services to UK industry in 2003.

Mr Guy Weston is Chairman of the Garfield Weston Foundation which provides major support for the artistic, cultural and scientific life of the UK. The Foundation has supported a variety of areas of importance to the UK, including the Wolfson and Weston Research Centre for Family Health launched at Imperial in 2002, which is working to reduce infant mortality and birth defects such as cleft palate and spina bifida.

Passing on the love of science

The Next Generation project provides postdoctoral researchers of all scientific disciplines with the opportunity to help children in disadvantaged areas of London to develop a better understanding of science.

The 12-month voluntary initiative, funded as part of the Roberts Project that supports transferable skills development for PhD students, is being run by Imperial in partnership with Salisbury Primary School in east London. Children benefit from the experimental workshops run by the postdocs who visit once a term for 1-2 days.

Dr Wayne Mitchell, Division of Investigative Science, who pioneered the project after volunteering at the school, explains: "The idea is to reach children when they are young enough and transform the way they view science by making the subject exciting and accessible. At the same time, the scheme aims to empower postdocs by helping them to identify and utilise their transferable skills."

Although no teaching experience is necessary, training is given to all participants by the local school and by a professional teacher trainer from the National Science Learning Centre.

Disseminating science

Catherine Reynolds, an Immunology PhD student at Imperial, has just completed her second workshop at the school with year six pupils. She says: "Teaching is nothing like doing presentations at university where you deliver a polished speech and a flashy PowerPoint. There, nobody would think of interrupting you, talking over you or telling you they don't understand! Working in the school is a great way to build your confidence and learn how to disseminate scientific concepts to all ages."

"the scheme aims to empower postdocs by helping them to identify and utilise their transferable skills"

Role models

Andrea Choppy, Headteacher at Salisbury Primary School, explains another element of the scheme. She says: "What's great is that the postdocs become role models for the children. Some children didn't really know what a scientist was—they had a vision of an old academic—they were very surprised when they found out that a woman could become one too! The scheme shows children at a very early age that being a scientist is a viable career option."

The main difference between the Next Generation project and the INSPIRE scheme, which trains postdocs to become teachers (featured in *Reporter* 191), is that the scheme's aim is not to create teachers, but to pass on scientific knowledge.

—Emily Ross, Communications

▸ *Imperial is currently recruiting up to 15 postdoctoral scientists interested in joining the Next Generation scheme starting in September 2008. For more information please contact: Dr Wayne Mitchell at* **w.mitchell@imperial.ac.uk**

International students feed back

International students were recently given the chance to feed back on their experiences during their first few months at Imperial.

The questions in the International Student Barometer, the largest independent study of international students in the world, sought views on the application process, the international students' arrival at Imperial, their experiences of living and learning as a student, and the support services they had encountered. The aim was to provide a vital insight into student satisfaction levels across all departments.

In their responses, students were able to rate their experiences on a scale of 1 to 4 (1 being poor and 4 being excellent) and were also given the chance to add open comments throughout the questionnaire.

"students are encouraged to apply to Imperial because of its outstanding reputation and because of the expertise of our specialist lecturers."

Summarising the outcomes, Jen Martin, International Officer, said: "Many of the results demonstrate that students are, as we already believed, encouraged to apply to Imperial because of its outstanding reputation and because of the expertise of our specialist lecturers. The average rating for course content is 3.1 and the students' rating for departmental support is also an excellent 3.1. Sports and technology facilities were both also rated extremely highly.

—Becky Manning, Management Trainee

▸ *For more information on the study, or to arrange a presentation of the data relating to your department, contact* **b.manning@imperial.ac.uk**

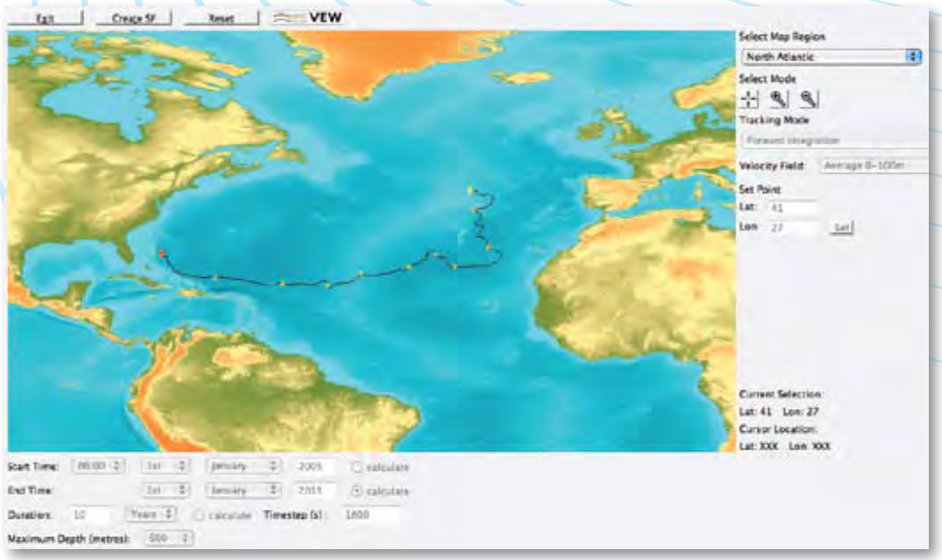
Learning at Work week

Maintaining the well-being of individuals was the aim behind Learning at Work week at the College. Spanning the week of 19–23 May, instead of the usual one day event, this year activities were bigger and more popular than ever. Over 600 staff took part in over 50 different workshops from Indian dancing and Tai Chi to reflexology and jewellery making (pictured).

Coding the waves

Dr Silvana Vallerga has been a visiting scientist in the Department of Earth Science and Engineering (ESE) for the past five years and last month she was appointed as Research Fellow in the Virtual Ecology research group led by Emeritus Professor John Woods.

Reporter's Emily Ross meets with Dr Vallerga to discuss her pioneering project using new software to better understand ecosystems.



Automation by the Virtual Ecology Workbench reduces the time to create and analyse a virtual ecosystem, compared with traditional hand-coding methods.

Can you tell me a bit about your career?

I am Director of Research at the Italian National Research Council (CNR) where I've pursued a career in neurophysics. I have also spent six years at the National Institutes of Health, the medical research agency for the US, where I've done research on plasticity in brain nerve cells. In addition to this, I founded and directed the International Marine Centre at Oristano which specialised in fish vision.

What brought you to Imperial?

One of the CNR's aims is to strengthen and develop research links between Italy and the UK which has led to a longstanding collaboration between the organisation and Imperial, dating back to the 1980s.

Can you tell me more about the project?

The project I have been involved in is funded by the Natural Environment Research Council (NERC) and the European Commission and involves joint working between ESE and the Department of Computing. I'm part of a group of six, headed up by oceanographer, Professor John Woods. My role is to develop and promote the software tool, the Virtual Ecology Workbench (VEW). The VEW creates simulations of the plankton ecosystem anywhere in the world ocean, using data collected from around the world and records of weather during the last 40 years.

What are the benefits of the VEW for research?

Automation by the VEW reduces the time to create and analyse a virtual ecosystem, compared with traditional hand-coding methods. This makes it feasible for research students to address problems that previously would have taken too long to complete in three years. For example, a PhD student in ESE has recently used the VEW to solve a classical problem in fisheries, namely predicting how the weather affects the survival of fish eggs to become adult fish. Other projects have been concerned with the impact of plankton on climate change, and the epidemiology of cholera (a disease of zooplankton that occasionally spreads to humans).

Is the VEW complicated to use?

VEW has been designed to be accessible to anyone—we want non-scientists to be able to use it. The VEW allows biologists quickly to create a virtual community of plankton species. The biological functions of each species are defined by equations derived from laboratory experiments, which makes the biology in the ecosystem totally credible. After these equations are entered into the system, and after specifying the geographical location and dates for the experiment to run, the VEW automatically generates Java code, which can be run on any computer. So the user does not need to have skill in computer programming.

What research is already underway using the VEW?

The VEW can be adapted by groups to meet their needs. The Imperial team provides training and support and often becomes a partner in their projects. Already the VEW is being used for teaching population ecology in Scotland, and for research in biological oceanography at Plymouth, Bermuda and CNR Institutes in Liguria, Sicily and Sardinia. Several groups are using the VEW to test hypotheses about how climate change modifies the geographical distribution of phytoplankton (BIOS Bermuda), zooplankton (SAHFOS, Plymouth), and anchovies (CNR Sicily). The VEW is also being used for theoretical research on population ecology at the Spanish National Institute of Oceanography, and CNR Institutes at Oristano and Genoa.

How do you see the project developing?

The next step will be to combine the VEW with the ICOM (Imperial College Ocean Model, developed by Chris Pain's group in ESE) to simulate the response of the ecosystem to the storms, jets and fronts that make up weather inside the ocean.

▸ *For more information on the VEW visit:* **www.virtualecology.org**

inventors corner

Professor Jo Hajnal

IXICO

Professor Jo Hajnal has 18 years of research experience in medical imaging techniques and is currently Head of the Imaging Sciences Department and the Imaging Physics and Engineering research group at Imperial.

Medical imaging is the process of creating images of the human body, used by clinicians, healthcare professionals and scientists in pharmaceutical and biotechnology companies worldwide.

In 2004 Professor Hajnal co-founded a spin-out company called IXICO to pioneer novel imaging and analysis technology for clinical and pre-clinical trials. IXICO's medical imaging systems can assess the effectiveness of new drugs and detect possible side effects, enabling fast development of valuable treatments for painful or life threatening conditions.

Professor Hajnal found forming the company an exciting and challenging process. He explains: "It was quite complicated at first and we worked extensively with Innovations to create the company. They are now a significant shareholder and are playing a very supportive role in developing the business."

Professor Hajnal and his co-founders Professor Daniel Rueckert, from Imperial, and Professors David Hawkes and Derek Hill, both from UCL, were all intimately involved in the early phase of the company. He says: "Initially we were all directors. We worked well together to drive the company forward and met regularly to refine our business objectives."

Collaboration has been important in the development of the company and is also key to Professor Hajnal's research. The Imaging Sciences Department is based at the Hammersmith Campus where it is closely allied with medical and biological professionals to develop and translate new imaging technologies.

Professor Hajnal believes it is a satisfying area to work in and says his research and business activities are synergistic; they help each other. His research has gradually broadened over the years and speaking of the company's future, he says: "I hope that IXICO can also expand to address new fields of image analysis—not just clinical trials but one day the healthcare area too".

—Michelle Cotterill, Imperial Innovations

▸ *For further information about Imperial Innovations please visit:* **www.imperialinnovations.co.uk** *or contact the technology transfer team on 020 7581 4949.*

Public engagement to be celebrated

One of the photos to be shown at the Outreach Photo Exhibition in June

A new award recognising College staff for their involvement in public engagement activities has been set up by the Outreach Office.

The award will be launched on 11 June at a reception to be held in the Blyth Gallery at the Imperial College Outreach 2008 Photo Exhibition. The exhibition, which opens on 4 June, runs in conjunction with National Volunteers' Week (1-7 June), and celebrates the diversity of Imperial Outreach's activities.

The Rector's Public Engagement Award, worth £2,500, will be given out bi-annually. It will recognise staff who have spent time making research more accessible to public audiences by developing, or participating in, opportunities for people to engage with Imperial's science and its relevance to society.

"The new award and the photo exhibition are great ways for us to recognise the time and effort that staff commit to engaging with public audiences."

Candidates for the new award can either nominate themselves or be nominated by colleagues. The deadline for nominations is 31 July, and the winner will be announced alongside others receiving the Rector's Awards this October.

Mel Thody, Director of Access and Head of Outreach, said: "The new award and the photo exhibition are great ways for us to recognise the time and effort that staff commit to engaging with public audiences."

The Outreach Office runs a diverse range of projects for both staff and students. Over 70 different summer schools took place last year aimed at raising aspirations amongst school pupils.

The Volunteer Centre, which is part of the Outreach Office, attracts over 350 volunteers and has nearly 150 projects for staff and students to get involved in.

A variety of mentoring and tutoring schemes to benefit local schools are also provided by Outreach. The longest running mentoring scheme is the Pimlico Connection, which places around 100 undergraduates as classroom assistants and mentors in local primary and secondary partner schools.

The INSPIRE programme (Innovative Scheme for Postdocs in Research and Education), featured in Reporter 191, enables postdoc scientists to teach science in schools.

Sir Peter Knight FRS will be guest of honour at the launch event. The photo exhibition runs until 13 June in the Blyth Gallery, Level 5, Sherfield Building, South Kensington Campus.

—Naomi Weston, Communications

▸ *To nominate someone for the award please see:* **www.imperial.ac.uk/volunteering/publicengagement**

Rector's Awards

The 2008 Rector's Awards, organised by the Staff Development Unit, Equality and Diversity Unit and Imperial Outreach, are now open for nominations. The awards will be presented to the winners by the Rector at a ceremony to be held on 28 October.

The categories are:

- The Rector's Awards for Excellence in Leadership and Management
- The Rector's Equality and Diversity Award
- The Rector's Mentoring Award
- The Rector's Awards for Excellence in Customer Service
- The Rector's Public Engagement Award

The deadline for nominations is 31 July.

▸ *Further information can be found at:* **www.imperial.ac.uk/staffdevelopment/awards**

Ethical approval of research

The Imperial College Research Ethics Committee (ICREC) is responsible for giving ethical approval of research projects that involve human subjects but fall outside the remit of the NHS. All researchers across the College need to be aware of the process that ensures that the dignity, rights, safety and well-being of all participants are the primary consideration of any research project.

ICREC is chaired by Ram Gidoomal, a lay member of Imperial's governing body, the Council, and includes Imperial academic staff and other professionals from outside the College.

Mr Gidoomal explains that, as well as the obvious need to protect human subjects involved in research, there are a number of other reasons why researchers should obtain ethical approval for their projects.

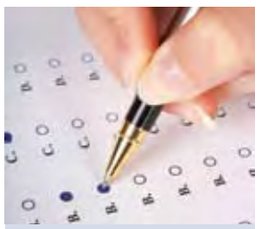
He says: "If they don't have approval, it is unlikely that the College's Clinical Research Governance Office (CRGO) is aware of the study. This means that the study will not be covered by the College's insurance policies and, should something go wrong, investigators will be personally liable. Also, the reputation of the College is potentially at risk if research is undertaken without the appropriate ethical approval."

Not having approval can also affect researchers' chances of getting their work published, as journals may ask for proof of ethical approval before they accept a paper.

Process

Researchers seeking ethical approval of their research should start by looking at the ICREC website where they can find all the necessary forms and information.

The next step is to submit the ethics application form to their Head of Department/Division (HoD) who will see if they can approve the ethics of a proposal without reference to ICREC.



N.B.
Any research involving human subjects, including projects using surveys, needs ethical approval.

There are a number circumstances in which they can do this, for instance, if the research involves the collection or study of existing data. If the HoD gives approval, the application is forwarded to the CRGO. If the HoD feels that there are ethical issues that need further discussion, the application will be forwarded to the ICREC coordinator for submission to the next ICREC meeting.

The committee meets six times a year to review applications, and for each case the group decides whether to approve the application, approve it with conditions, or reject it. In all cases, feedback is provided to the applicants, who are also given the opportunity to discuss the committee's decision with one of its members.

Support

ICREC coordinator, Lucy Parker, is available to meet with researchers on a one-to-one basis to discuss the process, and the committee also provides a number of training opportunities to help researchers get to grips with the process of applying for ethics approval.

—Emily Ross, Communications

▸ *For more information visit:* **www.imperial.ac.uk/research/researchethics**

▸ ***The next training session will be held on 7 July. For further details and a booking form contact:*** **lucy.parker@imperial.ac.uk**

Opening doors to PhD students

Over 750 PhD students visited the Imperial College PhD careers fair held on 15 May in a marquee on the Queen's Lawn.

There were 34 stands for the doctoral students to peruse, featuring a wide range of companies which were actively recruiting. The exhibitors included both large companies such as Credit Suisse and Shell and smaller specialist companies such as Double Negative, which creates visual effects for movies.

Elspeth Farrar from Imperial's Careers Advisory Service said: "The fair presents an opportunity for PhD students from all years to gather information about all types of careers and meet people already working in the sector. It also makes students think about how they can use not only their specialist knowledge, but also the transferable skills they have learnt along the way such as project managing and problem solving.

> "It is interesting to see more and more recruiters developing career entry points specifically for PhD students"

"It is also interesting to see more and more recruiters developing career entry points specifically for PhD students," she added.

Many of the faces on the stands were Imperial alumni such as Jacob Gabay, who studied Materials Science and Engineering. He is now a project manager at Selex Galileo, which provides integrated solutions for airborne sensors, surveillance and protection systems, radar and imaging.

Speaking of the skills he learnt at Imperial he said: "A lot of the course was about analysing information and then being able to represent that in a clear manner so that people will be able to understand it. That was very important and has helped me in my current employment as I look after and organise projects."

—Emily Ross, Communications

celebrating long service

20 years

Mr Terence Carder • Advanced Fitter (Facilities Management)

Professor Sir Magdi Yacoub FRS • Professor of Cardiothoracic Surgery (NHLI)

Dr Mustafa Gurcan, Senior Lecturer (Electrical and Electronic Engineering)

Dr Gurcan has been working as a lecturer in the Department of Electrical and Electronic Engineering since 1988, teaching students about mobile radio operation and designing better communication networks. He is currently part of the Information Systems and Networks Research Group, having moved from the Communications and Signal Processing Research Group as a result of an organisational change. He explains: "Imperial is constantly changing, it is always reviewing itself and ensuring that new research areas are introduced and new groups are formed so we remain competitive." Dr Gurcan's favourite part of his job has been helping 16 students to achieve PhDs. He says: "Working out how to motivate them is an outstanding job." Dr Gurcan particularly likes the freedom the College allows researchers. He says: "We have the support and funds which ensure we produce good quality work. As far as producing results is concerned, Imperial is second to none."

Mrs Alicia Lithgow, Academic Secretary (Chemical Engineering and Chemical Technology)

Born in the Philippines, Mrs Lithgow's interview at Imperial in 1988 was her first since arriving in the UK and she was thrilled to get the position. She says: "The College has changed a lot since I arrived, but I still really enjoy my work. I particularly like the opportunities there are to move around—there is a lot of flexibility." Mrs Lithgow started her career as a secretary in the ICT department before being promoted to senior secretary in the Centre for Process Systems Engineering (CPSE). A few years later she moved to her current job as academic secretary in Chemical Engineering where she acts as the PA for 14 managers. Her role involves a wide range of tasks which include purchasing, giving inductions, ensuring meeting rooms are booked and catered for, and organising conferences—something she particularly enjoys. She comments: "When I was working at CPSE I organised the Roger Sargent lectures. The Rector and all the Pro Rectors attended the last of those I ran, which was a great achievement. I also really enjoy organising the inaugural lectures."

Professor Timothy Williams FMedSci, Head of the Leukocyte Biology Section (NHLI); Campus Dean for the Faculty of Medicine on the South Kensington Campus

Although Professor Tim Williams officially started working at the College in 1988 when he was appointed to the Asthma UK Chair at the NHLI on the Royal Brompton Campus, he had previously worked as a researcher at the Kennedy Institute, St Mary's and Northwick Park before any of these organisations merged with Imperial. In addition, Professor Williams had worked with scientists at Imperial when he was a lecturer at the Royal College of Surgeons, a collaboration which resulted in the publication of two papers in *Nature*. After moving to the NHLI, he and his colleagues discovered a novel chemotactic protein in the asthmatic lung—a moment he pinpoints as one of the highlights of his career. Professor Williams describes how happy he was to join the main campus in 1998 when the SAF Building was opened and how he enjoys the new influx of medics every October. He says: "There is a real vibrancy here, the environment is very stimulating and opportunities for conducting research across the faculties are immense."

40 years

Dr Bernard Lamb, Reader in Genetics (Life Sciences)

Dr Lamb's career at Imperial began 40 years ago in 1968 when he became a probationary lecturer in the Botany Department. He received his Readership in 1988 and continues to lecture today in the Division of Biology. Over the years Dr Lamb has particularly enjoyed getting to know his students. He says: "One year recently, my wife and I had 14 people to a tutees' and project-students' dinner at our house." As a fond music lover, Dr Lamb has enjoyed the series of weekly lunchtime concerts in the Read Lecture Theatre. He is also a wine-maker, a National Wine Judge, and an active member of the Senior Common Room Wine-Tasting Group, going on many wine tasting trips abroad. Another of his passions is for the English language, which led to his role as President of the Queen's English Society. When Dr Lamb retires this July he hopes to complete his book on human diversity as well as a book of limericks, light verse and short stories.

Staff featured celebrate anniversaries during the period of 28 April–27 June. Data is supplied by HR and is correct at the time of going to press.

Obituaries

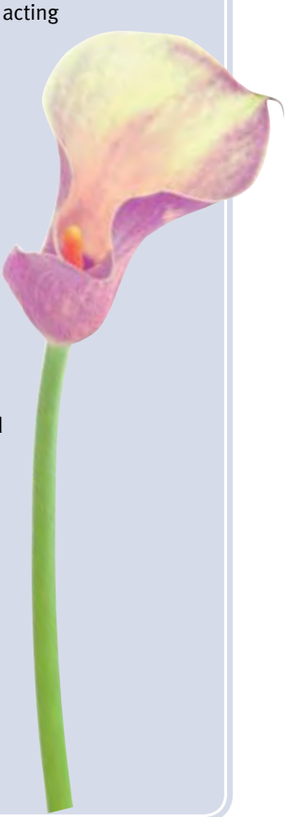
Professor Dennis Anderson •

Dennis Anderson, Emeritus Professor of Energy and Environmental Studies in the Centre for Environmental Policy (CEP), died on 20 April, aged 70. Professor Peter Pearson (CEP) pays tribute to his former colleague: "At 15, Dennis was apprenticed to the Central Electricity Generating Board and studied at Rotherham Technical College. There, a perceptive lecturer recognised his mathematical ability, observing him reading algebra for pleasure on his tram journey to college. These early studies led to a distinguished career as he worked to identify and address the challenges of energy, environment and human development.

Following roles in the Ministry of Technology, Royal Dutch Shell and the World Bank, from 1996 Dennis committed himself to Imperial, becoming Professor of Energy and Environmental Studies. He established the Centre for Energy Policy and Technology in 1998, showing vision and a capacity for interdisciplinary engagement.

In his last decade, Dennis made key policy contributions, advising government on energy reviews and white papers, developing technological options for G8 climate change talks for the Prime Minister's office and acting as executive advisor to the Stern Review of the Economics of Climate Change.

Dennis's former students and colleagues regarded him as a model of decency, commitment and humility. His intellectual vigour and enthusiasm remained undimmed throughout his seventh decade. Had he not been the victim of cancer, there is little doubt that he would have continued to battle for the brighter future which he insisted was within reach."



Let us diagnose your event...

Earlier this month, Imperial's conference team (pictured) kitted themselves out as doctors and headed to the Academic Venue Show at the Business Design Centre in Islington to promote the College's facilities. The team's strategy paid off and the stand attracted over 65 potential customers interested in the 200 meeting spaces on the South Kensington Campus, in addition to the two stylish venues, 170 Queen's Gate and 58 Prince's Gate. The team also gave away goodie bags containing a small stress ball in the shape of a doctor, jelly beans as their pretend medication and a free 'check-up' offer—allowing customers to contact the conference team for venue advice when they plan their next event.

Take note

Sample the handset of the future

Staff and postgraduates are invited to trial a multi-function handset that not only works as a phone, but can be used to purchase items costing £10 or less with Maestro PayPass and to pay for your travel around London with Oyster.

To be part of the trial you must have all three of the following:

- a NatWest personal current account
- an O2 Pay & Go or Pay Monthly contract
- Oyster pay as you go or weekly Travelcard or weekly Bus Pass

The trial is open to 100 people and will be run during June and July in a collaboration between Imperial, MasterCard, NatWest, O2 and Transport for London. To register your interest, text "Wallet" and your full name to 22422. The deadline for signing up is 4 June and places will be allocated on a first come, first served basis.

—Pamela Michael, Communications

welcome

new starters

Mrs Fatmata Akpokiniovo, Student Residences
Dr Saad Alsari, Physics
Mr Panagiotis Angeloudis, Civil and Environmental Engineering
Mrs Insiyah Anjarwalla, Investigative Science
Dr Mansoor Ansari, Chemical Engineering and Chemical Technology
Mr John Armitage, ESE
Miss Monique Arthur, Human Resources
Miss Caroline Ballard, Civil and Environmental Engineering
Mr Frank Barr, Security Services
Miss Janine Beale, NHLI
Dr Eerke Berger, NHLI
Mr Shane Best, Faculty of Medicine
Ms Susan Burnett, SORA
Dr Anna Canato, Business School
Dr Xanthippi Chatzistavrou, Materials
Mrs Lindsay Comalie, Human Resources
Dr Danilo Concas, Division of Medicine
Mr Andrew Copley, NHLI
Miss Lindsey Cumming, NHLI
Mr Piotr Czapski, Faculty of Medicine
Mr Samuel Day Weber, Medicine
Dr Eric De Silva, Chemical Engineering and Chemical Technology
Dr Stephen Dennison, Chemical Engineering and Chemical Technology
Dr Celine Devaux, Biology
Ms Katarzyna Dudek, Kennedy Institute
Mr Marc Eardley, Estates
Miss Hajar Ebrahim-Najafabadi, Physics
Miss Chandrani Edirisinghe Arachchige, Finance
Dr Elizabeth Elvidge, Human Resources
Dr Alistair Foster, Mechanical Engineering
Dr Stephen Fox, SORA
Mr Charles Gallagher, Catering Services
Mr Federico Galvanin, Chemical Engineering and Chemical Technology
Dr Sashikumaar Ganesan, Aeronautics
Miss Lisa Gardner, Kennedy Institute
Ms Tiffany Goodchild, Faculty of Engineering
Dr Michela Groppo, Clinical Sciences
Ms Anna Herasimtschuk, Investigative Science
Miss Joanna Holeniewska, Faculty of Medicine
Miss Arna Irwin, Sport and Leisure Services
Miss Amonrat Jumnainsong, Medicine
Mr Ioannis Kaparias, Civil and Environmental Engineering
Dr Georgios Karagiorgis, Chemical Engineering and Chemical Technology
Mr Sriram Kasthuri, ICT
Ms Lisa Kearey, NHLI
Mr Glenn Keen, Finance
Ms Zubeda Khamboo, Investigative Science
Mr Dee Kistnah, Chemistry
Miss Sara Koops, Chemistry
Mr Amyn Laljee, NMH
Dr Poppy Lamberton, EPHPC
Mr David Langman, Finance
Mr Andrew Learner, Registry
Mrs Gwynneth Lloyd, SORA
Ms Suzanne Louisy, Faculty of Medicine
Mr Kemaljeet Mankoo, ICT
Dr John Marwick, NHLI
Mr Franck Michoux, Biology
Miss Tahirih Mortal, Student Residences
Dr Oliver Niemeier, Chemistry
Dr Yury Nikulin, Civil and Environmental Engineering
Dr Miroslava Novakova, Chemistry
Mr Samir Ounzain, NHLI
Mrs Susan Parker, Physics
Miss Sujata Parmar, NMH
Dr Jaroslaw Pasternak, Physics
Ms Susan Price, Finance
Ms Sarah Prior, NMH
Miss Jolene Retallick, Graduate Schools
Dr Aileen Rowan, Investigative Science
Ms Megan Roy, SORA
Dr Hanno Schaefer, Biology
Dr David Scheschkewitz, Chemistry
Dr Gunnar Schroeder, Cell and Molecular Biology
Mr Martin Selby, Biology
Ms Emily Smith, Faculty of Medicine
Ms Ewa Soltys, SORA
Dr Deepika Sreerangaiah, Kennedy Institute
Mr Mark Thompson, Security Services
Dr Kostas Triantaphyllopoulos, NHLI
Miss Eszter Vag, Medicine
Mr Julian Van-Lare, Finance
Dr Nayna Vyas-Patel, Biology
Dr Owen Waller, Computing
Dr Andrew Whitehouse, NHLI
Ms Farah Williams, Investigative Science
Dr Dazhi Zhang, Chemical Engineering and Chemical Technology
Dr Weimin Zhang, Chemistry
Ms Mei Zhang, Catering Services

farewell

moving on

Dr Juanjo Abellan Andres, EPHPC
Mr Carl Adkin, Medicine
Dr Ayesha Akbar, Medicine
Mr Mattias Andersson, EPHPC
Mr Francis Angibeaud Montjen, Catering Services
Dr Richard Aspinall, Investigative Science (15 years)
Dr Stephen Ball, Cell and Molecular Biology
Ms Helen Banks, Kennedy Institute
Dr Rudi Baron, NHLI
Dr Jayesh Bhatt, Mechanical Engineering
Mr Iain Blain, Medicine (5 years)
Dr Boris Bleijlevens, Molecular Biosciences
Dr Luisa Boldrin, Medicine
Dr Thomas Carruthers, Biology
Dr Qizhi Chen, Materials
Dr Emese Csipke, NMH
Miss Renata Czaja, Student Residences
Dr Tamara Djuretic, NMH
Ms Milja Djurkovic, Investigative Science
Ms Audrey Dumont, Investigative Science
Ms Lorna Edwards, Kennedy Institute (6 years)
Miss Juliana Gomes, Catering Services
Dr Justin Green, Investigative Science
Dr Samantha Hammond, ESE
Ms Emma Heslop, Medicine
Dr Jihye Jang Lee, Molecular Biosciences
Miss Sarah Jeswiet, NHLI
Ms Rie Kagaya, SORA
Dr Eleanna Kazana, Biology
Miss Diana Kelly, Catering Services
Mr Jayson Lim, Student Residences
Dr Yong-Ling Liu, Investigative Science
Miss Rachel Loh, Library Services
Ms Nadine Lossi, Investigative Science
Dr Alexandros Lymperiadis, Chemical Engineering and Chemical Technology
Dr Oisin Mac Conamhna, Physics
Dr Olga Malandraki, Physics
Miss Elizabeth Matheson, NMH
Dr Jinhong Meng, Medicine
Miss Caroline Milton, Sport and Leisure Services
Mr Kevin Newman, Catering Services (19 years)
Miss Mary Ng, Business School
Miss Louise O'Connell, Chemistry
Mr Fernando Ramirez-Martinez, Physics
Mr Mattias Rantalainen, SORA
Dr Emma Redfern, SORA
Dr Camilla Ricci, Chemical Engineering and Chemical Technology
Dr Helen Rippon, Investigative Science (5 years)
Mrs Edie Ruffato, Security Services
Mr Adrian Russell, Biology (21 years)
Mr Ali Salimi, Sport and Leisure Services
Mr Trevor Semple, EEE
Dr Charles Sennoga, Clinical Sciences (5 years)
Mr Asif Shafiuddin, ICT
Miss Punitha Sivamberam, Finance
Dr Lenka Skalska, SORA
Mr Anil Sud, Chemistry
Dr Mingjun Sun, SORA
Mr Steve Twigg, Student Residences
Mr Adam Uttley, Finance
Ms Asimina Vasalou, EEE
Dr Thomas von Schroeter, ESE (11 years)
Miss Precelia Walters, SORA
Ms Hannah Wells, Computing
Miss Naomi Willatts, Library Services
Ms Christine Wilson, Medicine
Mr Jianfeng Yu, Biology
Dr Liqing Zhou, Medicine

retirements

Mr Stephen Fay, Materials (33 years)
Mr Peter Lebby, Security Services

This data is supplied by HR and covers the period 27 April–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 brief comments about new starters, leavers and retirees to the Editor, **e.ross@imperial.ac.uk** *who reserves the right to edit or amend these as necessary.*

moving in. moving on.

what's on

4 JUNE 17.30–18.30

Defects, ions and isotopes: a transport of delight

Professor John Kilner, BCH Steele Chair of Energy Materials, Department of Materials

Inaugural lecture

Clore Lecture Theatre, Huxley Building

☒ **Registration in advance: a.thompson@imperial.ac.uk**

5 JUNE 12.30–13.30

Structural biology of HIV DNA integration

Dr Peter Cherepanov, Senior Lecturer in Virology

Common Room, 7th Floor, Biochemistry Building

☒ **First come, first served**

10 JUNE 17.30–18.30

Climate and climate change in East Asia

Sir Brian Hoskins, Director of the Grantham Institute for Climate Change

Imperial College London China NOW lecture series: part two

Lecture Theatre G16, Sir Alexander Fleming Building

☒ **Registration in advance: events@imperial.ac.uk**

11 JUNE 17.30–18.30

Tuberculosis: from immune control to global control

Professor Ajit Lalvani, Chair in Infectious Diseases

Inaugural lecture

Lecture Theatre G16, Sir Alexander Fleming Building

☒ **Registration in advance: e.powell@imperial.ac.uk**

11 JUNE 17.30–18.30

Understanding cognition by building robots

Professor Murray Shanahan, Professor of Cognitive Robotics

Inaugural lecture

Clore Lecture Theatre, Huxley Building

☒ **Registration in advance: l.brown@imperial.ac.uk**

17 JUNE 17.30–18.30

Prions—a new principle of disease

Professor Stanley B. Prusiner MD, visiting Professor in the Division of Neurosciences and Mental Health

Nobel Conversations: discovering the unexpected (part 3)

Lecture Theatre G16, Sir Alexander Fleming Building

☒ **Registration in advance: events@imperial.ac.uk**

18 JUNE 17.30–18.30

Can a green dragon fly? China's energy challenges and opportunities

Professor Nigel Brandon, Shell Chair in Sustainable Development in Energy

Imperial College London CHINA NOW lecture series: part three

Lecture Theatre G16, Sir Alexander Fleming Building

☒ **Registration in advance: events@imperial.ac.uk**

▸ *All events are at the South Kensington Campus unless otherwise stated.*

Take note

Free ju-jitsu trial

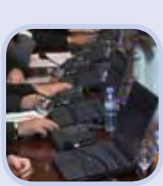
Ju-jitsu is a no-nonsense, practical system of self defence and martial art. The Ju-jitsu club trains in the basement function room of the Holland Club bar, Sherfield Building, each Tuesday from 18.30 and is offering a free introductory lesson and special discounted fees for Imperial staff.

For more information, contact: **seymour_yang@hotmail.com** or visit: **www.imperialjujitsu.co.uk**

volunteering

Help set up a conference

Project:	**Education Conference Volunteers**
Project ID:	**2023**
Organisation:	**Ground Work West London**
Dates:	**1 June–8 July 2008**
Times:	**8.30–17.00 on the conference days (7 and 8 July), in addition to planning dates in June and an end of project workshop**
Location:	**Conference at Imperial College (South Kensington tube), planning in Acton (Turnham Green tube)**



Volunteers are needed to assist with the National Groundwork Education Conference. Groundwork is a regeneration charity which is designed to empower the community to act to improve their own physical and social environment. Groundwork's education programme, One World Schools, aims to lead the way in delivering education for sustainable development and creating sustainable schools for the future. Volunteers will help to deliver the biannual conference, which is attended by approximately 100 delegates including Groundwork education practitioners from across the UK and leading speakers in the area. The volunteers will form an integral part of the conference team and gain key skills in conference delivery. In addition they will gain insight into delivering education for sustainable development across the UK. All volunteers must be aged 18–25.

ⓘ For more information

To take part in a scheme or to hear more about volunteering in general, contact Lucy Mitchell
- **020 7594 8141**
- **volunteering@imperial.ac.uk**

For full details of over 250 volunteering opportunities visit: **www.imperial.ac.uk/volunteering**

Subscribe to the weekly newsletter by emailing: **volunteering@imperial.ac.uk**

Reporter is published every three weeks during term time in print and online at **www.imperial.ac.uk/reporter.**

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