Imperial College London

reporter

Issue 234 ▸ 9 June 2011

Sharing stories of Imperial's community

Night moves

***Reporter* explores Imperial after dark** CENTRE PAGES

FROM MI5 TO COUNCIL CHAIR

Eliza Manningham-Buller's new role at Imperial

PAGE 3

FEATURE FOCUS

Head of Security Terry Branch on keeping the College safe

PAGE 10

HIVE OF ACTIVITY

New additions make a beeline for South Kensington Campus

PAGE 12

EDITOR'S CORNER

New view

Those of you who have spotted the imposter occupying *Editor's Corner*, don't worry – Emily's disappearance is a temporary consequence of her **marriage and honeymoon**, and she will be back soon. In the meantime, taking up the ink-stained **reins of power** has granted me insight into the work of the *Reporter* editor. What has struck me is the sheer range of story suggestions that flow through to the *Reporter* team every day. I've learnt about robots built to move chess pieces, **what bees need** to settle in as new members of the South Kensington community, and the best place to go for mango-based desserts. In researching the main feature of this issue, I've also had my eyes opened to Imperial out of hours, when cramming students, night shift medics and **dancers at dusk** roam across our campuses. The College never sleeps, and it is that buzz that the team behind *Reporter* aims to capture in its pages. On 17 June we'll try to do the same on Twitter, showcasing a **day in the life** of Imperial as part of UUK's Universities Week. Further details are across the page – join us to **tweet your Friday tales**.

JOHN-PAUL JONES, ACTING EDITOR

Reporter *is published every three weeks during term time in print and online. The next publication day is 30 June. Contact John-Paul Jones:* ✉ **reporter@imperial.ac.uk**

Next generation genetics labs open

Imperial scientists are leading the way in genomic medicine, with the help of a new state-of-the-art facility that officially opened on 25 May.

The Molecular Pathology Laboratories, on the Hammersmith Campus, are equipped with two 'next generation' genetic sequencing machines, allowing dramatic improvements in the scale and speed at which researchers can sequence DNA.

Researchers and clinicians are already using the new machines to pinpoint faulty genes in patients with cardiomyopathy – a disease of the heart muscle – and to find genetic causes of familial hypercholesterolaemia, which causes early heart disease.

"The potential of genome science to have a major impact in medicine has been recognised since the completion of the Human Genome Project more than 10 years ago," said Professor Tim Aitman (Institute of Clinical Sciences), Chair of the Molecular Pathology Group. "Now sequencing technology has reached a critical point where the opportunities for translating the science into better individualised patient care are growing exponentially.

The Rector with attendees at the opening of the new lab

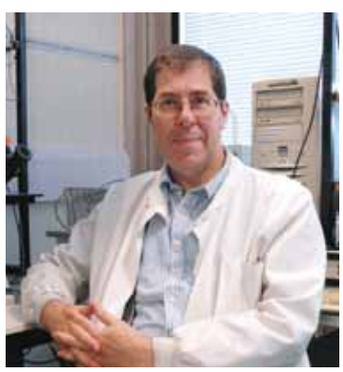
"The new machines sequence about five times as much DNA as previous platforms. It's a huge increase in ability, with little increase in cost."

Work on the new laboratories began in 2009 following a £2 million grant from the National Institute of Health Research. The new machines are the first of their type in a UK research institution.

–SAM WONG, COMMUNICATIONS AND DEVELOPMENT

Fellowship for anaesthetics expert

Professor Nicholas Franks, Head of the Division of Cell and Molecular Biology (Life Sciences) and Professor of Biophysics and Anaesthetics, has been elected a Fellow of the Royal Society in recognition of his research contribution to the field of general anaesthetics.



Professor Franks' seminal research has demonstrated how anaesthetics interact with a small number of neuronal protein targets. He has led the field in identifying these relevant ion channels and receptors, which should help develop new, more selective anaesthetic drugs.

Professor Franks said: "I'm delighted and honoured to have been elected to the Royal Society. It's great that our work on anaesthetic mechanisms has been recognised in this way and I am enormously indebted to many colleagues I've worked with over the years, but particularly my longstanding collaborator, Bill Lieb. I'm also extremely grateful to the Medical Research Council for its long-term support."

Joining Professor Franks as a newly-elected Fellow is Professor Sir Mark Walport, who was Head of the former Division of Medicine at Imperial, and is the current Director of the Wellcome Trust, as well as a Fellow of the College. They join 66 other Imperial staff or associates who have been awarded Royal Society Fellowships.

The Royal Society is the UK's national academy of science. Fellowships are awarded in international recognition of 'contributions to science, both in fundamental research resulting in greater understanding, and also in leading and directing scientific and technological progress in industry and research establishments'.

–SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT

Former head of MI5 takes up College Council chair

Baroness Eliza Manningham-Buller has been appointed Chairman of Imperial's Court and Council with effect from 16 July 2011. The first woman to hold the post and its 11th holder, she will succeed Lord Kerr of Kinlochard, Chairman since 2005.

Baroness Manningham-Buller served as Director-General of the Security Service from 2002–07 and was Deputy Director-General for the five previous years. She worked for the service from 1974 until her retirement, but began her career as an English teacher at Queen's Gate School in 1971. She was made a life peer in 2008, sitting on the cross benches in the House of Lords, and is currently chairman of the Sub Committee on Lords' Conduct. She is a Governor of the Wellcome Trust.

> "I look forward to contributing to the College's growth and continued success"

Baroness Manningham-Buller joined Imperial's Council in 2009 and became Deputy Chairman later that year.

Rector Sir Keith O'Nions said: "Eliza's contributions to our nation have been profound and her appointment as our next Chairman is an honour for the College. Her outstanding leadership skills will be an invaluable asset to Imperial."

Baroness Manningham-Buller said: "I have admired Imperial, but since becoming more closely involved with the College, I have been more impressed by its standards of excellence and the contributions it makes to the UK and worldwide. Imperial's staff and students have a wonderful academic and cultural tradition, and I look forward to contributing to the College's growth and continued success."

Two new external Council members have also been appointed – Iain Conn, Chief Executive, Refining and Marketing at BP and Philip Dilley, Chairman of Arup Group – both of whom are Imperial alumni.

—SIMON WATTS, COMMUNICATIONS AND DEVELOPMENT

Twenty years of bioengineering success

Staff, former staff, students and guests recently celebrated 20 years of bioengineering at Imperial, and the enduring partnership that helped to make it possible.

On 19 May, the Department of Bioengineering hosted a symposium reflecting on the technology, science and people behind its teaching, research and innovation. Among the guests was Sir Eric Ash, who was Rector of Imperial when bioengineering was added to the College's engineering disciplines in 1991.

The event was followed by the inaugural Bagrit Lecture, delivered by Professor Don Ingber, a pioneer of bioengineering and Director of the Wyss Institute for Biologically Inspired Engineering at Harvard University. The new special lecture, which the Department intends to hold annually, recognises the role of the Sir Leon Bagrit Memorial Trust in establishing bioengineering at the College.

Professor Ross Ethier, Head of the Department (pictured), said: "Bioengineering is revolutionising healthcare by providing a deeper understanding of how the body functions and creating new innovative technologies that mimic biology. However, it is only thanks to the vital support from organisations, such as the Sir Leon Bagrit Memorial Trust, that we have been able to make such progress in the last 20 years. We are very grateful to the Trust for their continued support for academic research and student learning."

The Bagrit Centre, which was the forerunner to the Department of Bioengineering, was founded in 1991 with support from the Sir Leon Bagrit Memorial Trust. The Trust continues to provide support to Imperial bioengineers today through undergraduate scholarship schemes, student achievement awards and assistance for academic research. Sir Leon Bagrit, who died in 1979, was a leading British industrialist and a pioneer of automation.

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT

in brief

Internet test-run

Imperial has taken part in the global test-run of a new internet addressing system. Continued expansion means that the world is running out of IP addresses – the unique codes that connect individual users to the internet. To overcome this, a new addressing system, Internet Protocol version 6 or IPv6, has been devised to replace the existing one, IPv4. The College joined major internet providers, including Google, Facebook and Yahoo, to trial a 24-hour switchover to the new system on 8 June.

See the next issue of Reporter *for the full story.*

Imperial in 'tech city'

Last month the Chancellor, George Osborne, announced plans for a new research centre in London's 'Tech City', the planned technology hub in east London. The collaboration between Imperial, UCL and private sector partners will look at how ICT and the development of smart Infrastructures can transform traditional industries such as utilities, energy, transport and healthcare. Further details will be announced later this year.

New Academic Health Science Centre Steering Board

Professor Lord Darzi has accepted appointment as interim Chair of a new Academic Health Science Centre (AHSC) Steering Board. The AHSC is the partnership between the College and the Imperial College Healthcare NHS Trust, established in 2007, integrating teaching, research and healthcare provision. The Steering Board has been commissioned to evaluate the success of the AHSC and to advise on its future direction, reporting in the autumn. For the full College Notice, visit: **http://bit.ly/lRQsom**

> "I booked this little jazz club room here. Roger brought his kit in, I brought a guitar and that was the first time we played together. Something happened... We thought: 'There is some kind of special sound to this.'"

BRIAN MAY ON A PIVOTAL ROCK MUSIC MOMENT AT IMPERIAL, FROM PART ONE OF *QUEEN – DAYS OF OUR LIVES*, AIRED ON BBC2, SUNDAY 29 MAY 2011.

New course addresses need for innovation

Organisations need to adopt innovative approaches to doing business, as they face the triple whammy of intensifying global competition, rapidly developing technologies and diminishing world resources, according to academics behind a new three-day programme at the Business School.

The Managing the Strategic Value of Innovation programme runs from 21–23 November 2011. It is designed to help senior managers decide which innovations their organisation should pursue, for example, in their processes and problem-solving, and how they can best develop and implement these. It will focus on the benefits of innovation, and how it can be used most effectively by existing companies and new start-ups.

Researchers from the Innovation and Entrepreneurship (I&E) Group, who have designed the programme, say that in order to thrive, businesses need to combine entrepreneurial, research and design skills, as well as having the right business model to gain the most value from new ideas.

Head of the Group, Professor David Gann, explains: "In a rapidly changing world, innovation is no longer an option, it is a necessity. Companies that innovate have higher survival during downturns, are more profitable and outpace competitors in periods of economic growth. Success depends upon aligning innovation with your firm's strategy and using the most modern approaches to innovation management".

The Business School is the highest ranked school in Europe for entrepreneurship and the I&E Group collaborates with a number of businesses, investigating the ways in which organisations can use innovation to succeed.

—TANYA GUBBAY, COMMUNICATIONS AND DEVELOPMENT

For further details of the new programme, see: **www.imperial.ac.uk/business-school/executive-education/open-enrolment-programme**

Rector's Awards announced

The winners of the 2011 Rector's Awards for Excellence in Teaching and Research Supervision have been announced, recognising outstanding contributions to teaching, the development of educational programmes and support of research students.

Seventeen staff received Awards for Excellence in Teaching from across the faculties. Among the winners, Zen Makuch (Environmental Policy) and Dr Sandra Shefelbine (Bioengineering) were awarded Rector's Medals for Outstanding Contributions to Teaching, and Dr Jane Saffell (Life Sciences) also received the Rector's Medal for Outstanding Innovation in Teaching. Professors Anthony Bull (Bioengineering) and Andrew Bush (NHLI) were awarded Rector's Medals for Excellence in Research Supervision.

> "The impact that a good teacher can have on their students and their future career direction cannot be underestimated."

Speaking about the awards, Professor Julia Buckingham, Pro Rector (Education and Academic Affairs), said: "The impact that a good teacher can have on their students and their future career direction cannot be underestimated. From the praise in their nominations – written by students and colleagues – it's clear that each of the winners possesses exceptional teaching qualities, inspiring students towards first-class learning achievements, and I congratulate them all on their well-deserved prizes."

The Rector's Medals will be presented at Commemoration Day in October and the full awards will be presented at Education Day in November.

—SIMON WATTS, COMMUNICATIONS AND DEVELOPMENT

Read the full list of winners at: **http://bit.ly/imyLPV**

Silver medal for Imperial engineer

Professor Eric Yeatman (Electrical and Electronic Engineering) has been awarded the 2011 Silver Medal by the Royal Academy of Engineering. He was one of only four engineers in the UK to be awarded the medal, which is presented annually in recognition of outstanding personal contributions to British engineering.

Professor Yeatman, who is Deputy Head of the Department, is a world leader in the field of micro-engineering. This field of research focuses on developing tiny devices, which can be thinner than a human hair, for use in a range of areas including electronics and communications.

Professor Yeatman received the medal during the Academy's annual awards dinner in the London's Guildhall. He said: "I am really honoured to receive the Silver Medal. Any achievements I have made in engineering are also due to the efforts of my colleagues and co-workers, to whom much of the credit belongs."

Professor Stephen Richardson, Deputy Rector, added:

"Eric has played a key role in the creation and growth of the internationally regarded micro-engineering research activity at Imperial. He is an innovative and entrepreneurial engineer who has made many influential contributions in micro-engineering. Eric's combination of engineering insight and commercial vision has made him a sought-after advisor and consultant to large and small companies."

Professor Yeatman has developed microscopic devices that select information encoded in light in fibre-optic cables. He is currently working on tiny energy-harvesting tools that produce electrical energy from movement.

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT

media mentions

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT

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DAILY EXPRESS ▸ 28.4.2011

Lithium could slow memory loss

A cheap anti-depressant, lithium-based drug costing just 2.4p a dose could stave off Alzheimer's disease, reported the *Daily Express*. Lithium helps slow the progression of memory loss, raising the possibility that it could be used to prevent dementia. It has long been prescribed to treat mood swings and bipolar disorder. A study of elderly people found that those who took lithium pills had much better memories after a year than others given a placebo. Professor Allan Young (Medicine) said: "This trial adds to the increasing evidence that lithium may have beneficial effects on the brain." He called for further studies, adding: "Such trials will not be cheap but, were they to prove positive, the possible benefits in health to our ever-ageing population would be beyond any such price."

THE GUARDIAN ▸ *11.5.2011*

Cuts will affect research

Academics are warning the government that cuts to research funding will force scientists to share laboratories, reported *The Guardian*. Researchers say cuts to hardware and facilities budgets would transform scientific research in the UK, with top-end equipment concentrated ever more in elite universities and government centres, and other researchers striking deals to get access to the facilities. "The inevitable outcome is going to be fewer research departments in the UK," said Emeritus Professor David Phillips (Chemistry), President of the Royal Society of Chemistry. "There is a lot of pressure on smaller departments who will see their income under threat," he added.

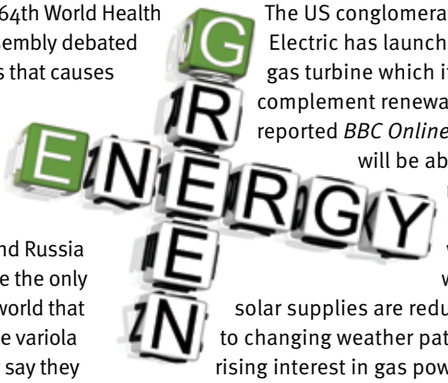
BBC ONLINE ▸ 16.5.2011

Scientists debate smallpox

Scientists at the 64th World Health Organisation Assembly debated whether the virus that causes smallpox, called the variola virus, should be eradicated, reported *BBC Online*. The US and Russia are believed to be the only countries in the world that have stocks of the variola virus, which they say they are keeping to develop effective vaccines and antiviral treatments in case the smallpox virus should arise again, perhaps as a biological weapon. Professor Geoffrey Smith (Medicine), commenting on the current state of smallpox research, said: "It is fair to say the committee had mixed views on whether the research was there or nearly there but not quite."

BBC ONLINE ▸ 25.5.2011

Gas will complement wind power



The US conglomerate General Electric has launched a new gas turbine which it says will complement renewable energy, reported *BBC Online*. The turbine will be able to quickly meet energy demands when wind and solar supplies are reduced due to changing weather patterns. The rising interest in gas power is due to the discovery of large shale gas deposits in the US, making gas more affordable. Professor Robert Gross (Centre for Environmental Policy) welcomed the technology, but warned against relying on gas power instead of renewables, saying: "Development of renewable energy is still essential, since efficiency gains in fossil fuel stations will not be enough on their own to deliver deep cuts in carbon."

awards and honours

NATURAL SCIENCES

NERC governing body

Professor Georgina Mace (Life Sciences), has been appointed to the governing body of the Natural Environment Research Council (NERC), the UK's national funding agency for environmental sciences with a budget of almost £400 million per year. The appointment of new members was announced by David Willetts, Minister of State for Universities and Science, on 17 May.

MEDICINE

British Neuroscience Association President

Professor David Nutt (Medicine) has been elected President of the British Neuroscience Association (BNA), the first Imperial academic and first psychiatrist to hold the position. The BNA has over 1,000 members and represents all aspects of neuroscience in the UK.

ENGINEERING

Advanced awards for undergraduates

Two second year undergraduates have received Engineering Leadership Advanced Awards

as part of the Royal Academy of Engineering's Best Programme. Alexander Karapetian (Computing) and Sarah Tallett-Williams (Civil and Environmental Engineering) received £5,000 each to develop their professional skills while studying at Imperial. The awards specifically support students in the second year of a four-year MEng degree to realise and achieve their goals.

ALSO...

GSK Member of the Year
Professor Brian Spratt (Public Health) has won the 2011 GlaxoSmithKline International Member of the Year Award, presented by the American Society for Microbiology.

Barrett's Oesophagus Campaign
Professor Lord Ara Darzi (Surgery and Cancer) has been appointed patron of Barrett's Oesophagus Campaign, an organisation dedicated to raising awareness of this pre-cancerous condition of the oesophagus.

Society for Endocrinology Medal
Professor Graham Williams (Medicine) has been awarded the 2011 Society for Endocrinology Medal and delivered a plenary lecture at the Society for Endocrinology's Annual Meeting in April.

Red alert for endangered plants

Scientists may need to revise the criteria used to assess whether a plant species is at risk of becoming extinct, if they are to concentrate their conservation efforts on the plants most in need.

That is the view of new research led by Professor Vincent Savolainen (Life Sciences) and Dr Jonathan Davies from McGill University, Canada, published in *PLoS Biology* on 25 May.

According to widely-used criteria, known as the Red List, a species is considered to be at risk of extinction if it inhabits a limited geographical area and has a small population size. Now, thanks to a new analysis of plant specimens from South Africa and the UK, biologists have shown that these criteria also wrongly categorise plant species as at risk, when they are simply new arrivals in an area.

The Red List, which originally focused on the conservation status of species of animals, now includes plants. It suggests that around 20 per cent of flowering plants are at risk of extinction. Deciding which species should have the highest priority for conservation is a difficult process and the new research findings could prove controversial.

Professor Savolainen said: "Our results challenge the application of the same set of threat criteria across living organisms (plants versus animals) and regions (biodiversity hotspots in South Africa versus temperate countries, such as the UK).

> "Our results challenge the application of the same set of threat criteria across living organisms"

He added:"We may need to think of ways to fine-tune the implementation of Red List criteria for rapid assessments of threat – a daunting task that might prove even more pressing given the changes we see in our global environment."

—SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT

New drug treatment for chronic nerve pain shows promise in first trial

A new drug has been shown to reduce chronic pain caused by nerve injury in a trial conducted by clinician scientists from Imperial and GlaxoSmithKline, and published in the *European Journal of Pain* on 14 May.

Chronic neuropathic pain is thought to affect around three in 100 people in the UK. It can result from injury or compression of a nerve, e.g. sciatica, or from diseases that affect nerves, such as diabetes. Current treatments are only partially effective and just help a minority of patients. They also have a number of common side effects, which restricts their use.

Dilmapimod is a novel class of cytokine-suppressive anti-inflammatory drug (CSAID). In a randomised double-blind trial of 50 patients with chronic neuropathic pain, researchers compared the effects on pain relief of dilmapimod with a placebo. Each patient received either dilmapimod or a placebo for two weeks, then received the other treatment in a second period of two weeks, with patients rating the pain that they felt each day.

The results showed a significant reduction in the patients' pain scores in the second week of treatment with dilmapimod compared with the placebo. Furthermore, the study found no side effects associated with the new drug.

Principal Investigator Professor Praveen Anand (Medicine) said: "There is an urgent need for effective treatments for chronic neuropathic pain, which is not being met by drugs available now. We have shown that dilmapimod significantly reduced chronic pain following nerve injury and was well tolerated."

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT

Kitty litter goes green

A greener cat litter has been developed by Imperial researchers, in partnership with a leading pet product supplier.

Currently, the biggest-selling cat litter products are primarily made from clay minerals, such as bentonite and sepiolite, mined and imported from quarries in Mediterranean countries. The products have a significant carbon footprint and high product miles because they have to be transported over long distances.

Now, the Imperial team, working with pet products company Bob Martin, has developed a low-cost cat litter made from waste material sourced from UK quarries. It should be available in leading supermarkets from 2012.

Researchers had to augment the quarry waste material, consisting primarily of limestone fragments, to match the absorbent qualities of minerals used in imported products. The waste material was mixed with an organic binder and a small amount of absorbent polymer, such as that used in nappies, to soak up waste. The ingredients were then mixed and dried to produce a granular cat litter.

Dr Chris Cheeseman (Civil and Environmental Engineering) said: "We had to develop a product that was absorbent and robust enough so that it didn't end up as pulverised dust. We even had to make sure that cat litter did not stick to pussy paws and leave cat tracks throughout the house. On a more serious note, it was great working with Bob Martin and we have developed a potentially world-leading product."

The granule technology used in the new cat litter could be adapted for other applications, including de-icing grits for roads, soil supplements to increase the efficiency of water irrigation, and speciality horticultural products.

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT

African trial questions emergency treatment for shock

Giving fluids rapidly through a drip into a vein (fluid resuscitation), as an emergency treatment for African children suffering with shock from severe infections, does not save lives, according to a major clinical trial led by Imperial scientists.

The groundbreaking research showed that giving children fluids slowly to a sick child who cannot drink, is safer and more effective than rapid fluid resuscitation in aiding recovery. The findings challenge current World Health Organisation guidelines on how best to provide fluids to children in Africa with fever and shock.

The trial, funded by the Medical Research Council and known as FEAST (Fluid Expansion as Supportive Therapy), involved over 3,000 children in Tanzania, Uganda and Kenya. The results were published in the *New England Journal of Medicine* on 26 May.

Chief investigator Professor Kathryn Maitland (Medicine) said:

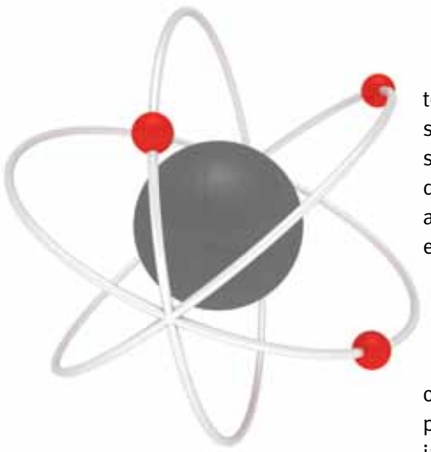
"This is the first time anywhere in the world that fluid resuscitation has been evaluated for safety and effectiveness in such a large trial, even though it has been standard treatment for the last two decades in the United States, Europe and Australasia.

"The FEAST trial was set up with the hope that fluid resuscitation would help the many African children with malaria and septicaemia. Around one in 10 children in Africa admitted to hospital with these deadly infections are in a state of shock.

"Disappointingly, across all parts of the trial, we found that fluid resuscitation had no benefit – our only conclusion is that large doses of fluid are harmful when used for shock in the illnesses we studied."

—ADAPTED FROM A NEWS RELEASE ISSUED BY THE MEDICAL RESEARCH COUNCIL

Electron is well-rounded



Imperial scientists have made the most accurate measurement yet of the shape of the humble electron, finding that it is almost a perfect sphere.

The study, published in *Nature* on 25 May, spanned more than a decade and suggests that the electron differs from being perfectly round by less than 0.000000000000000000000000000001 cm. This means that if the electron was magnified to the size of the solar system, it would still appear spherical to within the width of a human hair.

Researchers from the Centre for Cold Matter in the Department of Physics studied the electrons inside molecules called Ytterbium fluoride. Using a very precise laser, they made careful measurements of the motion of these electrons. If the electrons were not perfectly round then, like an unbalanced spinning-top, their motion would exhibit a distinctive wobble, distorting the overall shape of the molecule. There was no sign of a wobble.

Researchers are now planning to measure the electron's shape even more closely which should help them to study the differences between matter and anti-matter. Anti-matter is an elusive substance that behaves in the same way as ordinary matter, except that it has an opposite electrical charge.

Dr Jony Hudson (Department of Physics) said: "We're really pleased that we've been able to improve our knowledge of one of the basic building blocks of matter and improve our theories of fundamental physics. People are often surprised to hear that our theories of physics aren't 'finished', but in truth they get constantly refined and improved by making ever more accurate measurements like this one".

—SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT

Polypill halves predicted heart and stroke risk

The world's first international polypill trial has shown that a four-in-one combination pill can halve the predicted risk of heart disease and stroke. The trial was conducted by a global consortium including scientists from the National Heart and Lung Institute (NHLI) at Imperial. The results were published on 25 May in the open access journal *PLoS ONE*.

The once-a-day polypill contains aspirin and agents to lower blood pressure and cholesterol. These drugs are currently prescribed separately to millions of patients and are known to cut the risk of disease individually, but many experts believe that combining them into a single pill will encourage people to take the medications more reliably.

> "We now need to conduct larger trials to test whether... this combination strategy improves patient adherence to cardiovascular medication"

The trial tested the effectiveness and tolerability of the polypill in 378 people with raised risk of cardiovascular disease, who did not necessarily have high blood pressure or cholesterol, against a placebo. The participants came from the UK, Australia, Brazil, India, New Zealand, the Netherlands, and the USA, with core funding for the central coordination of the trial provided by the Wellcome Trust.

Professor Simon Thom (NHLI), who led the UK arm of the trial, commented: "We now need to conduct larger trials to test whether these medicines are best provided in the form of a polypill, or as separate medicines, and whether this combination strategy improves patient adherence to cardiovascular medication."

In the UK, around one in three of all deaths are attributable to cardiovascular disease. Globally, around 80 per cent of all deaths from cardiovascular disease and diabetes occur in low or middle income countries, according to recent estimates.

—ADAPTED FROM A NEWS RELEASE ISSUED BY THE WELLCOME TRUST

After hours

While students are revising hard into the night during exam season, a wide range of less well-known Imperial activities takes place after hours on campus and beyond. *Reporter* loaded up on caffeine and joined in with staff and students for a special report into an Imperial all-nighter.

The tills have long shut in the JCR on the South Kensington Campus when a Latin American beat breaks the evening quiet and couples start to samba across the common room floor. It is 19.00 and the beginning of four hours of solid practice for Arman Sahovic (Mathematics), a member of the ICU Dance Club for seven years: "In the evenings we spread out across College to practise. All we need is a wooden or laminate floor and enough space," he says. Curious passers-by, who stop outside the JCR or in the Sherfield foyer to watch the dancers, are an important part of the experience for Arman: "We have to learn to be comfortable performing in front of people, since that's what we'll be doing for competitions".

At 20.00 on the Chelsea and Westminster Hospital Campus, Tania Wan, a fifth year medical student (pictured opposite), is also gearing up for a late night. She is just starting a 12-hour shift on the Labour Ward as part of her rotations. An expectant mother is assigned to her for the duration of the shift. "People ask how you can stay on your feet for so long, but the adrenalin really keeps you going," says Tania. "You want to do everything you can to be useful, to the patient, her partner and to the midwife."

The Rutherford Appleton Laboratory in Oxfordshire, host to Imperial research, emptied out long ago and at 22.00 is quiet, but for Dr Stuart Mangles and colleagues from the Department of Physics making the most of the laser facility they have booked for six weeks. They are using lasers to build particle accelerators that could one day fit in university labs. Accelerators are normally built on a much larger scale, such as at CERN, but Stuart is exploring how a smaller version might operate: "It can take many hours to get all the various parts of the experiment working together, so when they are, it is worth the extra effort to stay late," he says. "This time of night is really great for using the laser: you don't have the heat and vibrations caused by hundreds of people in the building, which can be enough to affect the readings. You have to make the most of the time."

At South Kensington, as midnight approaches, the Library Café is closing and there is a sudden rush of revising students with the munchies, seeking their last latte of the night. Café Supervisor Abhishek Paul (Catering) understands: "I've just finished my MBA at another university, so I'm familiar with the late night revision sessions and the need for some food and drink to keep you going. That's partly why I like working this shift, and I really enjoy working in a busy environment. I start at 16.00 and by the time I get a chance to look at my watch, it's already 21.00."

An hour later and a couple of hundred metres away, the absence of people doesn't mean work has stopped in the Mechanical Engineering Building. At 01.00 the High Performance Computing (HPC) facility is still churning through the calculations it has been tasked with by Imperial academics, one of whom, Dr Jeremy Chittenden (Physics), specialises in plasma physics. His research includes looking at the state of matter at high temperatures, when atoms become ionised to form a plasma. This is an important aspect of investigating nuclear fusion, which has the potential to provide a clean and almost inexhaustible source of energy.

Jeremy explains: "We use the HPC to run 3D visualisations using billions of computational elements to calculate how plasmas flow." The HPC service runs 24 hours a day, seven days a week. Last month alone, the HPC system supported the work of 130 different researchers, running over 5,000 jobs per day and eating up over 110,000 hours of the HPC's central processing units' time. For Jeremy, making the most of this resource means ensuring it has simulations to run throughout the night: "Computers never sleep, so we have to ensure the beast is fed".

Back in the library and Tim Arbabzadah's shot of espresso has powered him through his third year Chemistry revision until 03.00. Even without the caffeine boost he says he naturally has a nocturnal sleep pattern and enjoys late nights and lie-ins, which is helpful during revision time: "It does mean I'm in the library until the early hours, however there are still enough people here for it not to feel too strange. You tend to see the same old faces and because there are fewer people there's more of a relaxed, serene atmosphere."

Eight and a half hours into her shift at the Chelsea and Westminster and Tania's patient appears no nearer to giving birth. At 04.30 she is called away to assist with a caesarean section for another patient. The night shift offers valuable experience, she says: "It's not that often that you get the chance to directly assist with a surgical operation in this way. Because it's quieter at night you get the chance to learn a bit more from the professionals than you would in the busy daytime shift."

Arriving for work a little after 06.00 Andrew Sellick (Post and Distribution Services) finds the College is starting to get a little busier. As he heads to the post room to get ready for the first mail deliveries, Andrew comes across most of the College dawn patrol, which includes fire officers, cleaning staff and various early risers.

However some of his encounters in the early mornings are a little less expected: "Every now and then you do see the Household Cavalry and their horses, walking across campus as part of their blanket ride," says Andrew. The blanket ride is the 06.30 exercise to ensure that riders and horses are limbered up for their duties as the Queen's Life Guard at Horse Guards Parade later in the day.

As Exhibition Road swells with arrivals after 09.00, medic Tania's night is yet to end. Her shift finished an hour earlier but, typically, this was just when things started to happen with her expectant mum. Having spent all night with her, Tania couldn't bring herself to leave. As morning routines unfold across Imperial, Tania helps welcome a new baby boy into the world.

—JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

"Because it's quieter at night you get the chance to learn a bit more from the professionals than you would in the busy daytime shift."

Safe and sound

From protecting the Queen to catching laptop thieves, every day over 100 members of the Security Services team are stationed across Imperial to keep staff, students and College guests safe. *Reporter* spoke to Terry Branch, Head of Security, to find out what it's like to be responsible for the safety of the College.

How long have you been at the College and what did you do beforehand?

I joined the College 10 years ago as a Security Officer and progressed through the ranks, gradually taking on more responsibilities. Although I hadn't worked in Security Services before, I'd spent 14 years serving in the Royal Marines, so I was used to working in a challenging environment.

What does it take to be a security officer at Imperial?

It is completely different from being a security guard in a bank or a shop – the role is much more interactive. It's about being a proactive, approachable, customer-focused member of staff who is available to assist in any kind of situation. When I'm recruiting a new security officer, I look for someone who is approachable, uses their initiative, has good social skills and lots of confidence.

What do security officers do on a typical day?

Security officers work 10 to 14-hour shifts across the campuses. They assist students, visitors and staff, in particular the wardens, accommodation teams and building managers, with a variety of issues. These can include lost property, theft, coordinating fire evacuations and responding to alarms raised by residents in the local area.

How important is training for the team?

When I became Head of Security two years ago, I wanted to ensure that my team members were motivated in their roles and confident in their abilities, so I introduced a dedicated training day every month. Team members get the chance to develop a wide range of skills, for example they attend sessions to learn the best way to deal with conflict and to understand their legal rights when having to intervene physically in a situation. All our officers are trained in first aid and typically deal with a couple of incidents every day, ranging from minor medical ailments to accidents which result in serious injuries.

How are you working with organisations outside Imperial?

Imperial is located in the heart of the South Kensington community, so it's really important for us to work with local organisations. We work closely with the police and, as a result of our relationship, they are actively involved in Freshers' Week – meeting students and their parents, and giving talks on personal safety. I'm also the Vice Chairman for the Knightsbridge and Belgravia Safer Neighbourhood team, which helps me keep up-to-date on local crime concerns.

What is the crime rate like for the College?

Crime has dropped steadily over the last five years. This is mainly due to having better technology, such as swipe access controlling entry into more buildings, plus the use of CCTV cameras across the campuses, which helps us to keep an eye on what is going on. Cycle theft is a problem across London but the College has invested in secure cycle facilities and the Union Shop now sells gold standard cycle locks. These initiatives have helped reduce cycle theft by 40 per cent. Our dedicated investigations officer works closely with the police to solve crimes, and advises staff and students on how to avoid becoming a victim by being more security aware.

The College has hosted a range of public figures from prime ministers to heads of state and the royal family. What's the biggest operation you have been involved in?

When the Queen came in 2007, our role was to coordinate the visit with the police and their search teams, and to ensure the event went ahead without disruptions. It was great to host the visit but, from Security's perspective, the best feeling was at the end of the visit, knowing it had gone without any hitches!

What are you most proud of in your role?

When team members put their training to good use. For example, when officers chased a suspect down to South Kensington, stopped the bus he had boarded and detained him until police arrived. He had laptops in his possession belonging to Imperial students, so he was charged with theft and their property was returned. The training the officers had received gave them the confidence to pursue and arrest the suspect off campus, secure in the knowledge that their actions were within the law.

—EMILY ROSS, COMMUNICATIONS AND DEVELOPMENT

inside* story

mini profile

Martin Archer

Martin Archer speaks to *Reporter* about his dual roles as PhD student and DJ on *Kiss FM*.

How long have you been DJ-ing?

I started on hospital radio when I was 15 and joined IC Radio when I first came here as a Physics undergraduate. By my final year, I'd been nominated for two student radio awards. After graduating, I thought, "let's give DJ-ing a go and see if I can make it". Nine months later, I started at *Kiss* as a DJ, and I'm still there now – I am very, very lucky.

> "A friend suggested that I could work and study part-time, and here I am today"

What prompted your return to science?

I've always maintained an interest in science and enjoyed coveying my passion for it. For instance, I've been combining physics and DJ-ing by creating WiiJing – DJ-ing using Nintendo Wiimotes – and have produced a podcast called *Droppin' Science*, which brings cool and quirky science to a younger audience. A friend, studying for a PhD, suggested that I could work and study part-time, and here I am today.

What's your PhD about?

My PhD is on the size, shape and motion of structures in the magnetosphere. I'm looking at how the structures and waves in the solar wind – plasma that streams off the sun at supersonic speed – manage to get through Earth's magnetic shield. I'm currently focusing on the outer layer of this process, the bow shock, which is rather like the sonic booms you hear when planes break the sound barrier.

What's next for you?

I'm collaborating with the Royal Institution on a live show, *DJ Physics*, using DJ-ing to teach people about the science behind sound, for example, particle physics, waves and frequencies. I'm also presenting *DJ Physics* at the Cheltenham Science Festival, one of Imperial's summer schools and the British Science Festival, and I'm sure more will follow if I can get all my research done. I've taken the *Kiss* motto to heart: 'Never stand still'.

—CAROLINE PREW, COMMUNICATIONS AND DEVELOPMENT

IC-r-us soars

Students from Imperial's Robotics Society are getting ready for the finals of Eurobot, an international robotics competition, having succeeded in the UK rounds. Team members Leon Sim (Electrical Engineering), Ben Homer, Asset Sarsengaliyev and supervisor Richard Inglis (all Computing) write about their success so far.

"The competition is fought between robots, which have been designed and built by student teams to autonomously move playing pieces around a giant chess board in 90-second matches. When a robot successfully moves a piece to a square of the team's colour, the team scores 10 points, with bonus points awarded for completing certain tasks, such as placing a piece on the head of the opponent's robot.

None of us had much experience of robotics, so we lightheartedly named our team 'IC-r-us' after the Greek hero Icarus, patron saint of crashing and burning!

When we and another Imperial team arrived at the UK tournament at Middlesex University, it was clear that the other robots were all bigger, meaner and scarier than ours, and our choice of name seemed prophetic. Nervously, we watched our little robot start its first match. It moved to the nearest pawn, turned and started dragging it home. Next thing we knew, we had our first bonus points – enough to outscore our opponent!

> "We lightheartedly named our team 'IC-r-us' after the Greek hero Icarus, patron saint of crashing and burning!"

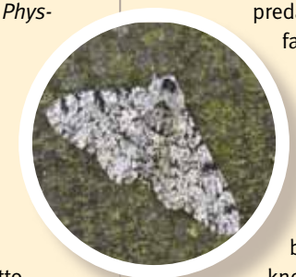
Two matches later we were UK champions, and one of three teams selected to compete in the world finals in Russia in June.

Winning the UK round is a nice result for Imperial, but the real fun has been solving all the engineering problems along the way. Now we face a whole new set of challenges as we try to improve our robot in time for next month's finals."

SCIENCE FROM SCRATCH

As explained by Thea Cunningham, MSc Science Communication

Natural selection



Proposed by Charles Darwin in 1859 as a process by which species evolve, natural selection gradually eliminates inferior species over time. In order to survive, species must adapt to their natural environment. Selection pressures, such as food, predators and disease, steer the direction of natural selection by favouring well-adapted individuals. Individuals that cannot adapt to changes in the environment will die, whereas those that possess traits allowing them to resist or exploit the changes will survive. This advantage is preserved when the surviving individuals reproduce and pass on the advantageous gene. In time, members of a species that possess the advantageous gene become so different from those that do not, that they no longer interbreed and become a new, separate species. The peppered moth (left) is a well-known example. When pollution darkened tree bark in the nineteenth century, light-coloured moths could no longer camouflage themselves against trees as well as dark-coloured moths. Over time, dark moths passed down the gene that made them successful, and light moths became increasingly rare.

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

blog SPOT

Student blogger Chris on

Chocolate and freedom:

"After another hellish exam week I find myself completely void of any necessary task or hindrance. In short: I'm free!!! My summer has yet to begin, as I have an upcoming group project to attend to, but I have no details about what that entails or when it begins, so for now, I can do whatever I like. Prior to exams I had a thing called Chocolate Tuesday, where every Tuesday I would make it a point to make something delicious involving chocolate. With the pain of revision over, it's returned with a bang featuring a project I was thinking about since Easter: the solid Easter egg."

www.imperial.ac.uk/campus_life/studentblogs

Creating a campus buzz

A group of new residents created quite a buzz at the end of May when the South Kensington Campus took delivery of its first beehive.

A nucleus colony of nearly 3,000 Carniolan bees, including a queen, drones and workers, were introduced to the hive, in the Environmental Society's garden behind *Ethos*. 'Moving-in day' was overseen by bee enthusiasts, Bill Davidson and Anthony Mason from Gavin Jones Ltd, the company that maintains the College grounds.

Bill will continue to have a hands-on role, while Environmental Society students, Stefan Piatek and Reuben Gibbons, get to grips with the new arrivals and attend a beekeeping course this summer.

Bees are the most important pollinating insects for food production and are worth around £200 million annually to British agriculture. In recent years, UK populations have declined by around a third, with possible causes including climate change, use of pesticides and disease.

Daniella McManamon (Facilities and Property Management), whose department is funding the beekeeping project, explained that it is part of Imperial's StepChange campaign to promote green initiatives and reduce the College's carbon footprint.

"A lot of StepChange initiatives are large-scale projects operating at the College level and we were looking at ways to get students more involved. Keeping bees allows us to combat a pressing environmental problem and raise awareness of wider green issues at the same time. We hope this sparks off other sustainability ideas for staff and students."

The first batch of Imperial honey should be ready for taste-testing next summer.

—SIMON WATTS, COMMUNICATIONS AND DEVELOPMENT

Fellows Forum kicks off

Earlier this year, the Faculty of Natural Sciences' Fellows Forum held its first event at 170 Queen's Gate on the South Kensington Campus. Dr Jonathan Eastwood (Physics), a research fellow and a member of the Forum's working group, attended together with approximately 40 research fellows from all corners of the Faculty:

"The event started with an informal talk by Professor Maggie Dallman, Principal of the Faculty. She outlined the overarching aims of the forum, which are to improve the experience of being a fellow in the Faculty of Natural Sciences at Imperial, and to provide opportunities for fellows to interact across the Faculty, so as to foster interdisciplinary research. This was followed by a speed networking event.

"I was somewhat nervous at having to talk to lots of people I didn't know, but in the end it was great fun meeting lots of new people. As a physicist, it was refreshing to meet chemists, mathematicians and biologists – all people I don't normally get the chance to interact with – especially because it allowed me to learn a bit more about the wider research world at Imperial.

> "It was great fun meeting lots of new people"

"The final part of the event was an informal talk, with plenty of questions and candid answers, given by Professor Tom Welton, Head of the Department of Chemistry, which was followed by a drinks reception. Everyone left having made new contacts, envisaging new ideas for research and collaboration.

"Overall, the afternoon was a great success thanks to the organisers, particularly Chris Bird and Becky Nadal from the Faculty. It is the first of what is expected to be a continuing series of Fellows Forum events, supported by a website and online discussion forum."

For more information on the Forum please visit: **http://bit.ly/k4dP3m**

INVENTOR'S CORNER

Virtual training

Dave Taylor (Surgery and Cancer) is programme lead for the Virtual Worlds and Medical Media Group and runs the medical media and design laboratory, which researches and develops virtual world technology. After an early career in the software and electronics industry, he joined Lord Darzi's team at St Mary's Campus in 2008.

What have you developed?

We have created a set of simulations using clinical environments and virtual patients, that can be accessed using freely available software and a broadband connection. We use online 'virtual worlds', such as Second Life, to create these simulations, which are set up so that you can create a scenario without being a programmer.

What stage is the research at?

The development team includes people with skills in 3D design, storytelling, web services, business modelling, community management and film making, alongside several of the Department's medics, research fellows and psychologists. We have also worked with specialist paramedic trainers, A&E and army doctors and other experts, to develop realistic, digital, virtual hospitals, major incident scenarios and patients that

respond realistically to medical tests and interventions.

Where do you hope this research will be in five years?

Our goal is to enhance the range of training available to multidisciplinary medical teams. We envisage virtual operating theatres with virtual patients, based on sophisticated physiological models that can be accessed by dispersed teams anywhere and anytime.

What are the advantages of your system?

It allows easy collaboration; people from all over the world can log in to the virtual world and train together; eliminating any costs for travel and logistics. In addition, we have the ability to stage scenarios in the virtual setting, such as pandemic virus outbreaks, which would be impossible or fantastically difficult to simulate in the real world.

—GAVIN REED, IMPERIAL INNOVATIONS

course review

By course attendee Angela Dorman, Administrative Assistant and Receptionist in the Estates Division.

Harassment – confronting inappropriate behaviour

❶ Why did you go on the course?

I went on the course to think a little more about what the terms 'bullying' and 'harassment' actually mean, and to identify the difference between them. I also wanted to develop an understanding of the reasons why individuals sometimes resort to this particular kind of behaviour, and to be able to identify and deal with such situations if they arise.

❷ What did you learn?

I think the main thing I learnt was that people's definitions of bullying and harassment differ a great deal, depending on the environment they work in, cultural differences, mindsets and perceptions.

❸ Why would you recommend it and for whom?

I would recommend this course because it helps people to identify what is unacceptable behaviour in the workplace, and feel confident that they know when to challenge this. Everyone at the College should consider attending but I found it particularly helpful in my customer-focused role. I am the first point of contact for a wide variety of people coming into the College, so strategies for working with them effectively will be really useful.

For more details on the course see: **www3.imperial.ac.uk/staffdevelopment/equality/workshops/harassment**

Chemistry **fireworks**

The Graduate Schools hosted their annual live chemistry show, *The Elements: From Bigger Bang to iPad*, last month. Over 250 postgraduate students experienced explosive demonstrations, including a phosphorous sun and hydrogen-filled exploding ostrich eggs. Sam McKenney (Human Resources) sneaked in to report on the event:

"I've always enjoyed chemistry shows, and knew I was in for a good one when the demonstrators turned up in their impressively tie-dyed lab coats. One of the most interesting musical experiences I've ever had, was thanks to some experiments with helium and sulphur hexafluoride at the event. Everyone knows helium raises your voice pitch significantly, but people might not know that sulphur hexaflouride does the opposite – making the demonstrators' performance of Bohemian Rhapsody very memorable.

Another thing the audience won't forget is the impressive fireballs created using hydrogen and oxygen. When the two elements are mixed at the correct ratio, the ignition of the mixture results in an exothermic reaction and a satisfyingly huge bang (pictured).

Everyone was kept on the edge of their seats throughout the experiments. I really enjoyed the show. It wasn't just about the pyrotechnics and the spectacle – you were able to understand some of the science behind it."

Mango madness

Elizabeth Atkin (Communications and Development) reports on her visit to MADD, a Soho restaurant serving nothing but mango-based desserts, which was set up by Ralph Monthienvichienchai, a Business School alumnus (pictured above left).

"Getting through Friday afternoons can be tough but the end of one week in May was an exception. A delicious, fruity exception, as I'd been tasked with visiting MADD to meet its founder and sample some of its desserts.

A self-confessed 'massive, massive mango fan', Ralph's enthusiasm for the fruit is infectious. He explains: "There's just so much more to mangoes than the ones you find in the supermarket: the variety is endless and they're so indulgent!"

MADD is meticulous in sourcing the very best mangoes according to the season, and uses different varieties of mango for different purposes. The sweetest mangoes from Asia are used to make mango puree, whereas firmer specimens from South America are served on the plate as fresh mango cubes.

Ralph's advice for Imperial's student entrepreneurs: "It can be really tough to start your own business, especially in London. Research and first-hand experience are absolutely crucial, as well as experience of the industry you want to work in."

Arriving back at the office laden with mango desserts, the consensus among my colleagues is that MADD's most popular dish – sticky rice with mangoes – is the dessert of choice, with mango mousse a close runner-up.

So, have I left MADD with a M-ango ADD-iction? Yes. But I'm open to invitations should anyone need me to sample other fruit-based desserts."

long service

Reporter features staff who have given many years of service to the College. Staff listed below celebrate anniversaries in the period 23 July–2 August. Data is supplied by HR and is correct at the time of going to press.

—JESSICA ADAMS, COMMUNICATIONS AND DEVELOPMENT

20 years

- Mr John Oakeshott, Department Operations Manager (EEE)

40 years

- Mr Mike Harbour, Technician (EEE)

SPOTLIGHT

Professor Sir John Pendry, Chair in Theoretical Solid State Physics (Physics)
30 years

In 1981, Professor Sir John Pendry joined Imperial from Cambridge University. This month, he celebrates 30 years as a member of the Department of Physics, where he was its Head from 1998–2001 and its Associate Head from 1984–92. John is best known for his work on new optical materials, which led him to design a series of artificially engineered materials called 'metamaterials'. These new materials proved it is possible to create an invisibility cloak, an idea previously relegated to the realm of science fiction. He has received numerous national and international accolades for his research, including a knighthood in 2004 and the Royal Society's Royal Medal in 2006. John says, "Like many scientists I've devoted much of my career to building up crucial foundational knowledge of my discipline. Without this essential spadework, I would never have been able to develop the theories that became such an important part of my research." Describing the passion he feels for his job, he adds: "Working at Imperial has allowed me to pursue untrammelled research and think about physics as much as I want."

Lights, camera, action!

Colin Grimshaw on his 45-year career behind the camera at Imperial

When did you start working at Imperial?

I joined in 1965 as a Junior Technician in Electrical Engineering and almost immediately started working with the great and much missed, Professor Eric Laithwaite. It was good fun and I learnt a lot from one of the best presenters of science, especially on television.

Who are the most memorable people you've recorded?

I've worked with some of the greats and have met so many Nobel Prize winners, I can't count them all. I also met the man who designed the casing for one of the first British atomic bombs and, through my involvement with stoic tv, Dame Edna Everage – that sure was fun!

What's changed most over 45 years?

What hasn't changed is Imperial's reputation. It's still recognised throughout the world as a leader in the subjects it teaches, and research is as strong as ever. The students have changed though – when I joined, most of them wore ties and jackets! The South Kensington Campus was also in the middle of a major rebuild at that point, with a huge empty space where the Sherfield Building and Library now stand.

What has been the appeal of working with video?

When I started working with what was then called CCTV (closed circuit television), no-one outside industry, universities or broadcast TV had access to such equipment. It was not only new but unique.

What are you planning for your retirement?

Funnily enough, I've just returned from one of my yearly trips to Australia, where I updated my camcorder. And I've made my first Blu-Ray ray HD disc from a full, edited version of the footage I shot. So, I'm keeping my skills up-to-date with new technology.

Colin retired from the Communications and Development Division earlier this year. Read more about his time behind the camera on his blog: **www.imperial.ac.uk/blog/videoarchive**

A career in pictures (From the top): On location at a Cornish mine in 1988; recording in 2010; Colin (second from the left) in his original studio in 1967.

Welcome
new starters

Mr David Abbott, Registry

Ms Sofia Abrahamsson, Medicine

Dr Salvador Acha Izquierdo, Chemical Engineering and Chemical Technology

Miss Naima Ali, Clinical Sciences

Mr Waqar Ali, Life Sciences

Mr Mohamed Ameen, Faculty of Medicine

Dr Maria Angelopoulou, EEE

Mrs Afra Asim, Chemical Engineering and Chemical Technology

Mr Philip Badman, Surgery and Cancer

Dr Julie Balen, Global Health Innovation

Miss Runa Begum, EYEC

Mr Jack Bertrand, Bioengineering

Dr Sujit Bhattacharya, EEE

Dr Ellen Bible, Materials

Ms Brigid Buckley, EYEC

Mr Niall Burke, NHLI

Miss Laila Cancian, Medicine

Mr Mark Carter, NHLI

Dr Eris Chinellato, EEE

Dr Susannah Clarke, Civil and Environmental Engineering

Miss Roisin Collins, Accommodation

Dr David Connell, NHLI

Miss Rebecca Cosgriff, Faculty of Medicine

Dr Emanuele Cotroneo, Medicine

Dr Aliakbar Dariush, Physics

Dr Sonia De Oliveira Barbosa, Medicine

Miss Caroline Detchenique, Faculty of Engineering

Ms Julieta Dourado, Public Health

Mr Martin Eder, Civil and Environmental Engineering

Dr Cecile Evrin, Clinical Sciences

Miss Helen Ewles, Medicine

Mr Felix Frank, Physics

Dr Mathilde Gendrin, Life Sciences

Miss Rebecca Ghosh, Public Health

Miss Samar Ghourab, Medicine

Ms Rajvinder Gill, Materials

Mr Rajesh Govindan, ESE

Miss Aleksandra Gwozdz, Sport and Leisure

Dr Kyoko Hamada Hiragami, Medicine

Ms Hyacinth Henry, Medicine

Mr Andrew Hogben, Medicine

Miss Julia Hogg, Faculty of Medicine

Mr Matthew Katz, EEE

Miss Skye Kelly-Barrett, NHLI

Miss Tiffany Key, Environmental Policy

David Abbott, Admissions Administrator, joined the Registry in early May from the University of Exeter, where he had worked in student funding. His position at Imperial involves assessing applications for courses in the Faculty of Natural Sciences which includes looking at applicants' academic credentials and checking they meet the College's English language requirements. He says: "I was attracted to the job by Imperial's reputation as a great place to work. I've especially enjoyed the buzz and hive of activity within the Registry."

Dr Lemonica Koumbi, Medicine

Dr Pei Lai, Surgery and Cancer

Dr Ling Li, Computing

Dr Qiao Li, Public Health

Dr Dafydd Lloyd, Surgery and Cancer

Mr David Looney, EEE

Miss Alice Lowry, Library

Mr Christian Malaga Chuquitaype, Civil and Environmental Engineering

Dr Silvia Martin Almedina, NHLI

Dr Andrew McKinley, Chemistry

Miss Kay McNamee, Kennedy Institute

Miss Lucy Minks, Registry

Dr Sara Mitchell, Life Sciences

Dr Gareth Morgan, ESE

Mr Henrik Morgen, International Office

Mr David Moxey, Aeronautics

Dr Tendai Mugwagwa, Public Health

Mr Khalid Nur, Civil and Environmental Engineering

Mr Alexander Papadopulos, Life Sciences

Dr Sue Patterson, Medicine

Mr Matthew Penny, Chemistry

Mr Adam Phillipson, Life Sciences

Dr Mafalda Pinto Baptista Lopes Da Silva, NHLI

Mr Alexander Plato, Physics

Dr Kar Poon, NHLI

Miss Sally Preston Wells, Faculty of Engineering

Ms Marta Pyzio, Medicine

Miss Sunreet Randhawa, Surgery and Cancer

Dr Prasun Ray, Mechanical Engineering

Miss Julia Sadowski, Business School

Miss Lauren Scally, Library

Mr Nigel Scammell, Public Health

Dr Sylvain Sebert, Public Health

Dr Nicholas Silver, NHLI

Dr Alan Simm, Medicine

Dr Anamika Singh, NHLI

Dr Timothy Smallie, Kennedy Institute

Dr Jerome Sohier, NHLI

Mr Brian Sorohan, Environmental Policy

Dr Timothy Sprosen, Public Health

Mr Edward Stott, EEE

Dr Paul Sullivan, Medicine

Dr Frauke Thrun, Chemistry

Dr Sergiy Tokar, NHLI

Dr Ravi Vaidyanathan, Mechanical Engineering

Ms Rianne Verschoor, Faculty of Engineering

Dr Regula Von Allmen, Surgery and Cancer

Mr James Warren, Accommodation

Dr Charlotte Wilhelm-Benartzi, Surgery and Cancer

Dr Clara Wilkinson, ESE

Farewell
moving on

Dr Tiziano Agostinelli, Physics

Mrs Mary Anderson, College Headquarters

Mr Gebreselassie Asefa, Life Sciences

Dr Carlos Avendano Jimenez, Chemical Engineering and Chemical Technology

Dr Mark Bannister, NHLI

Miss Coreen Beckford, Medicine

Mr Barry Bennett, Kennedy Institute

Dr Eerke Berger, NHLI

Miss Hemini Bharadia, Business School

Ms Jane Brock, Medicine (7 years)

Professor Jan Brosens, Surgery and Cancer (10 years)

Dr Annalisa Bruno, Chemistry

Dr Luke Chipperfield, Physics

Dr Lindsey Clarke, Bioengineering

Mr Navin Cota, EEE

Dr Robert Craven, Computing (5 years)

Professor Andrew de Mello, Chemistry (14 years)

Mr Tisham De, Public Health

Mr Vashist Deelchand, Surgery and Cancer

Mr Reza Djanani, Medicine

Dr Joseph Footitt, NHLI

Miss Sophie Ganjavian, NHLI

Dr Belinda Garner, EEE

Dr Philipp Geipel, Mechanical Engineering

Dr Marco Genoni, Physics

Dr Paul Goulart, Aeronautics

Dr Sarah Graham, Life Sciences (5 years)

Mrs Linda Green, NHLI (11 years)

Mr Neil Gregory, Faculty of Medicine

Mrs Sandra Griffiths, ICT (5 years)

Dr Kingsley Ho, Aeronautics

Ms Nina Iszatt, Public Health

Dr David Jones, EEE

Dr Hazel Jones, Medicine (11 years)

Mr Lawrence Jones, Library (7 years)

Miss Joana Kettner, Chemical Engineering and Chemical Technology

Dr Peter Kollensperger, EEE

Mr Venkat Krishnappa, ICT

Dr Sara Lamas Oliveira Marques, Life Sciences

Mr Ben Lavender, Surgery and Cancer (17 years)

Mr Akos Lokai, Catering Services

Dr Rosa Lopez-Cobollo, Life Sciences

Dr Pierluigi Mancarella, EEE

Dr Konstantinos Manolarakis, Mathematics

Miss Katie Mertens, Chemistry

Miss Samantha Mirczuk, Surgery and Cancer

Mr Samuel Mitchell, Chemistry

Dr Simon Moon, Mathematics (5 years)

Mr Darren Moon, Business School

Miss Amy Murphy, Medicine

Mrs Nikki Newman, NHLI (6 years)

Ms Ukachi Nwosu, ICT

Dr Benjamin Pierre, Chemical Engineering and Chemical Technology

Mr Sandeep Potnis, ICT

Dr Rohini Rana, Life Sciences

Dr Anna Reed, NHLI

Ms Derval Reidy, Medicine

Mr Christopher Rhodes, Medicine

Miss Gina Sanchez Canon, Medicine (4 years)

Dr David Scheschkewitz, Chemistry

Mrs Rehana Sethna, Library (9 years)

Dr Thomas Siegel, Physics

Dr Caglar Sinayuc, ESE

Mr William Sonnex, Computing

Dr Dee Sreerangaiah, Kennedy Institute

Dr Deepa Srinivasan, Surgery and Cancer

Miss Rebecca Tanner, NHLI

Mrs Amy Thompson, Communications and Development (6 years)

Dr David Thornley, Computing

Dr Stephen Till, NHLI (12 years)

Dr Marcela Vizcaychipi, Surgery and Cancer

Dr Simon Waschke, Physics

Dr Richard Winkle, Surgery and Cancer

Mrs Lesley Winstanley, Registry

Ms Sandra Wragg Miller, ICT

retirements

Mr Christopher Jerrard, Mechanical Engineering (48 years)

Mr Richard Oxenham, Bioengineering (39 years)

This data is supplied by HR and covers the period 18 April–22 May. 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.

moving in. moving on.

events highlights

FOR COMPLETE DETAILS:
www.imperial.ac.uk/events

9 June 2011

21 JUNE ▸ PUBLIC LECTURE

From autoimmunity to zebrafish – an immunologist's view of the world

Our body's ability to generate immune responses to invading pathogens is vital, yet inappropriate responses can lead to debilitating or life threatening conditions, such as diabetes. As our understanding of disease increases, we find that uncontrolled inflammatory responses are associated with conditions as diverse as Alzheimer's disease and obesity. Professor Maggie Dallman, Principal of the Faculty of Natural Sciences, talks about her career and research in the 2011 Athena Lecture, which celebrates the achievements of women in science, technology and medicine.

22 JUNE ▸ INAUGURAL LECTURE

Can we freeze time? Laser adventures in the realm of the nano-nanosecond

A measurement revolution is underway. Laser-based 'cameras' capable of freeze-framing motion at the nano-nanosecond timescale are being developed to 'film' the high-speed motion of electrons in matter. These motions – observed directly for the first time only recently – determine how physical and chemical changes occur at a fundamental level. In his inaugural lecture, Professor John Tisch (Physics) describes the research that will have an impact in the fields of physics, chemistry and eventually biology, as well as in nano and material science.

13 JUNE ▸ PUBLIC LECTURE

Energy: perspectives from an MEP

Maria da Graça Carvalho, MEP

14 JUNE ▸ SEMINAR

Asset prices in general equilibrium with transaction costs and recursive utility

Grigory Vilkov, Goethe University, Frankfurt

14 JUNE ▸ SEMINAR

Unusual ways of acquiring zoonoses

Dr Daniel Shapiro, Lahey Clinic, USA

14 JUNE ▸ MUSIC

Lunchtime concert

The Coull Quartet

14 JUNE ▸ CONFERENCE

Neuroscience Technology Network Symposium

Keynote by Professor Matteo Carandini, UCL

15 JUNE ▸ PUBLIC LECTURE

Neurotechnology: plugging your brain into a robot

For students in years 11–13

16 JUNE ▸ SEMINAR

Integrating infection prevention into healthcare delivery

Annual scientific meeting of the National Centre for Infection Prevention and Management

16 JUNE ▸ SEMINAR

Next generation sequencing: a revolution for cardiovascular genetics

Professor Christine Seidman, Harvard

17 JUNE ▸ CONFERENCE

Genetics and genomics of cardiovascular biology and disease

BHF Centre symposium

20 JUNE ▸ SEMINAR

Using genomics to study host/pathogen interactions

Professor Gordon Dougan, Wellcome Trust Sanger Institute

21 JUNE ▸ CONFERENCE

Chemistry taster day

For Chemistry A-level students

21 JUNE ▸ INAUGURAL LECTURE

Molecules, maternity and mortality

Professor Catherine Williamson (Surgery and Cancer)

21 JUNE ▸ PUBLIC LECTURE

Alternative energy: is it an appropriate investment domain for entrepreneurs?

Panel members include Justin Adams, BP Alternative Energy

23 JUNE ▸ SEMINAR

Can innovation improve productivity in healthcare?

Professor Rifat Atun (Business School)

30 JUNE ▸ OPEN DAY

Science and Engineering Open Day

Departmental sessions and tours

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take note

Vote for OPAL

The Imperial-led OPAL (Open Air Laboratories) project is through to the semi-finals of the National Lottery Awards 2011. The initiative encourages people to get in touch with nature and generate valuable scientific data concerning the state of the environment.

To vote visit **http://bit.ly/lIkGDo**
or call 0844 836 9694
before 20 June.

MEET THE READER

Liz Howard (College Headquarters)

What are you doing in the picture?
I'm eating my lunch in the 'secret garden' behind Weeks Hall. I always try to get away from my desk for lunch when the weather's nice.

What would you do if you were editor of *Reporter* for a day?
I'd take the opportunity to find out about an area of the College that I really don't know much about, like the evening classes provided by the Department of Humanities. I've been meaning to do one of their classes ever since I started, but never quite got round to it!

Who would be your cover star?
I think it would be the guys from the Postdoc Development Centre. I don't think I've ever heard so many positive comments about any team, from people all around the College. Plus, they make these snazzy desk calendars that I find really useful, so it would be a nice thank you to them!

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**

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