Imperial College London

reporter

Issue 214 ▸ 22 January 2010

Sharing stories of Imperial's community

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EDITOR'S CORNER

Imperial spirit

Forget the trials and tribulations of the snow, the forthcoming election and the takeover of Cadbury; nothing has occupied recent conversation across the College as much as the Imperial team's triumph in their first quarter-final of ***University Challenge***. Earlier this week the Imperial team, comprising captain Gilead Amit (Physics), Simon Good (Physics), Ciaran Healy (Chemistry) and Benedict Nicolson (Maths), thrashed Edinburgh University in a one-sided **battle of the brains**. The team answered question after question correctly, impressing viewers with their knowledge of almost every subject thrown at them and even prompting an uncharacteristic smile from the host, Jeremy Paxman. And as the gong sounded to mark the end of the show and Imperial won with 240 points, I couldn't help feeling proud to be part of Imperial. As student blogger Corrie aptly put it "I found out while watching it that **I do have Imperial Spirit, in bucketloads.**" If you haven't watched the show or want to relive the glory visit: **bbc.co.uk/i/qbv9g**

EMILY ROSS, EDITOR

Reporter is published every three weeks during term time in print and online at **www.imperial.ac.uk/reporter**. *The next publication day is 11 February. Contact Emily Ross:* **reporter@imperial.ac.uk** *+44 (0)20 7594 6715*

Boris Johnson opens Prince's Gardens

The Mayor of London, Boris Johnson, visited the South Kensington Campus on 15 January to officially open the newly restored Prince's Gardens, marking the culmination of a seven-year project.

The £160 million investment has seen the construction of seven new halls of residence and a state-of-the-art sports centre, plus the landscaping of the gardens themselves.

During his visit, the Mayor visited the Gabor hall of residence and met a group of students who showed him around their communal kitchens. He opened the square with a speech and unveiled a plaque.

> "[Imperial] is London's true seat of wisdom and it is unrivalled"

Mr Johnson said: "London is by far the best capital city in the world to come to as a student and Imperial ranks amongst the very finest of universities. The restoration and development of the Prince's Gardens site, in the heart of London's inspiring museum quarter, will attract the very best minds to the capital, keeping Imperial at the forefront of discovery and learning. Its contribution to science is already supreme. This is London's true seat of wisdom and it is unrivalled. I want to see more Nobel Prize winners cut their teeth in South Kensington."

– ABIGAIL SMITH, COMMUNICATIONS

Chief Operating Officer Dr Martin Knight leading Boris Johnson around the grounds.

For more on the refurbishment of Prince's Gardens, see pages 8–9. To watch a video of the launch visit: **www3.imperial.ac.uk/news/mayoralvisit**

Several hundred million euro investment to combat climate change and boost ICT research

A several hundred million euro initiative to combat climate change and its effects on a previously unseen scale was announced on 16 December as world leaders were meeting in Copenhagen, bringing together world-leading universities including Imperial, and major companies and regions across Europe.

The creation of the Climate Knowledge and Innovation Community (KIC) signals Europe's commitment to tackling climate change and to making a step-change in its ability to innovate. This initiative is one of three KICs to be established and part-funded by the European Institute of Innovation and Technology (EIT).

> "The Climate Knowledge and Innovation Community will enable Europe to adapt and to hugely reduce its greenhouse gas emissions"

Imperial is also partner in the ICT KIC and is involved in a consortium, known as the EIT ICT Labs, which aims to provide Europe with an unprecedented proliferation of internet-based services and strengthen education, research and innovation for future information and communication requirements.

Climate KIC

The Climate KIC aims to create new technologies and new businesses that will dramatically reduce Europe's carbon emissions – for example by improving how cities are designed and operate – and enable individual regions to increase their resilience to the predicted changes in temperature, rainfall and landscapes in their area.

Professor Sir Brian Hoskins, Director of the Grantham Institute for Climate Change, said: "It's a massive task to both reduce carbon emissions across the world and to ensure that on a local, national and international level, we are able to adapt to the changes that are coming our way. The Climate Knowledge and Innovation Community will enable Europe to adapt and to hugely reduce its greenhouse gas emissions."


Crops like poplar might be used to manufacture chemicals, materials and liquid fuels in a single manufacturing plant.

ICT KIC

Speaking of the ICT KIC, Professor David Gann, Head of the Innovation and Entrepreneurship Group at Imperial, and co-lead of the UK partnership, said: "This gives us a welcome opportunity to build up our capability towards strengthening the digital economy, and to build on London's status as an international city of science."

—LAURA GALLAGHER AND NATASHA MARTINEAU, COMMUNICATIONS

No place for homophobia at Imperial

Imperial's diversity consultant Christine Yates and Rob Millwood, Deputy Chair of Imperial 600, with Stonewall's Ben Summerskill (centre).

Imperial was named as one of the UK's top employers for lesbian, gay, bisexual and transgender people on 13 January, sending a signal that there is no place for discrimination based on sexual orientation on the College's campuses.

Imperial's place at number 79 in Stonewall's 2010 Workplace Equality Index makes it one of only two universities in the top 100 list, alongside Liverpool John Moores at 85. The Index is published annually to showcase the UK's best employers for LGBT people, based on the steps they are taking to create a work environment in which all staff feel secure and valued.

The news reflects the College's increased focus over the past year on improving inclusivity and equality for LGBT staff, which began with the relaunching of its staff advisory group, Imperial 600, in January 2009. The group's name reflects the estimation that around 10 per cent of the UK's population is LGBT, equalling 600 of the College's 6,000 staff.

Welcoming Imperial's position in the Index, Rector Sir Keith O'Nions said: "Making it into Stonewall's index is a real milestone for us and sends a strong message that discrimination based on sexual orientation has no place on our campuses."

Over the past year, Imperial 600 has audited all College policies and employee advisory material to ensure that rules against homophobic discrimination are included in equality and diversity statements, and that same-sex couples are explicitly afforded the same rights and status as mixed-sex couples. It has also set up formal training for LGBT mentors and holds monthly networking events for staff.

– ABIGAIL SMITH, COMMUNICATIONS

To watch a video about LGBT life at Imperial visit: **www3.imperial.ac.uk/news/stonewall**

For more information about Imperial 600 visit: **www.imperial.ac.uk/hr/equality/sexualorientation/imperial600/imperial600**

New Year's Honours

The contributions to science and science communication of three leading figures at Imperial have been recognised in the 2010 New Year's Honours.

Professor Donal Bradley, Deputy Principal of the Faculty of Natural Sciences, Director of the Centre for Plastic Electronics and Lee-Lucas Professor of Experimental Physics, is awarded a CBE; Visiting Professor Sue Ion, a key figure in the nuclear power industry, becomes a Dame; and Melanie Thody, the College's Director of Access and Head of Outreach, receives an MBE.

Professor Bradley (pictured top) is recognised for his pioneering research into electronic materials and devices, with successful applications including the development of polymer light emitting diodes (PLEDs), which have been translated into lightweight, low-power displays for products such as mobile phones.

Professor Bradley says: "I would like to thank all those, including my wife, Bev, and children, Amelia, Conor and Eliza, who have supported me in my work over the last decade at Imperial. They have been key to the success that I have enjoyed."

Melanie Thody (pictured middle), who first joined Imperial in 1990 as Schools Liaison Officer, is recognised with an MBE for services to science communication. She went on to become Head of Outreach and then took on the additional role of Director of Access in 2006, leading a team dedicated to raising aspirations amongst young people whose backgrounds mean they may not otherwise consider continuing with education, and science in particular, after leaving school.

Also honoured is Professor Sue Ion (pictured bottom), who receives a DBE for services to science and engineering. A visiting academic in Imperial's Department of Materials, and alumna of the College, Professor Ion is a leading figure in the UK's nuclear industry, who was President of the British Nuclear Energy Society from 2004–06 and BNFL's Group Director of Technology from 1992–2006. She is also a member of the UK Council for Science and Technology, chair of the Fusion Advisory Board for the Research Councils, and represents the UK on the US Nuclear Energy Advisory Committee.

—ABIGAIL SMITH, COMMUNICATIONS

in brief

New Director for Security Science and Technology

On 1 January 2010, Professor Chris Hankin, Professor in Computing Science, became Director of Imperial's Institute for Security Science and Technology, succeeding Sir Keith O'Nions, following his appointment as Rector. Professor Hankin has worked at Imperial since 1984 as a theoretical computer scientist, where he has also held posts as Dean of City and Guilds College (2000–03), Pro Rector for Research (2004–06) and Deputy Principal of the Faculty of Engineering (2006–08).

To hear Professor Hankin talk about his new role visit: **www3.imperial.ac.uk/news/newdirector**

Indian minister visits Imperial

India's Minister for Human Resources Development, Kapil Sibal, visited Imperial on 15 January 2010 to explore university innovation and the process of translating research into new technologies and applications. The visit formed part of a five-day tour of the UK to strengthen educational ties between the two countries. It comes at a time when India is exploring ways to develop its higher education sector.

Faculty of Medicine new structure

The Faculty of Medicine's new academic and administrative management structure was implemented on 1 January 2010. The departments in the Faculty of Medicine are now as follows:

- Department of Medicine
- Department of Surgery and Cancer
- Institute for Clinical Sciences
- Kennedy Institute of Rheumatology
- National Heart and Lung Institute
- School of Public Health

For further details visit: **www.imperial.ac.uk/medicine/sids**

"The crowning jewel – nets which caught the concrete as it fell off towards unsuspecting rats below"

ICU PRESIDENT ASHLEY BROWN SHARES FOND MEMORIES OF THE OLD SOUTHSIDE HALLS OF RESIDENCE AT THE OFFICIAL OPENING OF PRINCE'S GARDENS.

Imperial College Healthcare NHS
NHS Trust

Pioneering robotic neck surgery

In a UK first, Imperial College Healthcare NHS Trust clinicians have performed robot-assisted neck surgery. A team at St Mary's Hospital has pioneered the use of the Da Vinci robot to remove overactive parathyroid glands.

Parathyroid glands in the neck control the level of calcium in the blood. When these four pea-sized glands become overactive, calcium levels rise, causing complications such as weaker bones, high blood pressure and kidney stones.

Conventional treatment involves open or laparoscopic surgery to remove the abnormal glands, both of which leave a scar on the neck.

The Trust's pioneering use of telerobotic surgery, however, avoids a neck scar because one small incision is made below the collarbone and three near the armpit, through which instruments and a camera are fed.

The surgeon manoeuvers the instruments from a console that provides a magnified, three-dimensional image of the patient's anatomy and allows the surgeon to operate with greater dexterity and improved precision.

Ear, nose and throat consultant Mr Neil Tolley, who led the team, thanked other members of the team from endocrinology, radiology and anaesthesia, as well as Professor Lord Darzi, for their involvement and support in this work.

New policy for treating infections in adults

A new policy for prescribing antibiotics for adult patients has been launched by the Trust. The aim of the policy is to continue to improve the management of infections and to minimise the associated risk of *C. difficile* and antibiotic resistance.

Professor Alison Holmes, Director of Infection at the Trust and Professor of Infectious Diseases (Medicine) at the College, said:

"Patients often need antibiotics and need them fast, but they need to be the right antibiotics. It's about balancing the risk of prescribing antibiotics and reducing the risk of infection. It's also extremely important that all staff continue to follow strict hand hygiene and infection control procedure."

A new pocket-sized booklet containing the full version of the policy has been distributed to doctors and posters are being displayed on all wards.

For further information or to obtain a booklet contact Dr Hayley Wickens (Medicine) **hayley.wickens@imperial.ac.uk**

—IMPERIAL COLLEGE HEALTHCARE NHS TRUST PRESS OFFICE

Santander award for MBA graduate

Imperial MBA graduate Matthew Judkins has received £3,000 from the Santander bank towards the development of a green air conditioning system, which he has been working on with his team in the Design London incubator in the Bessemer Building on the South Kensington Campus.

Matthew received the funding as the winner of the Santander Support for Business Incubator Space award, which was open to Imperial graduates. The award will provide the financial support he needs to start up his business.

Commenting on his success in the competition, Matthew said: "The Santander award has really helped me. When you are starting up, you need to focus on your business and an award like this allows you to do that, instead of looking at other routes to get funding."

Five Imperial students also received £1,000 Santander International Mobility Awards, enabling them to travel to Spanish and Portuguese-speaking countries. The successful applicants were Dr Roberta Trotta (Physics), Christopher Mark (Earth Science and Engineering), Fei Zhang, (Civil Engineering), Sadia Ahmed, (Life Sciences), and Emma Ward, (Civil and Environmental Engineering).

—EMILY GOVAN, INTERNATIONAL OFFICE

For more information about the new scholarships and funding contact: **scholarships@imperial.ac.uk**

SEQ update

A topping out ceremony was held on 2 December 2009 to celebrate completion of the floor of a new 185-seat lecture theatre in the Skempton Building, marking a milestone in the ongoing development of the South East Quadrant (SEQ) of the South Kensington Campus.

Work on the lecture theatre began in 2009 and the completed project will enhance the teaching facilities for those on Civil Engineering courses.

The Skempton Building also now includes additional teaching areas on level one within the old double height concrete laboratory and the development of flexible teaching spaces across levels zero and one is also underway.

Stephen Reid, Project Programme Director of the SEQ programme, said: "Provision of the new teaching spaces in Skempton will benefit the whole of the Faculty of Engineering. It will provide decant space for further phases of the SEQ programme but, most important of all, will become part of a zone of shared teaching space running through Skempton, Mechanical Engineering and any new Exhibition Road building on which design work is nearing completion."

Further work completed in 2009 as part of the SEQ programme included the creation of workshop areas and a new concrete durability lab — which works out how strong concrete will be and how long it will last — in the Mechanical Engineering Building.

Professor David Nethercot, Head of the Department of Civil and Environmental Engineering, with Kier Wallis director, Peter Kitchener, at the topping out ceremony.

For more on the project visit: **www.imperial.ac.uk/southeastquadrantprogramme**

media mentions

—AMNA SIDDIQ, COMMUNICATIONS

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THE GUARDIAN ▸ 27.12.2009

PETN – a recipe for disaster

The substance pentaerythritol trinitrate (PETN) in the attempted attack on board Northwest Airlines flight 253 on Christmas Day is extremely powerful and difficult to detect, if carried in a sealed container, according to *The Guardian*. If this substance is used in even the smallest quantity, it can cause immense damage, says Professor

Hans Michels (Chemical Engineering and Chemical Technology). He adds: "If you can lay your hands on a reliable source, it would be the explosive of choice". The device allegedly used by Umar Farouk Abdulmutallab involved a syringe and a plastic container filled with 80 grams of PETN.

DAILY TELEGRAPH ▸ 29.12.2009

Rise in amputations in diabetics reported

Amputations in people with diabetes have almost doubled over a 10-year period, according to the Telegraph. Imperial researchers, who carried out the study, say that this matches a large increase in the number of people being diagnosed with type two diabetes, which is linked to obesity. Dr Eszter Vamos (Public Health), leader of the study, said she expected to see more long-term complications from diabetes due to the increased number of people who have the illness. "But at the same time, there is very strong evidence that with a multidisciplinary team approach you can prevent up to 80 per cent of the amputations," she adds, "It highlights the importance of frequent foot checks and that it is very important to get glycaemic control and blood pressure and cholesterol control."

THE OBSERVER ▸ 10.01.2010

Group calls for pregnant women to be weighed in the balance

The National Obesity Forum is urging all pregnant women to be weighed more often during their pregnancies, reports

The Observer. Currently women in England have their height and weight taken at their first antenatal appointment and usually only those with a high body mass index are weighed after that. However, the NOF claims that excessive weight gain during pregnancy is becoming a serious problem, posing health risks including pre-eclampsia, gestational diabetes and foetal abnormalities. Dr Anne Dornhorst (Medicine) says she understands why women would resist further medicalisation of childbirth, but adds: "We know that obesity is a danger for the pregnancy — it influences the baby's growth and risk of obesity in later life".

BBC NEWS ▸ 12.10.2010

Big chill affects fate of Phoenix Mars lander

NASA's Mars Odyssey orbiter will be tuning for possible radio transmissions from the Phoenix Mars lander to check if it has survived one of the coldest Martian winters, reports the *BBC*. As temperatures have dropped in recent months, it is possible that its electronic parts may have been damaged. Starting on 18 January, Odyssey passed over the Phoenix landing site approximately 10 times a day for three consecutive days, to detect if it is active. Lead of development for Phoenix's microscopy station, Dr Tom Pike (Electrical and Electronic Engineering), says that "The batteries were not designed to withstand those temperatures. I think it's highly unlikely they have survived".

awards and honours

ENGINEERING

Distinguished microwave lecturer

Dr Stepan Lucyszyn (Electrical and Electronic Engineering) has been appointed a distinguished microwave lecturer for 2010–12 by the IEEE Microwave Theory and Techniques Society. During this period he will be invited to give presentations and lectures on commercial applications for radio frequency microelectromechanical systems at major events organised by the IEEE (Institute of Electrical and Electronics Engineers) within the US, Europe and Asia.

ENGINEERING

Imperial leader wins prestigious Royal Society award

Professor Tony Kinloch, Head of the Department of Mechanical Engineering, was awarded the Armourers and Braziers' Company Prize by the Royal Society in November 2009. The award is presented to leading researchers for excellence in materials science and technology. Professor Kinloch received the award for his contribution to adhesion science, which focuses on bonding different molecules together.

MEDICINE

Zondek award for Zhou

In December 2009, Imperial graduate Zhao-Wei (Grant) Zhou received the Zondek Award for delivering the best project and presentation, at the 20th European Students' Conference held in Berlin, Germany. Grant completed an

intercalated BSc degree in surgery and anaesthesia at Imperial last year. His BSc research project, entitled *Anaesthesia-induced neurodegeneration in different regions of the developing brain*, was supervised by Dr Daqing Ma, Senior Lecturer (Surgery and Cancer) (pictured). Grant beat 300 other participants to the top prize of €1,000.

MEDICINE

Goulstonian Lectureship for Dhillo

Dr Waljit Dhillo, Reader in Endocrinology and Metabolism in the Department of Medicine, has been awarded the 2010 Goulstonian Lectureship by the Royal College of Physicians. The Lectureship is awarded annually to its Fellows in recognition of academic achievements. Dr Dhillo will deliver his lecture on his translational research which has shown that kisspeptin is a novel hormone that could provide a new therapy for infertility.

Heart rhythm gene revealed in new research

A gene that regulates the rhythm of the heart is revealed in new research published in *Nature Genetics* on 11 January. The Imperial authors say their discovery helps them to understand how the body's heartbeat is controlled and could ultimately help scientists design more targeted drugs to prevent and treat certain heart problems.

Heart disease is the leading cause of death in the world, accounting for almost seven million deaths per year. Over half of these deaths are sudden and caused by serious heart rhythm disturbances such as ventricular fibrillation. The gene identified in the study is linked to these heart rhythm disturbances and reveals a new mechanism that controls the heartbeat.

A heartbeat is controlled by electrical signals, which start in one central place and travel around the heart muscle. This electrical signal is transmitted by specialised proteins in heart muscle cells called ion channels. The study reports the discovery of a new ion channel in the heart called SCN10A, which directly influences heart rhythm disturbances and the risk of cardiac arrest caused by ventricular fibrillation.

The mutation identified in the SCN10A gene is common and, at an individual level, has a modest effect on a person's risk of having heart rhythm problems.

Dr John Chambers (Public Health), lead author of the study, said: "Genetic variation is like the two sides of a coin. One side is associated with increased risk, the other with decreased risk. We have identified a gene that influences heart rhythm, and people with different variants of the gene will have increased or decreased risks of developing heart rhythm problems."

—LUCY GOODCHILD , COMMUNICATIONS

Children more likely to catch swine flu

Young people aged under 18 are more likely than adults to catch swine flu from an infected person in their household, according to a new study published in the *New England Journal of Medicine* on 30 December 2009. However, the research also shows that young people are no more likely than adults to infect others with the pandemic H1N1 virus.

The study, by scientists at the MRC Centre for Outbreak Analysis and Modelling at Imperial and the Centers for Disease Control and Prevention (CDC) in the USA, analysed data collected by CDC from 216 people believed to be infected with the swine flu virus, or 2009 H1N1, and 600 people living in their households.

At the start of the current pandemic, CDC advised patients to stay at home for seven days, but it has since revised these guidelines to 24 hours after the end of fever (without the use of fever-reducing medications), which is supported by the new research findings.

Lead author of the paper, Dr Simon Cauchemez (Public Health), said: "At the start of the current flu pandemic we didn't know how different factors affected the risk of transmitting the virus to other people. If we are advising people to stay at home if they develop flu-like symptoms, we need to understand the implications this might have for other household members. Our new research helps us to do this – for example, it shows that children are more at risk of being infected than adults."

—LUCY GOODCHILD, COMMUNICATIONS

Meddling with mosquitoes' mating to halt malaria

Stopping male mosquitoes from sealing their sperm inside females with a 'mating plug' could prevent mosquitoes from reproducing and offer a potential new way to combat malaria, say scientists publishing new results in *PLoS Biology* on 22 December.

The new study focuses on the species of mosquito primarily responsible for the transmission of malaria in Africa, known as *Anopheles gambiae*. These mosquitoes mate only once in their lifetime, which means that disrupting the reproductive process offers a good way of dramatically reducing populations of them in Africa.

When they mate, the male transfers sperm to the female and then afterwards transfers a coagulated mass of proteins and seminal fluids known as a mating plug. This plug is not found in any other species of mosquito and until now, very little has been known about what it is for, and the role it plays in *An. gambiae* reproduction.

> "We have shown that the male mating plug is not a simple barrier to insemination from rival males"

Lead author of the study, Dr Flaminia Catteruccia (Life Sciences) explains the significance of their discovery: "We have shown that the male mating plug is not a simple barrier to insemination from rival males, as has been previously suggested. Instead, we discovered that the plug plays an important role in allowing the female to successfully store sperm in the correct way inside her and, as such, is vital for successful reproduction.

"Removing or interfering with the mating plug renders copulation ineffective. This discovery could be used to develop new ways of controlling populations of *An. gambiae* mosquitoes to limit the spread of malaria."

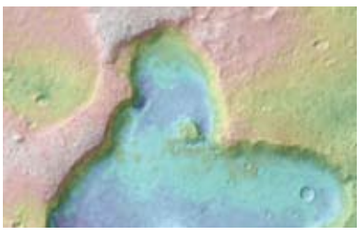
—DANIELLE REEVES, COMMUNICATIONS

Evidence of ancient lakes on Mars

Spectacular satellite images suggest that Mars was warm enough to sustain lakes three billion years ago, a period that was previously thought to be too cold and arid to sustain water on the surface, according to research published in the journal *Geology* on 4 January.

The research, by a team from Imperial and UCL, suggests that during the Hesperian Epoch approximately three billion years ago, Mars had lakes made of melted ice, each around 20 kilometres wide, interconnected by drainage channels, along parts of the equator.

Earlier research had suggested that Mars had a warm and wet early history but that between four billion and 3.8 billion years ago, before the Hesperian Epoch, the planet lost most of its atmosphere and became cold and dry. In the new study, the researchers analysed detailed images from NASA's Mars Reconnaissance Orbiter, currently circling the red planet, and concluded that there were later episodes where Mars experienced warm and wet periods.



The researchers say that there may have been increased volcanic activity, meteorite impacts or shifts in Mars' orbit during this period to warm Mars' atmosphere enough to melt the ice. This would have created gases that thickened the atmosphere for a temporary period, trapping more sunlight and making it warm enough for liquid water to be sustained.

Lead author of the study, Dr Nicholas Warner (Earth Science and Engineering), says: "Most of the research on Mars has focused on its early history and the recent past. Scientists had largely overlooked the Hesperian Epoch as it was thought that Mars was then a frozen wasteland. Excitingly, our study now shows that this middle period in Mars' history was much more dynamic than we previously thought."

—COLIN SMITH, COMMUNICATIONS

To watch a video of the findings visit: **www.mssl.ucl.ac.uk/imaging/mars/video/video_2_high_mov.html**

New lung disease genes discovered

Scientists have discovered five genetic variants that are associated with the health of the human lung. The research, by an international consortium of 96 scientists from 63 centres in Europe and Australia, sheds new light on the molecular basis of lung diseases.

The new findings provide hope for better treatment for lung diseases like chronic obstructive pulmonary disease (COPD) and asthma. In the past it has been difficult to develop new treatments because the molecular pathways that affect the health of the lung are not completely understood. It is hoped the new pathways discovered could in the future be targeted by drugs.

> "It could open up new opportunities to manage and treat patients with lung conditions."

The ground-breaking research involved a genetic study of 2.5 million sites across the human genome involving samples from 20,000 people across the world. The consortium was led by researchers at Imperial, and the Universities of Leicester and Nottingham.

The research, part-funded by the Medical Research Council (MRC) and Asthma UK, was published in *Nature Genetics* on 23 December 2009. It represents a significant advance because it is the first time that these five common genetic variations have been definitely linked with lung function.

The scientists said: "This work is important because until now we have known very little about the genetic factors that determine an individual's lung function. By identifying the genes important in determining lung function, we can start to unravel the underlying mechanisms which control both lung development and lung damage... Crucially, it could open up new opportunities to manage and treat patients with lung conditions".

—COMMUNICATIONS OFFICE, UNIVERSITY OF NOTTINGHAM

To hear Professor Paul Elliott (Public Health) talk about the genome-wide Association studies visit: **www3.imperial.ac.uk/news/newgenes**

New virus not linked to chronic fatigue syndrome

New UK research, published in *PLoS ONE* on 6 January, has not reproduced previous findings that suggested chronic fatigue syndrome may be linked to a recently discovered virus. The authors of the study, from Imperial and King's College London, say this means that anti-retroviral drugs may not be an effective treatment for people with the illness.

An estimated three in 1,000 people have chronic fatigue syndrome (CFS), or myalgic encephalomyelitis (ME), experiencing severe physical and mental fatigue that is not alleviated by rest, together with other symptoms such as muscle pain, headache, joint pain and depression. Diagnosing CFS is difficult, as symptoms vary and there is no standard test.

In October 2009, a group of US scientists published research in the journal *Science* that suggested that a recently discovered virus called XMRV could be linked to CFS. In this new study, however, researchers found no evidence that patients with CFS had the XMRV virus. Several labs in the US now offer CFS patients treatments based on the earlier findings that linked the condition with XMRV.

One of the authors of the study, Professor Myra McClure (Medicine), said: "We are confident that our results show there is no link between XMRV and chronic fatigue syndrome, at least in the UK. The US study had some dramatic results that implied people with the illness could be treated with anti-retrovirals. Our recommendation to people with chronic fatigue syndrome would be not to change their treatment regime, because our results suggest that anti-retrovirals would not be an effective treatment for the condition."

—LUCY GOODCHILD, COMMUNICATIONS

Fit for **Princes**

From the grandeur of the classically styled Natural History Museum to the modernist glass pavilion of the Royal Geographical Society; keeping up with the Joneses in South Kensington is no small feat. *Reporter* tells the success story of the £160 million refurbishment of Imperial's Prince's Gardens.

When co-leads Steve Howe, Director of Building Projects, and Paddy Jackman, Director of Commercial Services, began working on the new development in 2005, the time was ripe for transformation: "Depressing concrete student accommodation buildings do-minated Prince's Gardens, the square was overgrown with shrubs, and the 'sports facilities' were not what you would expect from a world-leading university," says Steve.

The picture Steve paints bears no resemblance to the continental-looking square which students, staff and local residents have enjoyed since building work was completed in October 2009. Over the last five years the 1960s concrete accommodation has been demolished and replaced with two new state-of-the-art accommodation buildings; Southside and Eastside. The square also features a new bar, convenience store and, on the north side of the square, a high-tech sports centre known as *Ethos*.

> **"The atmosphere since the redevelopment is so vibrant, it's like a little village"**
>
> *—Sharine Brown, Head of Accommodation Services*

From the very start of the project, the redevelopment was carried out in consultation with local residents. Steve explains that this was really important as the square was designed as a space for the local community to enjoy.

The project team and the architects took pains to ensure that the refurbishment of the square fitted aesthetically into the local area. For example, the colouring, scale and type of materials used for the front façade of the new halls complement the Victorian buildings fronting the square and the back of the halls have been designed with brick detail to blend in with the small mews they back onto.

To minimise disruption during the project, construction company Laing O'Rourke brought in large quantities of prefabricated structures, from the stone façade which was pre-hung onto concrete panels, to the bathrooms which were hoisted directly into the new buildings.

And the team's efforts haven't gone unnoticed. In the annual report of the Knightsbridge Association – which represents local interests on planning applications in the area – the organisation said: "The new halls of residence are a great enhancement to the area."

A large number of Imperial staff were also involved in the Prince's Gardens project. Sharine Brown, Head of Accommodation Services, explains that her role was to ensure that students' needs were met. One of her priorities was to get larger kitchens in the new accommodation with more space for students to cook and socialise. "At the start of term students can feel homesick, and the feedback I was getting was that they found that cooking their dinner in the kitchen then eating it by themselves in their rooms was making them feel really lonely."

Today the kitchens in Eastside and Southside are the social hubs that Sharine envisaged, with spacious communal eating areas and wall-mounted TVs.

Steve is really proud of what the team has achieved: "Seeing how much of an impact the development has had on the student experience, and watching people use and enjoy the space over the last few months has been really satisfying. It really is a credit to the College and to the dedication of the huge team in Commercial Services that made this happen," he says.

—EMILY ROSS, COMMUNICATIONS

Fond memories

A professor remembers the old Linstead Hall

Professor Eric Yeatman (Electrical and Electronic Engineering), sub-warden at Linstead 1988–90

"Linstead was divided into two sections – the main building was a large concrete block, with student rooms on three staircases, and the 'extension', which was a bit more attractive externally and had mostly shared rooms for two or even three students. There were certainly no en suite student rooms!

Two unique things about Linstead were the bar – run by and for the residents – and the evening meals, which were prepared in the main College kitchens and brought to the halls through the tunnels that run beneath the South Kensington Campus. The requirement for communal evening meals was specified by the anonymous benefactor, who funded the building of Linstead, and there was always much speculation as to who this was, the Queen Mother being a popular theory. Another occasional duty was to take injured students to casualty. I remember one such occasion where a young lady had a male fellow student in her room, and while they were 'studying together' he somehow managed to cut his forehead open on the edge of her bed!

Although the accommodation was basic and the building a bit of an eyesore, 'old' Linstead had great community spirit, and on the day before demolition began many old residents gathered to give it a spirited send-off."

Amazing workplace

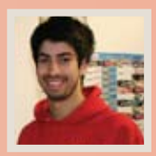
A staff member describes working in Prince's Gardens

Kelly McKenzie, Assistant Manager of Ethos

"*Ethos* is situated right in the heart of the campus, which makes it the ideal place for students and staff alike to keep fit and healthy. When I first started at Imperial in November 2004, the old Southside and Eastside buildings were still towering over the gardens and *Ethos* was only at the foundation stage. It's great to now look out over Prince's Gardens and see the completed project. It feels like a little community and the overall student experience has improved drastically with all the essentials in one place. It's lovely to see students, staff and local residents using the green space to read a book, eat lunch or catch up with friends. Seeing *Ethos* develop into the excellent facility it is today has made me feel really proud. Whether you fancy a workout in our 75-station gym, a leisurely swim, an energetic game of squash, scaling the climbing wall or taking part in one of our many classes, there is something for everyone and we have around 1,000 visitors a day! *Ethos* is also a resource for the surrounding community – we provide local schools with facilities for their sporting curriculum and it also helps promote healthy living amongst young local children via the Fit for Sport scheme which uses us during school holidays."

Home sweet home

A student's take on living at Eastside



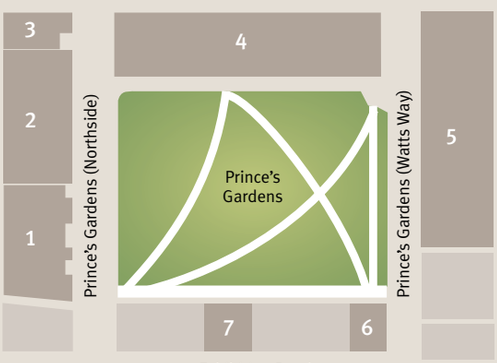
Alan Soltani, first year Physics undergraduate

"My first impressions of Eastside were of an arty and grand looking building due to the design of the common room 'blinds' and the balconies. The building also had a welcoming feel with the big glass doors and the sense of space created by the glass exterior looking into the ground floor. My favourite part of the halls is the shared common room – the table tennis and table football tables supply a much needed atmosphere of friendly competition and it's where I've made lots of my closest friends! The location of Eastside couldn't be better. It's right by the College so you have no excuses for not getting to lectures on time and it makes the first week really easy, because there are lots of things you need to do and you can just pop across to sort stuff out. The sports centre, *Ethos* is also literally across the road and the Essentials shop has enough variety of food for you not to need to hit the supermarket. Eastside bar right next door is really nice to pop into for the occasional meal or drink and its continuously changing bar lights will have you entranced for far longer than is appropriate! Now I live here, I take it for granted but it really is one of the nicest halls at Imperial, and I would go as far as to say the country. Friends of mine from other universities, who have visited, reluctantly admit this too!"

Prince's Gardens in motion

To watch the story of Prince's Gardens, including Princess Margaret opening Southside in the 1963 and the topping out of Eastside in 2008, visit the **Video Archive Blog**, *compiled by Colin Grimshaw (Communciations).*

www.imperial.ac.uk/blog/videoarchive



Map of the area

1. *Ethos* sports centre
2. Prince's Gardens, North Side Garden Hall
3. Weeks Hall
4. Eastside
5. Southside
6. 58 Prince's Gate
7. 53 Prince's Gate

Sir Keith takes the hot seat

Sir Keith O'Nions arrived at Imperial in summer 2008 to set up a new interdisciplinary institute; a year and a half later he's sitting in the Rector's office. He tells *Reporter* how he feels about taking up the unexpected challenge.

"I'm cautiously optimistic," muses Sir Keith, sitting in a chilly Faculty Building meeting room in December to be interviewed about his new role. "Imperial is one of the world's very great institutions. It didn't reach this point by accident; it reached this point because of its outstanding teaching, research and support staff. I've no doubt it will continue to be one of the really leading institutions in the world." A slightly nervous grin. "Why should that be a daunting prospect?"

Despite any new job jitters, Sir Keith is eminently qualified to take over as Imperial's interim leader. A career academic for more than 30 years, he has taught, researched and led departments in some of the world's top universities, culminating in the role of Head of Earth Sciences at Oxford in 1995.

Following that, he says with tongue firmly in cheek, he "went very badly off the rails" and spent much of the noughties as a government scientific advisor, first at the Ministry of Defence from 2000 to 2004 and then at the Department of Trade and Industry (later Innovation, Universities and Skills) as Director General, Science and Innovation, and Chief Scientific Advisor.

> "We have to make students feel that they matter"

Financial climate

Sir Keith describes the last decade as "a purple patch and probably the best times we've had in higher education since the 1960s". He is aware that he is taking over as Rector in a very different financial climate and is realistic, but upbeat, about what the future might bring.

"We just have to take a positive approach and make sure we're resilient," he says of the uncertain funding situation higher education faces in 2010. "One can't be naive, but one can take a fairly confident view of an institution that's as powerful as this on the world stage. What's important is that we show leadership in higher education and research, and make the case to government about the value of what universities do both for society and for economic growth."

Ensuring Imperial's resilience through potentially choppy waters is one of Sir Keith's main priorities for the coming year; another is to set the College's medium term strategy.
He comments: "Given that this is an interim role, it would be inappropriate for me to set out a decade-long vision that took us off in directions nobody would anticipate. There are some things that we clearly need to do and setting our medium term plans, such as what we intend to do internationally and what our research focuses should be, will be important."

Tackling global challenges

Returning to academia from government in July 2008 to set up and direct Imperial's Institute for Security Science and Technology has given Sir Keith a first-hand insight into the College's strategy of setting up multidisciplinary institutes to tackle global issues, an approach he describes as "quite inspirational". His own institute, which will be directed by Professor Chris Hankin while he is Rector, addresses a wide range of issues, from identity theft and document fraud to the security of transport infrastructures, energy suppliers and communication networks.

"The Institute can exist and develop only because of the splendid strength of the core disciplines of the College; without those you can't do this sort of thing," he says. "I think people will expect universities to play a bigger and bigger role in addressing the really huge societal questions that we face today. Imperial is already doing that."

Addressing global challenges is something universities do not just through research but also through teaching, and Sir Keith is enthusiastic about the opportunities that today's students have ahead of them. "These challenges can look daunting to people who have been in a career for 40 years, but if I was 20 years old I'd probably look at the world and think it was a pretty exciting place," he says.

Providing a high quality educational experience is therefore pivotal. "We have to make students feel that they matter," he says. "We have to be accessible. We have to offer that guidance. And hopefully in 40 years when they look back, they'll think of people here who changed their lives."

Sir Keith admits that he doesn't devote as much time as he would like to outside interests, and knows that life as Rector will be even fuller. He recently managed to catch the Royal Shakespeare Company's production of *Twelfth Night* at Stratford-Upon-Avon, but confesses that in a year he has only got three quarters of the way through Bunyan's *Pilgrim's Progress* – "so maybe that gives you a measure of the man".

Despite the extra demands heading his way, however, he is excited at this unexpected opportunity. "I fully understand that the buck stops with whoever is in charge. You have to accept that, you have to deal with it," he says. "But I think, in the main, one can move forward in a collegiate way – and if the system is resilient to change and agile to opportunities, I will be delighted."

—ABIGAIL SMITH, COMMUNICATIONS

inside* story

mini profile

Salvador Navarro-Martinez

Dr Salvador Navarro-Martinez (Mechanical Engineering) describes how his research on droplets could change the way we take medicine and fuel our cars.

What is your research about?

I am creating mathematical models that explain the size and distribution of droplets sprayed from a range of different devices such as fuel injection systems in engines and medical devices including inhalers.

Why is it important to characterise droplets?

At the moment our understanding of droplets is limited, but if we could develop models that could characterise droplets, we could increase the efficiency of devices. For instance, it could help to create more effective inhalers, which deliver medication deeper into the lungs of asthma sufferers to improve their breathing.

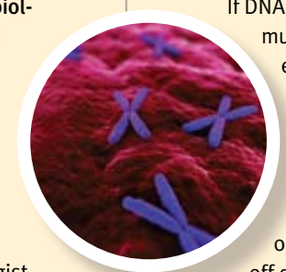
How could your research help the world to become more environmentally friendly?

In engines, fuel is injected into the combustion chamber through a spray system. If we can characterise droplets correctly we may be able to design more efficient injection systems that, in turn, will produce cleaner cars and use less fuel.

—COLIN SMITH, COMMUNICATIONS

The legacy of Aristotle's lagoon

Earlier this month, Professor Armand Leroi (Life Sciences) presented a new BBC documentary which revealed the debt modern biology owes to the ancient Greek polymath Aristotle. Armand describes how the programme came about.



"Ten years ago on holiday in Greece, I bought a copy of Aristotle's *History of Animals* from a second-hand bookshop. In it Scottish biologist D'Arcy Thompson claimed Aristotle did most of his biological work at a lagoon on the island of Lesvos. I was going to Lesvos anyway to visit some Imperial researchers and spent two weeks at the lagoon. It really opened my eyes to what an amazing biologist Aristotle was. He had a deep and integrated physiological system for understanding the world around us."

To watch the programme visit: **www.bbc.co.uk/programmes/booqohh2**

inventor's corner

Personal training

Wireless sensors, worn behind the ear — one of the innovations developed by Guang-Zhong Yang and his team.

Professor Guang-Zhong Yang is research director of the Institute of Biomedical Engineering, as well as head of the Visual Information Processing Group in the Department of Computing. He has designed a technology which can help athletes to improve their sporting technique.

Guang-Zhong has been with the College for over 20 years as a student and staff member. His research focuses on pervasive computing – the idea that computing technology is moving beyond the PC to everyday devices which are becoming progressively smaller and more powerful.

In 2008, alongside Dr Benny Lo (Computing) and with the help of Imperial Innovations, he founded Sensixa, a company developing a miniaturised wireless pervasive sensing device that can be used for accurate physical activity monitoring.

Guang-Zhong says that one of the biggest challenges facing sports technology is understanding precisely how elite athletes reach their achievements. The creation of miniaturised sensors offers a way to extract continuous and accurate information under normal training and competition environments for real-time analysis.

"We put a miniaturised wireless sensor on the ear to try to work out from shockwave transmission what is happening to the musculoskeletal system including lower body joints, such as the knees and ankles. The sensor learns from how the inner ear controls balance and motion by using the skeleton as a high-frequency wave transmitter," explains Guang-Zhong.

Having biomechanical data available during a training session can make the whole process of improving sporting technique much quicker and easier, as an improved understanding of performance can allow coaches to fine-tune training. For elite sport, improving the speed of athletes by a mere millisecond could be the difference between just finishing and winning a gold medal.

Guang-Zhong hopes in the future to position the UK at the forefront of pervasive sensing in elite sports and to promote its wider application in public lifelong health, well-being and healthcare.

—ANOUSHKA WARDEN, IMPERIAL INNOVATIONS

SCIENCE FROM SCRATCH

As explained by Isabelle Kaufmann, Msc Science Communication

Gene expression

If DNA is the book of life, then proteins are life's building blocks. Our muscles, skin and blood cells are made up of different proteins. Gene expression is the process that transforms or 'expresses' the genetic information in our DNA into the proteins that make up physical matter. A complex machinery of enzymes assembles the proteins according to the DNA's recipe. Each cell in our body contains an entire set of genes, but not every cell needs all the proteins. Some proteins are made by certain cell types only, like keratin in the skin or haemoglobin in the blood. Gene expression is switched on and off depending on the body's needs, for example, when we eat sugar, expression of the insulin gene in the pancreas increases.

Is there a phrase or term you would like us to explain? ✉ Email the editor: **reporter@imperial.ac.uk**

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

blog SPOT

Student blogger Chris on

growing up in the noughties:

"This last decade housed most of the significant events that changes who you are as a person. In the last 10 years we rode the trains alone for the first time; we used hair-gel, makeup and deodorant; we discovered the power of music and learned to rebel; we kissed a girl for the first time and saw what all the fuss was about. These experiences moulded us, for better or for worse, and prepared us for the next 10 years where we are expected to find jobs, find a spouse and possibly have children. A very daunting thought."

www.imperial.ac.uk/campus_life/studentblogs

Sparking enthusiasm in the next generation

Dr Catherine Reynolds, Research Associate (NHLI), describes her experience of working with primary school children as part of the Next Generation project.


Dr Alexander Baki teaching a workshop at Salisbury Primary School.

"I joined the Next Generation project two years ago, when project leader Dr Wayne Mitchell (Medicine) had the idea to take a group of post-docs into a primary school to provide the children with an opportunity to learn science through practical workshops, and the participating scientist with the chance to develop transferable skills.

Very few of us involved with the project had any prior school teaching experience and I won't pretend that the first few minutes standing in front of a class of expectant nine year olds with a few PowerPoint slides, some glass jars and some pond weed was anything other than terrifying! But the nerves were totally unfounded. The enthusiasm of the children to get involved, ask loads of questions and to have fun with science made it an inspiring two days and confirmed that it was a project I definitely wanted to be involved with. Since then the project has gone from strength to strength, delivering nearly 50 two-day workshops covering most of the Key Stage 2 science curriculum.

The project is well supported by the Postdoc Development Centre here at Imperial and we are always looking to recruit new team members. There are lots of ways to be involved, from helping to design the experiments, to delivering some or all of a workshop. It's not necessary to have any teaching experience and post-docs from any scientific discipline can take part. I've found the project to be a massively rewarding, worthwhile and useful experience, and would definitely encourage others to get involved.

The next workshops will be held on 5 and 8 February on the South Kensington Campus.

To find out more about the Next Generation project, contact: **rachel.gomes@imperial.ac.uk**

TIME OUT

Gaelic athletics

The Imperial College Gaelic Athletic Club not only provides its members with a unique chance to take up sports like hurling or Gaelic football, but it also allows them to experience traditional Irish culture, music and dance.

Club chairman Edward O'Hare, a third year Civil Engineering undergraduate, explains: "It's a way of life back home in Ireland. The club's all about the craic – the Irish term for fun or entertainment – and people doing what they enjoy".

Edward started the club along with two other students when he joined Imperial. He says: "People wanted to give something else a go, and we offer something more physical and more skilful than rugby or soccer. For Gaelic football, you need the strength of a rugby player and the speed of a football player. And hurling is like hockey – except in the air, without padding!"

The ethos behind Gaelic athletics has always been to bring the community together, and it has done this throughout Ireland's hardest times. Run by the community for the community, it's part of the Irish tradition.

And for those who aren't inclined towards physical sports, there is a strong social aspect to the club, whether this involves singing, poetry, or just having a pint or two. Edward said: "It's traditional to go to a bar to celebrate, and someone always starts singing all the old songs. These events get everyone involved."

The club has proved popular with Irish students and those of Irish descent, but it is open to all nationalities – staff and students.

This year the club aims to compete in the men's and ladies' British University Championships in both hurling and Gaelic football.

—EMILY GOVAN, INTERNATIONAL OFFICE



Above: Celebrating the Gaelic Athletic Association's 125th anniversary. Left: Finian McCann and Stephen Gallagher, Imperial's GAA British University All Star Hurlers.

Highlights

- **Meeting times:** Training on Wednesday afternoons and weekends
- **Society size:** 50
- **Equipment:** No special equipment needed – just turn up in football boots or trainers.
- **Email:** gaelic.sports@imperial.ac.uk

Threshold

From 13–29 January the Blyth Gallery on the South Kensington Campus will be exhibiting a selection of paintings, sculptures and drawings by current Royal College of Art students Adam Bainbridge and Anna M.R. Freeman. Notions of home, alienation and belonging are addressed by both artists but are executed through radically different stylistic approaches. *Threshold* challenges these concerns by constructing a direct discourse between the two artists' work.

Both artists engage with ideas relating to 'Englishness'. Freeman's work conjures images of decadent Victorian mansions that question the comfort and security that this abundance appears to offer. Bainbridge's England is a very different one – it is a working/middle class England of tidy front lawns, floral fabrics and twee decorative ornaments.

Adam Bainbridge was born in Boston, Lincolnshire in 1982 and Anna M.R. Freeman was born in London in 1982. Both artists are due to graduate this summer from the MA Painting course at the Royal College of Art.

Helping you kick the habit

Every January millions of people pledge to give up smoking. We all know how hard it is to stick to New Year's resolutions so here are some tips from the College's employee advisory service, EAR, to help anyone trying to kick the habit.

- Take one day at a time. Every day without a cigarette is another success.
- Treat yourself with the money you have saved from cutting cigarettes out of your budget.
- If you have tried to give up before and failed, consider why you started smoking again. Were you out smoking with friends? Were you under strain at work or at home? Think carefully about what you can do this time to avoid the situations that made it hard to stop smoking previously.
- Every now and then, you might get a sudden urge to have a cigarette – even months after you have given up. Remember – however strong the cravings may be at first, they will go away as long as you do not give in to them.

EAR is a free service available to staff and their families offering support in a wide range of situations, which can be accessed 24 hours a day, seven days a week and is entirely confidential.
Contact: 0800 243 458 | www.ear.co.uk | assistance@ear.co.uk

Have your say

What do you think of the new-look Exhibition Road?

Exhibition Road has long suffered from pedestrian overcrowding, poor disabled access and dangerously fast traffic. Local councils and the Mayor of London have recently launched a massive £25 million scheme to redevelop Exhibition Road into a single surface that pedestrians and vehicles both share, helping to reduce congestion and traffic speeds. The first part of this redevelopment has concentrated on the area around South Kensington underground station, removing the one-way traffic system and creating large pedestrianised areas to the south of the station and along Thurloe Street. *Reporter* headed down there to see if the new changes have been popular with the locals.
—DR AIDAN RHODES, UK ENERGY RESEARCH CENTRE

Vicky Carter, secretary

"I really like the new space, it's really wide and open, and much friendlier for pedestrians! I think it will be great in summer – they could put tables and a café out here. It would be a lovely place to have a cup of coffee."

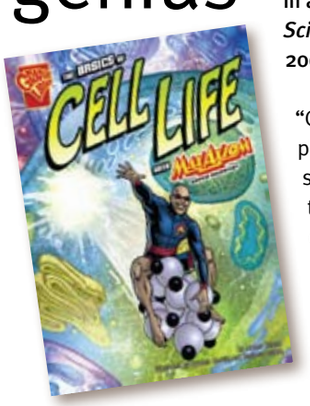
Jerome Cordier, accountant

"I cross here every day to go to work. Before, I thought it felt dangerous crossing the road here – everything was very cramped. Now it's very open and you can see much better. I am pleased that even in a recession they are making the city better for people, it makes me very glad to live and work here."

Marko Aunedi, Research Associate (Electrical Engineering)

"I think the new development looks fantastic, and I especially like the way they are pedestrianising the roads. I think the area around the station is much improved – I go there for lunch sometimes and it feels friendlier and less dominated by traffic. I'm looking forward to what they will do with Exhibition Road."

Comic genius



Mico Tatalovic, who has just completed an MSc in Science Communication, talks about science comics as a means to engage the public with science and technology – a topic he explored in a paper published in the *Journal of Science Communication* in November 2009.

"Comics are often underrated and simply regarded as animated children's stories, but for science communicators, comics are an art form in their own right. Their visual appeal makes them an excellent medium for communicating science to both children in schools and to adults. In my article I reviewed many science comics produced by universities, publishers and private companies and several academic papers that examined science in comics.

The inspiration for my article came from finding some really cool comics about science online which no-one really knew about. They were hidden on various universities' websites and obscure blog posts. During my MSc, I compiled a long list of science comics available to teachers, children and scientists, which they would read to learn about science and its role in our society.

The examples I collected came from all over the world, from the US and UK to Japan and Croatia. For example, the EU's *Eco Agents* online comic books let you design your own main character and have clickable frames that provide you with more information as a film, game or a quiz, while you're reading your comic book. Similarly *Planet Science* lets school children design their own superheroes, based on sound scientific principles, and then use these characters in a comic book.

I hope my paper will stimulate further research into how comics represent science and the scientist, and also act as a starting point for teachers and pupils to explore the world of educational science comics."

To read Mico's article in full visit:
http://bit.ly/70c55b

long service

Reporter shares the stories of staff who have given many years of service to the College. Staff featured celebrate anniversaries on 1 January–1 February. Data is supplied by HR and is correct at the time of going to press.

—ECE MENGUTURK, COMMUNICATIONS

20 years

- Dr Patricia Taylor, Lecturer (NHLI)
- Professor Martin Wilkins, Clinical Professor (Medicine)
- Phil Jones, Technician (EEE)
- David Williams, Technician (EEE)
- Jan de Abela-Borg, Faculty Safety Manager (Natural Sciences)
- Jo Williams, Years 1 and 2 Curriculum Administrator (Faculty of Medicine)
- Simon Graham, Technician (Physics)
- Colin Calvert, Maintenance Operative Mechanical (Estates)
- Dr Jamie Wilkinson, Reader in Hydrothermal Geochemistry (ESE)

SPOTLIGHT

Paul Jobson, Technician (Mechanical Engineering) 20 years

Paul Jobson started working at Imperial as a technician in the Department of Mechanical Engineering 20 years ago.

Prior to joining the College he worked in the field of fluid mechanics. Today he is the sole technician in the Tribology Group. When asked what he enjoys most about working at the College, Paul describes his colleagues' enthusiasm towards what they do, remarking that he admires their "underlying drive to achieve and devotion to a certain field". In addition, he has been very pleased to be able to contribute to the recent growth of the Tribology Group. Outside Imperial, Paul likes spending time with his family and being involved in church activities. He thinks being interested in science may well run in the family, as his four-year-old son, Brendan, has already begun to show a curiosity for naming the stars and making toy machines.

A faithful past

Did you know that the Guy Scadding Building on the Royal Brompton Campus occupies the site of the former St Wilfrid's Convent? The convent included a Victorian building built round an inner courtyard, an orangery, a walled garden of trees, shrubs and vegetables, and a shrine. The ash tree alongside the main gate dates back to the convent's days. The nuns nursed and cared for the needy in small cell-like rooms that many years later were occupied by senior academics as offices. The Royal Brompton Hospital bought the convent from the order and, initially, it was used for NHS offices and storage. The College then bought the site from the NHS and found

that, instead of a single title deed, each part of the site, for example, the shrine, the vegetable garden, etc., had its own title deed. The nuns had not worried about this sort of detail.

—IRENE ODDY (NHLI)

obituaries

DR BERNARD ATKINSON

Dr Bernard Atkinson, who worked in the Department of Chemistry until March 1990, died on 16 November 2009.

Emeritus Professor Bill Griffith pays tribute to his friend and colleague: "Bernard was born in Hull in 1923 and entered the Department of Chemistry at Imperial in September 1941, gaining a first class Honours BSc. As well as being an air raid warden, he was President of the Royal College of Science (RCS) Students' Union, much later becoming President of the RCS Association.

After one year's postgraduate research, Bernard joined the Imperial staff in September 1944, and was awarded his PhD on the chemistry of tetrafluoroethylene in 1951. During the war, and for some time afterwards, he worked on nerve gas antidotes at Imperial and at Porton Down. He then studied photochemical and thermal reactions of quinones and some basic chemistry of CFCs (chlorofluorocarbons) long before their influence on the ozone layer was realised.

Bernard became a Senior Lecturer in physical chemistry in 1962 and Departmental Administrator in 1981, and was largely responsible for the rebuilding of the Department. He wrote a detailed history of the Department of Chemistry covering the period 1960–89. He was widely known, well-liked and admired by both academic and administration colleagues. After nearly 60 years at the College, in 1990 Bernard began an active retirement. He leaves a wife, son, daughter and two grandchildren."

PROFESSOR SUNITHA WICKRAMASINGHE

Emeritus Professor Sunitha Wickramasinghe died at his home in Maidenhead on 28 June 2009, aged 68. Dr Saad Abdalla (Medicine), who worked with him, pays tribute: "Sunitha was appointed Professor of Haematology at St Mary's Hospital Medical School in 1979. He combined basic research on haematopoiesis with a keen interest in teaching and building a clinical haematology department. His interests in haematology included fundamental observations in congenital dyserythropoietic anaemia (a rare inherited bone marrow condition) and thalassaemias (inherited conditions common in tropical countries).

Together with Professor Mollison, his predecessor at St Mary's and another colleague, Professor Nevin Hughes Jones, he established a BSc course in Haematology at the medical school, which has flourished to the present day. Many students were indebted to him for the personal attention he gave and several went on to take up a career in haematology.

Sunitha was an expert diagnostician and morphologist, with an internationally acclaimed opinion. He authored several books and edited many others. His Lecture Notes in Haematology remains one of the standard undergraduate haematology texts. Sunitha retired from his academic post in 2000 but continued to see patients as a consultant haematologist at St Mary's until about 2007."

Welcome
new starters

Dr Juan Acosta Cobacho, Clinical Sciences
Mr Nicolas Addington, Mathematics
Dr Nadine Afram, Physics
Dr Etienne Airiau, Chemistry
Professor Gianni Angelini, NHLI
Mr James Atteck, Mechanical Engineering
Ms Elzbieta Augustyniak, Public Health
Dr Alexandros Avdis, Chemical Engineering and Chemical Technology
Mrs Ann Banks, NHLI
Dr Sean Barrett, Physics
Dr Travis Bayer, Molecular Biosciences
Dr Ute Brassat, Chemistry
Dr David Carmena Jimenez, Clinical Sciences
Dr Kalypso Charalambous, Chemistry
Mr Su Chen, Chemical Engineering and Chemical Technology
Miss Delica Cheung, NHLI
Dr Joanna Clark, Grantham Institute
Mr Richard Clark, Catering
Mr Kerry Clough, Development and Corporate Affairs
Ms Aoife Colgan, Medicine
Dr Georgina Cornish, Medicine
Dr Krishna Damodaran, Chemistry
Mr Armel De Montgros, Mechanical Engineering
Dr Itxaso del Palacio Aguirre, Business School
Dr Viola Denninger, Cell and Molecular Biology
Dr Ester Domingo, Materials
Dr Eric Dubuis, NHLI
Mr Alessio Dulbecco, Mechanical Engineering
Dr Daniel Eakins, Physics
Dr Jonathan Eastwood, Physics
Dr Tom Ellis, Bioengineering
Mr Kenneth Emmett, Catering
Mr Alexander Fullbrook, Cell and Molecular Biology
Dr Claudia Garetto, Mathematics
Dr Andreas Georgiou, Biomedical Engineering
Dr Ciara Greene, Medicine
Dr Jaesuk Hwang, Physics
Mrs Pooja Jain, Molecular Biosciences
Dr Anne-Lise Jourdan, ESE
Dr Nicholas Kirkby, NHLI
Dr Pipin Kojodjojo, NHLI
Dr Michal Komorowski, Molecular Biosciences
Mr Jimmy Kyaw Tun, Surgery and Cancer
Dr Heidi Larson, Public Health
Dr Joao Leitao, Civil and Environmental Engineering
Dr James MacDonald, Molecular Biosciences
Mr Oliver Mahony, Materials
Miss Elizabeth Mann, Medicine
Dr Eduard Maron, Medicine
Mr Christopher McGonigle, ESE
Dr Alison McMillan, NHLI
Dr Peter Mitchell, Medicine-
Miss Amy Murphy, Medicine
Miss Emily Murphy, Environmental Policy
Mr Connor Myant, Mechanical Engineering
Mr Mihalis Nicolaou, Computing
Mr Christopher Nicolay, Surgery and Cancer
Mr Timothy O'Riordan, Chemistry
Dr Mitesh Patel, Physics
Dr Stuart Paterson, Physics
Dr Michele Pelosi, Kennedy Institute
Ms Catherine Perry, Educational Quality
Dr Jahnavi Phalkey, Humanities
Dr Massimo Pica Ciamarra, Civil and Environmental Engineering
Dr Silvia Pitzoi, Clinical Sciences
Professor Colin Prentice, Biology
Miss Anna Ramsay, Business School
Dr Tyler Roschuk, Physics
Miss Sangeeta Sabharwal, Educational Quality
Dr Tarangini Sathyamoorthy, Medicine
Mrs Mandeep Sidhu, NHLI
Mr Timothy Simpson, Biology
Miss Shweta Singh, Molecular Biosciences
Mr Gareth Smith, Computing
Mr Ashley Spencer, Catering
Ms Katie Stilwell, Kennedy Institute
Dr Daniel Stuckey, NHLI
Dr Andre Studer, Chemistry
Dr Mark Tame, Physics
Ms Ally Tesoriero, Business School
Ms Hayley Thompson, Kennedy Institute
Miss Eke Ukwedeh, Finance
Dr Emily Williams, NHLI
Dr Yun Zhou, EEE

Farewell
moving on

Mr John Akins, Cell and Molecular Biology (32 years)
Dr Charlotte Allan, Chemistry
Mrs Clare Allen, Medicine (11 years)
Miss Andrea Alleyne, Imperial College Union
Dr Gabriel Almeida, Investigative Science
Ms Sally Aspital, Agricultural Sciences (9 years)
Mr Adrian Baines, ICT
Dr Marion Barbazanges, Chemistry
Mr Karol Bauman, Faculty of Medicine (18 years)
Ms Sue Bedford, Imperial College Union (11 years)
Mr James Berg, Physics
Dr Neil Bevis, Physics
Miss Tanushree Bhalla, Human Resources
Miss Jane Bohannon, Medicine
Dr Radovan Boskovic, Biology (7 years)
Miss Louise Brown, Finance (17 years)
Mr Gareth Brown, Environmental Policy
Mrs Gill Brown, Investigative Science (20 years)
Ms Tamara Bunting, Investigative Science
Ms Jennie Catchatoorian, NHLI
Miss Hannah Chalmers, Mechanical Engineering
Dr Vera Chan, SORA
Mr Edward Charnley, Development and Corporate Affairs
Mr Keith Clark, Physics (33 years)
Dr Tracey Clarke, Chemistry
Dr Frances Cowan, Clinical Sciences (18 years)
Dr Caroline Cox, Physics
Dr Marcus Cramer, Physics
Mr John Cronin, Library
Professor Mark Davis, Mathematics (14 years)
Dr Amutha Devaraj, Civil and Environmental Engineering
Ms Kathleen Dolan, Kennedy Institute
Professor Paul Dolan, Business School
Dr Federica Dragoni, Mathematics
Dr Goki Eda, Materials
Dr Marianne Elias, Biology
Dr Ibrahim Fahdah, Civil and Environmental Engineering
Dr Colin Fontaine, Biology
Mrs Kornelia Fritsch, Investigative Science
Dr Daliya George, Chemical Engineering and Chemical Technology
Ms Rebecca Ghosh, NHLI
Mr David Gunner, SORA (18 years)
Ms Natasha Hava, SORA
Mr Allen Hazlehurst, Kennedy Institute (9 years)
Miss Michelle Headley, NHLI
Dr Asa Hedman, Medicine
Mr Richard Hey, ICT
Dr Ilana Hill, SORA
Professor Yen Ho, NHLI (34 years)
Miss Janet Holland, Faculty of Medicine (25 years)
Mrs Sally Holt, SORA (7 years)
Dr Richard Hooper, NHLI (13 years)
Mr Sehban Husain, Materials
Mr Henry Jestico, Registry
Mr Francis John, Faculty of Medicine
Dr Angela Jones, NHLI (18 years)
Miss Helen Kayiannidis, Engineering
Mrs Louisa Keane, Library
Professor Paul Klumpes, Business School (5 years)
Mr Veli Koc, Environmental Policy
Dr David Larkman, Clinical Sciences (8 years)
Mr David Ling, ICT
Dr Anton Lokhmotov, Computing
Dr James Louttit, Investigative Science
Ms Han Lu, Clinical Sciences (5 years)
Dr Karl Lyons, Physics
Miss Prupti Malde, SORA (13 years)
Dr Alexandr Malijevsky, Chemical Engineering and Chemical Technology
Professor Istvan Maros, Computing
Dr Ed Marshall, Chemistry (10 years)
Ms Olwenn Martin, Environmental Policy
Ms Cheryl McLaren, EYEC
Dr Tarek Medkour, Mathematics
Ms Rosan Meyer, Medicine
Mr Richard Montgomery, NHLI (29 years)
Mr Peter Moore, SORA (38 years)
Mrs Dee Moore, SORA
Dr Beinn Muir, Bioengineering
Dr Karin Muller, Materials
Ms Maria Murgasova, Computing
Miss Joanna Murray, EPHPC
Mr John Murrell, Business School (10 years)
Dr Stephen Myatt, SORA
Mr Russell Nash, Physics (7 years)
Mr Trevor Noble, Mechanical Engineering (9 years)
Miss Mahrokh Nohadani, Investigative Science (12 years)
Dr Lennon O'Naraigh, Chemical Engineering and Chemical Technology
Dr Daniel Offermann, Chemistry
Mr Andrew Ogleby, NHLI (10 years)
Dr Ana O'Loghlen, Clinical Sciences
Dr Mathew Owens, Physics
Mrs Pat Owen-Smith, Agricultural Sciences (17 years)
Dr Anbalakan Paramasivam, NHLI
Mr Mitesh Patel, Physics
Professor Peter Pearson, Environmental Policy (14 years)
Dr Zoi Pipirou, Molecular Biosciences
Dr Simon Pitchford, NHLI
Miss Lucy Purcell, Environmental Policy
Mr Thomas Quinn, Materials
Miss Alison Ray, Engineering (17 years)
Ms Margaret Reau, SORA (8 years)
Mrs Christine Redmond, SORA (14 years)
Mr Ben Reece, Neurosciences and Mental Health (7 years)
Dr Nicola Roberts, NHLI (6 years)
Mr Jerzy Rosankiewicz, Medicine (15 years)
Dr Frank Rosillo-Calle, Environmental Policy (6 years)
Dr Vincent Rouilly, Molecular Biosciences
Mr Christophe Rouxel, Estates
Miss Manuela Russo, Materials
Miss Madhuri Salker, SORA
Dr David Sanz-Rosa, NHLI
Dr Gemma Shearman, Chemistry (5 years)
Mrs Manjula Sivasatkunanathan, Neurosciences and Mental Health
Dr Kirsty Smith, Investigative Science
Dr Bradley Spencer-Dene, Investigative Science (7 years)
Dr Mark Stein, Business School
Dr Christopher Stevenson, NHLI
Mrs Sue Stone, Registry (16 years)
Dr Hanna Sykulska-Lawrence, EEE
Mrs Alison Tanton, Agricultural Sciences (19 years)
Dr Jens Teodoridis, SORA
Mrs Linda Theobald, SORA (23 years)
Dr Emily Thompson, Investigative Science
Dr Seema Trivedi, NHLI
Dr Dmitri Tseluiko, Chemical Engineering and Chemical Technology
Miss Fanny Turlure, Cell and Molecular Biology
Dr George Tzircotis, Cell and Molecular Biology
Dr Andreas Varnavas, Bioengineering
Dr Pengguo Wang, Business School
Professor Dominic Wells, Neurosciences and Mental Health (14 years)
Dr John Wharton, Investigative Science (25 years)
Miss Marion Williams, Faculty of Medicine (18 years)
Miss Janet Willy, Occupational Health
Miss Clare Wilson, Medicine (10 years)
Miss Elaine Wilson, Agricultural Sciences (21 years)
Professor Roger Woledge, NHLI (6 years)
Ms Wing-Sze Wong, Computing
Mr Darren Wright, Physics (6 years)
Dr Yong Zhu, NHLI
Dr Zheying Zhu, Investigative Science (5 years)

retirements

Dr Jeffrey Bates, Biology (35 years)
Ms Glenys Benson, EEE (15 years)
Dr Robert Crane, Mechanical Engineering (35 years)
Mr Jack David, Mechanical Engineering (22 years)
Professor Jim Hardie, Biology (34 years)
Professor Richard Hillier, Aeronautics (36 years)
Miss Janet Lailey, Occupational Health (9 years)
Mrs Eileen Magee, Finance (11 years)
Miss Frances McEwen, Registry (18 years)

This data is supplied by HR and covers the period 6 December 2009–9 January 2010. It was correct at the time of going to press. Years of service are given where an individual has been a member of College staff for over five years. Asterisk (*) indicates where an individual will continue to play an active role in College life.

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

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

moving in. moving on.

speak out

Story ideas?

We welcome contributions from across the College. The next publication day is 11 February. *Reporter* is published every three weeks during term time in print and online at **www.imperial.ac.uk/reporter**

Contact Emily Ross: reporter@imperial.ac.uk
+44 (0)20 7594 6715

events highlights

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

22 January 2010

27 JANUARY ▸ INAUGURAL LECTURE

Snowballs and supernovae

Pulsed lasers now allow us to deliver peak powers in excess of one petawatt (1015W, over 100 times the world's total electrical generating capacity) to a small target in under a picosecond. The extraordinarily energetic plasmas created in this way can be harnessed to study exotic processes in the laboratory that have previously only been hinted at in observations of distant astrophysical objects such as supernova remnants and plasma jets launched during star formation. In this lecture Professor Smith will explore how high power lasers can be applied to create extreme states of matter in the laboratory, and how they can provide insight into the birth and death of stars.

17 FEBRUARY ▸ DENNIS GABOR LECTURE

Building brains

In his lecture Professor Furber will discuss how computer technology has made spectacular advances since the first program was executed by the Manchester 'Baby' machine in 1948. Sustaining this rate of progress is going to require solving major challenges, such as how to improve the predictability and reliability of transistors, and how to exploit massively-parallel computing resources. Among the questions he will consider is whether massively-parallel computers could be used to accelerate our understanding of brain function and whether a growing understanding of brain function could point the way to more efficient computation.

UNTIL 29 JANUARY ▸ EXHIBITION

Work by RCA students Adam Bainbridge and Anna M.R. Freeman

Blyth Gallery

25–29 JANUARY ▸ THEMED WEEK

Healthy living week

incorporating a healthy approach to everyday life

26 JANUARY ▸ INTERVIEW

Drugs, Politics and Policy

Dr Stephen Webster interviews Professor David Nutt

27 JANUARY ▸ INAUGURAL LECTURE

Snowballs and supernovae

Professor Roland A. Smith, Professor of Laser Physics

28 JANUARY ▸ LUNCHTIME CONCERT

Onyx Brass concert

Read Theatre, Sherfield Building

28 JANUARY ▸ FRIENDS OF IMPERIAL COLLEGE EVENT

Behind the scenes @ Institute of Systems and Synthetic Biology

Imperial's Professor Richard Kitney and Professor Paul Freemont with Professor Nikolas Rose, LSE

1 FEBRUARY ▸ LECTURE

SESAME – a personal perspective

Eliezer Rabinovici, Hebrew University, Jerusalem

3 FEBRUARY ▸ INAUGURAL LECTURE

Species evolving: the evolutionary causes and consequences of biodiversity

Professor Timothy Barraclough, Professor of Evolutionary Biology

17 FEBRUARY ▸ DENNIS GABOR LECTURE

Building brains

Professor Steve Furber FRS, ICL Professor of Computer Engineering, University of Manchester

24 FEBRUARY ▸ LECTURE

Life in the solar system: Saturn's moons reveal their secrets

Professor Michele Dougherty, Chair of Space Physics

3 MARCH ▸ PETER LINDSAY MEMORIAL LECTURE

Financial, ecological and disease-transmitting networks and their dynamics

Professor Lord May of Oxford

take note

Join Club Imperial

Join Club Imperial for a six-month period before 31 January and get a month's free membership. You'll have access to all Sport Imperial gyms and pools, and as part of the promotion you'll receive a free 10s card, meaning you can take part in 10 *Ethos* classes of your choice at any time. You'll also get a personalised fitness programme in the sixth month of your membership.

For further information about the offer, visit: **www.imperial.ac.uk/sports/clubimperial/clubimperialspecialoffers.**

VOLUNTEERING

Spring activities volunteer

Project ID:	2290
Organisation:	Kith and Kids
Date:	6–10 April 2010
Time:	9.30–17.30
Location:	N17 (nearest tube White Hart Lane)

Kith and Kids works with children and young people with learning and physical disabilities. The organisation is looking for a large team to help members with a disability to participate in creative and leisure activities, including sports and games, music, drama, art, massage workshops and excursions. Volunteers get the chance to meet new people, develop interpersonal and teamwork skills, as well as have fun. Kith and Kids offers training and ongoing support, and can reimburse travel expenses up to £75 per week. You will need to have a processed CRB in order to volunteer.

For more information

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

✆ **020 7594 8141**

✉ **volunteering@imperial.ac.uk**

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

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

Stay in the loop

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

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