

Wonder fest

Thousands fill the South Kensington Campus
for the first Imperial Festival

●●● CENTRE PAGES



POSTGRADUATE CEREMONY

Long-serving
staff members
become
Imperial Fellows

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PROFESSOR ALISON MCGREGOR

helps the GB
rowing team
prepare for the
Olympics

PAGE 10



SUPER SPEEDY

Adrian Raby
runs London
Marathon in
support of
cancer charity

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EDITOR'S CORNER

Awe-inspiring

While Imperial regularly invites members of the public to the College for open days, graduations and talks, the Imperial Festival, which took place on 11–12 May **attracted more visitors** than I'd ever seen on the South Kensington Campus at one time – some getting their **very first taste of science**. Walking around the campus doing interviews on the day, I was hugely impressed with the enthusiasm of the staff and students giving demonstrations and struck by the public's reaction to their interactive displays. From primary school child Aaron Woring (quoted in the centre pages) who I met at the ambulance demonstration stand earnestly learning how to perform **mouth-to-mouth resuscitation** on a dummy, to seeing the concentration on my three-year-old nephew Sonny's face as he learnt how to pipette and create **multi-coloured jelly worms** in the Reach Out Lab, it was clear that the Festival had caught people's imagination.

EMILY ROSS-JOANNOU, EDITOR

Reporter is published every three weeks during term time in print and online. The next publication day is 14 June.

Contact Emily Ross-Joannou: reporter@imperial.ac.uk

Imperial will help strengthen cyber security in UK

Improving the way that the UK's digital infrastructure is protected from cyber attacks will be the focus of new research at Imperial, following special recognition by the UK government.

The Centre for Engineering Secure Software Systems (CESSS), which is part of Imperial's Institute for Security Science and Technology (ISST), is one of eight academic institutions that have been recognised as Academic Centres of Excellence in Cyber Security Research. The Centre's research priorities and outputs aim to make government departments, businesses and consumers more resilient to cyber attacks.

Professor Chris Hankin, Director of the Institute (pictured), said: "Easy access to computers and the internet has meant that it is much easier to spread crime across



borders, which has led to a proliferation in illegal activity that is extremely difficult to detect. In the UK alone, cyber crime costs the country £27 billion annually, making it an absolute economic imperative to step up our research in this field. Our Centre of Excellence recognition is the result of many years of hard work by our researchers and I commend them for their outstanding efforts."

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT

Rio Tinto signs education partnership with Imperial

On 15 May, the mining company Rio Tinto announced a new package of scholarships and support for teaching at Imperial with the College joining Rio Tinto's Global Education Partnerships Programme. The programme will establish a worldwide network of leading universities supporting the training of future engineers, who are in great demand by the mining industry globally.

The Imperial partnership will be built around a series of education-related initiatives, including scholarships to provide 12 academically outstanding Imperial undergraduates with financial support and access to mining-related work experience opportunities. Rio Tinto will also fund a geology teaching fellow in the Department of Earth Science and Engineering for five years from 2012, as well as supporting geology fieldtrips for first year Earth Science and Engineering students, who travel to Urro in Spain for hands-on site experience.

The scholarship framework will support the shared focus of both Rio Tinto and Imperial to encourage students from a diverse range of backgrounds to consider careers within the mining sector.

The scholarships will be awarded to students from five of Imperial's engineering departments, supporting the students in the second, third and final years of their courses. Alongside the financial support, the students will have mentoring and internship opportunities with Rio Tinto, as well as the chance to enter its engineering graduate programme.

Professor Jan Cilliers, Head of the Department of Earth Science and Engineering, said: "As well as helping us ensure courses remain relevant to industry today, this link with Rio Tinto gives our students excellent opportunities to gain hands-work experience and form early links with a sector many of them will be heading for."

—JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

Imperial College London

FRIDAY 15 JUNE 2012 • 12.00–15.00
SIR ALEXANDER FLEMING BUILDING,
SOUTH KENSINGTON CAMPUS

Facilities Showcase



The College has a wide range of facilities available for staff to use, from *in vivo* imaging and tissue banks, through to high performance computing. Join us at the showcase event and find out how to access these facilities to enhance your research.

<http://bit.ly/facilitiesshowcase>

Imperial Festival welcomes thousands



Thousands of visitors including members of the public, alumni, staff and students were in party mood on the College's South Kensington Campus on 11 and 12 May, as they explored the first Imperial Festival – a two-day insight into life and research at the College.

Organisers estimate that around 7,000 people came to the Festival, which took place on Friday evening and throughout

Saturday. Over the two days, visitors had the opportunity to try their hand at surgery, thanks to Professor Roger Kneebone's pop-up simulation, have a pint with a professor and take part in hands-on demonstrations by Imperial researchers.

Nearly 1,000 alumni alone registered to attend the alumni-specific events on Saturday, ranging in age from recent graduates to 96-year-old former alumni. Good weather also saw curious passers-by join science fans and families who had already heard about the Festival.

One of the organisers, Natasha Martineau, Head of Research Communications, said: "Imperial's first Festival went better than many of us dared to imagine, with hundreds of staff welcoming thousands of visitors to the event. Around each corner there was another opportunity to discover something new about the College. We're very grateful to everyone who made it possible, and to the sunshine, which made a big contribution to the festival atmosphere."



Amazing how many people can find you if you loiter around an old fire engine. Great to see so many (happy) people at #impfest! —Dr Ashley Brown

Fab science demos at #impfest now watching kids eating Imperial cupcakes in the sun on Queen's Lawn while awaiting talk about skeletons —Alison Goddard

To read more about the day see the centre pages or visit: <http://bit.ly/impfeststorify>

Long-serving staff honoured at Royal Albert Hall

More than 2,500 postgraduates collected their degrees at the Postgraduate Graduation Ceremonies in the Royal Albert Hall on Wednesday 9 May, watched by their family and friends.

The ceremonies were also an opportunity to celebrate the outstanding contributions of long-serving staff members to life at the College, with the former Chief Operating Officer, Dr Martin Knight, pictured with the President & Rector, and the retired Dean of Students, Professor David Lloyd Smith, being admitted to the Fellowship of Imperial College London in recognition of their work.

Martin Knight's 18-year association with Imperial began in 1992, when he became a member of Council. In 2004 he was appointed the College's Chief Finance Officer, and subsequently Chief Operating Officer.

During the ceremony, the former College Secretary, Dr Rodney Eastwood, praised Dr Knight for the role his financial strategy has played in the College's development, including facilitating the redevelopment of Prince's Gardens and the purchase of the former BBC Woodlands site in Hammersmith.

David Lloyd Smith was recognised for his work in the Department of Civil and Environmental Engineering and as Imperial's first Dean of Students.



Professor Julia Buckingham, Pro Rector (Education and Academic Affairs) said: "The compassion and skill David brought to his role as the Department's Director of Studies made him a natural choice to become a College Tutor in 2000 and to then become Dean of Students. Both roles allowed him to use these qualities to enhance the student experience across the whole College."

Mr Ray O'Rourke, Chairman and Chief Executive of Laing O'Rourke, received an honorary degree for his contributions to engineering and UK industry.

—JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

To see Tweets, images and news from the day visit: <http://bit.ly/graduation12>

in brief



Minister launches public-private imaging centre

Imanova, a new state-of-the-art imaging centre co-owned by the Medical Research Council and three of London's leading universities, was formally launched on 5 May at a showcase event attended

by representatives from the founding organisations and the Rt Hon. David Willetts MP, Minister for Universities and Science. Imanova is a pioneering public-private collaboration formed by the Medical Research Council, King's College London, UCL and Imperial. From a facility previously run by the pharmaceutical company GlaxoSmithKline, Imanova now plans to become an internationally renowned imaging centre and the partner of choice for industry and academia. See: <http://bit.ly/Imanova>

More Olympic teams to train at Ethos

Four more national teams of triathletes will be training at Imperial's swimming pool in the Ethos sports centre on the South Kensington Campus during the Olympics. Ireland, Canada, Brazil and New Zealand will join the British, Swiss, French, Japanese and Australian triathlete teams using the pool in the run up to the women's triathlon on 4 August and the men's triathlon on 7 August.

A taste of Japan

On 3 May, Imperial hosted its third Sanka Day, on which local primary school pupils visited the South Kensington Campus to find out more about Japanese culture and life at Imperial. The schoolchildren were given the opportunity to learn basic Japanese, sample some judo and traditional dancing, as well as a bash at Taiko drums. Sport Imperial were eager to host Sanka Day to coincide with this year's Olympic-themed Universities Week.

Staff elections to the Court

Following the recent elections, the members of staff who will join the Court of Imperial College London are: Professor Ian Adcock, Head of Molecular Cell Biology Group (NHLI), Dr Joshua Edel, Senior Lecturer in Micro and Nanotechnology (Chemistry), and Mr Paul Brown, Mechanical Instrumentation Workshop Manager (Physics).



Europe approves billion euro mission to explore icy worlds of Jupiter

The European Space Agency (ESA) has approved a new mission to explore Jupiter and its icy moons, to reveal fresh insights into the habitability of the 'waterworlds' orbiting the giant planets in our solar system and beyond.

On 2 May at a meeting in Paris, ESA's Science Program Committee voted to go ahead with the project, the Jupiter Icy Moons Explorer (JUICE), the first European-led mission to the outer solar system, and the first spacecraft destined to orbit an icy moon. The JUICE spacecraft is scheduled to launch in 2022, arriving in the Jupiter system in 2030.

The proposal was led by Professor Michele Dougherty (Physics), and UK scientists make up four of the 15 members of the ESA Science Study Team for JUICE, which includes researchers from Imperial, Oxford University, the University of Leicester and UCL.

Professor Dougherty said: "Ever since Galileo's discovery of the four largest moons of Jupiter, we've wondered what it must be like on their icy surfaces, looking into a night sky dominated by the gas giant Jupiter. From the volcanic moon Io, to the potential sub-surface oceans of Europa and Ganymede and the ancient cratered terrain of Callisto, these four moons are fascinating worlds in their own right."

—SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT

“Ever since Galileo's discovery of Jupiter's four largest moons, we've wondered what it must be like on their icy surfaces”

Specialists must work together to prevent leg amputations



A lack of cooperation between doctors is allowing the number of leg amputations to remain high, despite major advances in treatment, warned Imperial experts at an international symposium held at South Kensington Campus at the end of April. Researchers highlighted the need for early referral and interdisciplinary management at the CX Symposium, which was attended by 3,500 specialists in vascular medicine from across the world.

Around 100 major amputations – at the ankle or above – are performed in England each week. Most of these occur because a foot ulcer has failed to heal. Evidence suggests that the vast majority could be prevented if patients with ulcers are referred to specialists earlier.

Professor Roger Greenhalgh (Surgery and Cancer) was programme director of the CX Symposium. He has also set up an initiative called ilegx, which aims to alert healthcare professionals to the need for interdisciplinary management of foot ulcers.

"Even though we're making great strides in treatments to improve blood flow to the legs, far too many people still lose their legs, and most of the time it could have been avoided," he said.

"If doctors systematically refer patients early on for specialist treatment, and work together across different disciplines, this would prevent the vast majority of amputations. Unfortunately, there are financial pressures in the health system that discourage doctors from referring patients to other specialists and referring them early, but in reality, the cost of having an amputation is much greater. I hope to convince the specialists at our symposium that they need to work together with other disciplines."

Around half of amputations are in people with diabetes, who have a high risk of foot ulcers. The charities including Diabetes UK, Limbless Association and the Circulation Foundation joined researchers in backing the ilegx campaign.

—SAM WONG, COMMUNICATIONS AND DEVELOPMENT

Medical researchers honoured with prestigious Fellowship

Imperial researchers who are preventing brain injuries in newborn babies, fighting tuberculosis, improving the effectiveness of clinical trials and combating heart disease have been awarded prestigious Fellowships from the Academy of Medical Sciences.

Professor Denis Azzopardi, Professor of Neonatal Medicine (Clinical Sciences), Professor Deborah Ashby, Chair in Medical Statistics and Clinical Trials (Public Health), Professor Jaspal Kooner, Professor of Clinical Cardiology, and Professor Ajit Lalvani, Chair in Infectious Diseases (both NHLI), are among 46 leading scientists honoured with Fellowships.

Academy Fellows are elected for outstanding contributions to the

advancement of medical science, for innovative application of scientific knowledge, or for their prominent service to healthcare.

The new Fellows will be formally admitted to the Academy at a ceremony on 27 June.

Professor Sir Anthony Newman Taylor, Principal of the Faculty of Medicine, said: "The elections this year to the Fellowship of the Academy of Medical Science provide public recognition of the outstanding contributions each has made to advancing medical knowledge. I wish to congratulate them on behalf of the College and Faculty of Medicine on their distinguished and well-deserved award."

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT



School students have great chemistry

On 3 May, eight teams of school students came to Imperial to compete in the final of the London Schools' Chemistry Challenge. They put forward their cases for the greatest discovery in chemistry in the last 100 years using posters, drama, music and presentations.

Over 1,000 GCSE and A-Level students had registered to take part, with academics in the Department of Chemistry selecting the finalists.

The Challenge began last year to mark the International Year of Chemistry, which celebrated the contributions chemistry has made to society.

The final teams had to present in front of a panel of judges including Imperial's Professor of Science and Society, Lord Winston, Emeritus Professor David Phillips, President of the Royal Society of Chemistry, and Professor Tom Welton, Head of the Department of Chemistry.

The winning entry came from team 'Notre Bam', a group of students attending Notre Dame School in Surrey. Their presentation on polymers involved drama and music, as well as a demonstration of chemical knowledge. The team members each received an iPad and will be given a tour of a leading research facility.

The event was arranged by Imperial's Department of Chemistry and the Royal Society of Chemistry, and supported by Imperial's Outreach Office. One of the organisers, Dr Oscar Ces (Chemistry), said:

"This was a fantastic evening where teams of students showcased their talent and demonstrated the impact that chemistry has had on society over the last 100 years. It's been a wonderful way to celebrate the International Year of Chemistry".

— JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

Medals reward Imperial's Olympic support

On 3 May, as part of Universities Week, the College collected two bronze medals in the Podium Awards, which celebrate the success of colleges and universities in supporting the 2012 Games.

During the black tie event, held in a venue overlooking the Olympic Stadium, representatives of Imperial's Commercial Services Division received a bronze medal in the British Council Award for Innovative International Collaboration category. The award recognises the Division's work in providing athletes from six nations with sports facilities and, for the Japanese and Swiss Olympic associations, accommodation.

Assistant Director of Commercial Services and Head of Sport Imperial, Neil Mosley, said: "Being able to host Olympians taking part in London 2012 has been an exciting opportunity for us. A lot of hard work has gone into



this, so we're delighted to receive this recognition."

The Rio Tinto Sports Innovation Challenge, a partnership between Imperial and the metals and mining corporation Rio Tinto, claimed a bronze medal in the category for outstanding sporting project. The Challenge has seen students from the Faculty of Engineering develop projects that aim to enhance the sporting experience available to Paralympians.

Collecting the award were Professors Anthony Bull (Bioengineering) and Peter Childs (Mechanical Engineering), as well as Dr Dominic Southgate (Bioengineering), Project Manager for the Challenge.

Dr Southgate said: "It's a great opportunity to celebrate an initiative that our students have gained so much from. We're really proud of the quality of work the student teams have produced."

The medal winners were selected by an awards committee at Podium, which is the further and higher education unit for London 2012.

— JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

MBA alumnus shares his entrepreneurial experience



While studying at Imperial College Business School, budding entrepreneur Karl Harder came up with the idea for Abundance, an investment company that enables communities and individuals to invest directly in renewable energy projects across the UK and share in the benefits.

Having recently launched the company, after three and half years spent setting it up, Mr Harder returned to campus for the Imperial Festival on 12 May. He and fellow alumni who have also gone on to start their own businesses, shared their experiences with staff, students and the public.

While studying for his MBA, Karl pitched his idea to Imperial's Innovation, Entrepreneurship and Design projects programme and it was accepted. The programme gave him the structure to explore and develop the concept, as well as a team of people to work with.

Since launching Abundance, the company raised £135,000 in four days, with over 1,000 people signing up. It has attracted a wide range of investors with one person investing a lump sum of £20,000 and another who gave the investments as gifts to other people.

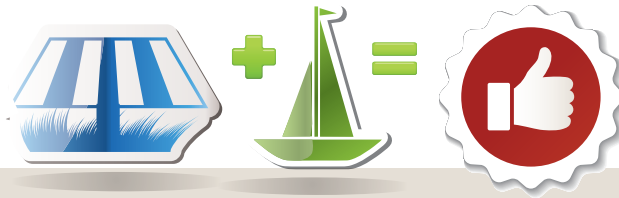
Speaking to *Reporter* about his tips for budding entrepreneurs, Karl said: "Nothing is impossible and don't give up. When you come across a problem, there will always be a way round it, just take your time and work it out. Don't be afraid of asking questions, no matter how stupid they seem. Always recruit the very best people you can – this is the only area you should never compromise on."

— TANYA GUBBAY, COMMUNICATIONS AND DEVELOPMENT

"Don't be afraid of asking questions, no matter how stupid they seem"

media mentions

—COLIN SMITH, COMMUNICATIONS AND DEVELOPMENT



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Tripping the light fantastic

NEW SCIENTIST ▶ 14.4.2012



Shining infrared light on cancer could speed up diagnoses for patients, reported *New Scientist*. Current methods use staining to highlight DNA and protein in cytoplasm. Cancer cells contain a higher ratio of DNA to protein and a larger nucleus, making it

possible to judge whether cancer is present. The new technique enables the team to measure the way in which the chemical bonds in each molecule absorb infrared light. By measuring the level of absorption, the amount of DNA and protein in a sample can be calculated and an image generated to highlight areas with a cancer-like ratio. “You put in the tissue and you can get an image in 10 to 20 seconds,” said Professor Chris Phillips (Physics).

Solar triumph

NEW SCIENTIST ▶ 25.4.2012

The Tūranor PlanetSolar entered the record books to become the first solar-powered boat to circumnavigate the world. The project demonstrates the potential of zero-emission transport, commented Dr Gregory Offer (Mechanical Engineering). “Solar power is a game changer for marine propulsion, and these guys have shown it can be done,” he added. The boat is a 95-tonne carbon fibre catamaran fitted with more than 530 square metres of photovoltaic panels capable of generating 90 kilowatts, which powers an electric motor connected to a propeller. The yacht also carries 10 tonnes of lithium batteries to store electricity.

Filtering out

DAILY MAIL ▶ 25.4.2012

Financial incentives exist for internet service providers (ISPs) not to create filters that block pornographic material from home PCs, said Imperial academic, Professor Tommaso Valletti (Business School). “Watching films, including pornographic ones, uses more bandwidth and that way ISPs can sell you costlier broadband packages,” he told the *Daily Mail*. “Having a filter turned automatically on, with the ability to switch off if you enter a password, is a very good idea for families,” he said. He added that ISPs already had the ability to filter out other illegal websites, such as child abuse sites, and that there was no excuse to not filter out pornography.

Experts claim cancer care set back

THE DAILY TELEGRAPH ▶ 11.5.2012



The National Institute for Health and Clinical Excellence (NICE) has decided against allowing the use of

prostate cancer drug cabazitaxel by the NHS, sparking criticism from some UK experts. The drugs funding watchdog claims that cabazitaxel only extends the life of patients by three months and, at £22,000, is too expensive. “The cost argument on which NICE bases their decision is false, giving a much higher estimate of true cost than applies in reality,” Professor Jonathan Waxman (Surgery and Cancer) told *The Daily Telegraph*. “As a result, yet another successful and effective cancer treatment is denied to our patients, a mortifying blow to cancer care in England,” he added.

awards and honours

HUMANITIES

Japanese speech contest

Third year students Connie Kou, Wai Shin Ngam and Karen Chong, from the Department of Bioengineering, recently won the Cultural Inheritance Prize in the finals of the Japanese Speech Contest for University Students. The students, who are studying Japanese in the Department of Humanities, gave a spoken presentation about the Chinese New Year. In addition, a third year Chemistry student, Joel Boom, was selected as a finalist in the Studying Japanese as an Elective or Optional Course category. The annual event, which featured 10 individual

speeches and four group presentations, is co-organised by the British Association for Teaching Japanese as a Foreign Language and the Japan Foundation.

BUSINESS SCHOOL

Gann chief guest of Tata group

Professor David Gann CBE, Deputy Principal of Research and Business Engagement (Business School), pictured, was the chief guest and speaker at the 2012 Tata Innovista regional awards, held at the Taj Lands End Hotel in Mumbai, India, on 29 March. The contest is



a platform for recognising innovative products or service ideas within the Tata group of companies.

COMMERCIAL SERVICES

Good food awards for Catering

On 15 March, Catering received an award for its participation in Sustainable Fish City – a campaign calling on companies and restaurants to use more sustainable fish sources, which has seen 14 London universities sign up to its pledge. The Commercial Services Division also won an award

for purchasing and promoting sustainable products at the Good Food on the Public Plate awards. The awards were presented at City Hall by journalist Rosie Boycott, Chair of the London Food Board, which advises the Mayor of London on food issues.

HUMANITIES

PEN/Hessell-Tiltman Prize

Professor David Edgerton (Humanities) has been shortlisted for the 2012 PEN/Hessell-Tiltman Prize for history for his book *Britain's War Machine*, published by Allen Lane. The prize is awarded annually for a book of specifically historical content, not primarily written for the academic market. See the Imperial magazine for a feature on Professor Edgerton's work: <http://bit.ly/dedgerton>



Tackling fungal forces could save crops

More than 600 million people could be fed each year by halting the spread of fungal diseases in the world's five most important crops, according to research published by Imperial researchers in the journal *Nature* on 11 April.

Furthermore, data reviewed by scientists suggests that in 70 per cent of cases where infectious disease causes the extinction of a type of animal or plant, an emerging species of fungus is behind the problem. Evidence suggests this figure is increasing.

The scientists behind the study, from Imperial, the University of Oxford and institutions in the US, are calling for new solutions to prevent the proliferation of existing and emerging fungal infections in plants and animals in order to prevent further loss of biodiversity

and food shortages in the future.

Fungal infections presently destroy at least 125 million tonnes of the top five food crops – rice, wheat, maize, potatoes and soybeans – each year, which could otherwise be used to feed those who do not get enough to eat. These crops provide the majority of calories consumed by people.

“We need to strive to prevent the emergence of new diseases”

Dr Matthew Fisher (Public Health), a corresponding author of the study, said: “The alarming increase in plant and animal deaths caused by new types of fungal disease shows that we are rapidly heading towards a world where the ‘rotters’ are the winners. We need to strive to prevent the emergence of new diseases as we currently lack the means to successfully treat outbreaks of infection in the wild.”

—SIMON LEVEY, COMMUNICATIONS AND DEVELOPMENT

Mixed bacterial communities evolve to share resources

New research from the Department of Life Sciences and the Grantham Institute for Climate Change shows how bacteria evolve to increase ecosystem function by recycling each other's waste. The study, published 15 May in *PLoS Biology*, provides some of the first evidence for how interactions between species shape evolution when there is a diverse community.

Predicting how species and ecosystems will respond to new environments is an important task for biology. However, most studies of evolutionary adaptation have considered single species in isolation, despite the fact that all species live in diverse communities alongside many other species.

Researchers collected naturally co-occurring bacteria from temporary pools around the roots of beech trees at



Silwood Park Campus (pictured). They grew five of these bacterial species in the laboratory, studying them, both in isolation and mixed together, for 70 bacterial generations.

The team found

that bacteria that evolved in a mixed community with other species altered their feeding habits to share resources more effectively amongst themselves and to make use of each other's waste products in a cooperative manner. In contrast, when grown alone, the same species evolved to use the same resources as each other, thereby competing and impairing each other's growth

“Our findings have wide implications for understanding how species respond to changing conditions,” said Diane Lawrence, a PhD student (Life Sciences and Grantham Institute) and lead author of the study. “Because all species live together with many hundreds of other species present, the kind of phenomena observed here are likely to apply widely”.

—ADAPTED FROM A MEDIA RELEASE BY PLOS BIOLOGY

Molecular gene changes may show cancer risk early



Dr James Flanagan, a Breast Cancer Campaign scientific fellow (Surgery and Cancer), has uncovered the first strong evidence that molecular or ‘epigenetic’ changes in a gene can be associated with breast cancer risk, and can be detected many years before breast cancer develops.

The research, which was published on 1 May in *Cancer Research*, involved 640 women with breast cancer and 741 controls enrolled in three previous studies, the earliest of which began in 1992. The researchers analysed blood samples donated by the women on average three years before they were diagnosed with breast cancer, to find out whether the alteration of single genes by a process called methylation can predict an increased breast cancer risk.

Dr Flanagan found that the women with the highest level of methylation on one area of a gene called ATM were twice as likely to get breast cancer, as women with

the lowest level. This result was particularly clear in blood samples taken from women under the age of 60.

“We hope that this research is just the beginning of our understanding”

Dr Flanagan said: “We know that genetic variation contributes to a person's risk of disease. With this new study, we can now also say that epigenetic variation, or differences in how genes are modified, also has a role. We hope that this research is just the begin-

ning of our understanding about the epigenetic component of breast cancer risk, and in the coming years we hope to find many more examples of genes that contribute to a person's risk.”

—ADAPTED FROM A NEWS RELEASE ISSUED BY BREAST CANCER CAMPAIGN



Along with a call for proposals came a set of guidelines for the demonstrations. Each group had a relatively small space and was asked to focus on talking with visitors – from young children to members of the Council – and giving them something to handle. “We wanted to move away from the Power Point and posters you might find at academic conferences,” explains Natasha, “and create an environment where our many audiences could have a two way exchange with the scientists and where their questions and ideas might inform or stimulate the way we do research”.

Professor John Seddon (Chemistry) got his first taste of public engagement at the Imperial Festival and explains how he enjoyed considering what demonstrations might work using

Festival fever!

It’s midday on Saturday 12 May on the South Kensington Campus – the sun is shining, bunting and balloons frame the buildings, 1920’s jazz music is floating through the air and the site is alive with staff, students, alumni and their families and friends – all here for the inaugural Imperial Festival.

On 11–12 May the College opened its doors to the public and invited them to take part in hands-on demonstrations, music, dancing, stand-up comedy, street performances and art.

“The idea of the Festival is to provide an annual glimpse into some of the exciting work going on in Imperial laboratories today,” explains Tom Miller, Director of Communications and Development. “It gives people a chance to quiz the scientists on the front line about their discoveries and to learn or discover something they didn’t know Imperial was involved in.”

Conceived two years ago as part of a review into the membership and purpose of the College Court, the original idea for a festival event was born out of the desire to engage people, institutions and organisations outside of Imperial.

Its potential to reach broader audiences including staff, alumni and supporters as well as the general public, was met with the decision to run it over two days and partly on a weekend to make it family friendly. The final format had four key elements, starting with a gala dinner on the Thursday night to celebrate staff achievements over the year, the launch of the new Court on

Friday, an Alumni Reunion on Saturday, and the Festival itself on Friday evening for adults and on Saturday afternoon for families.

The event was organised in-house by a team led by Natasha Martineau – Head of Research Communications (Communications and Development) – who took on the mammoth task of creating the College’s biggest ever public event working with colleagues including Harriet Martin and Katie Weeks, and colleagues from across College, especially those in Commercial Services and Facilities.

“The main thinking behind the programme we put together was to lift the lid on the amazing work that goes on at the College, and to make it available to anyone who might be interested in what we do and how it affects their daily lives,” explains Natasha. “When you work here you sometimes forget what a privilege it is to have access to this work, and the passion of the people who do it.”

Research undertaken by the team revealed that lots of staff and students across College were already involved in public engagement activities. Hoping to draw from this group, an invitation went out to all departments and institutes. Each one came back with a suggestion or two of something they wanted to contribute to the festival – leading to over 30 interactive displays in and around the marquee on the Queen’s Lawn.

“We wanted to lift the lid on the amazing work that goes on at the College”



What was the highlight of



“The highlight was seeing how a coronary stent works. A former colleague of mine

has just had a second one put in, so it was great to be able to see one *in situ*. I also enjoyed seeing the heart with the main artery attached to it. I’ve never seen that before except in my O-Level Biology class. It’s been a real learning curve.”

MARGARET ATKIN, VISITOR

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his 14-year-old son as a testing ground to ensure they would be interesting to a public audience. “We had to put on demos that were within the constraints of being safe, non-toxic, non-explosive and not too smelly, but that would make people stop at the stand and think ‘that would be a fun thing to do’.”

John enthusiastically presented a range of experiments at the Festival – including a petri dish full of ferrofluids that, when you applied a magnetic field from below, formed beautiful spikes aligned along the magnetic field. He also did an experiment with corn flour and water to illustrate the properties of materials that could make flexible body armour for soldiers or skiers but would immediately solidify in an accident and offer good protection on impact.

Outside the context of the Festival, public engagement is becoming an increasingly important part of the expectations of public bodies that fund research. “In a way I welcome this

approach,” says John, “We get public funding, so we have to justify what we are doing, and it’s also a good way to encourage a new generation of scientists to come forward.”

Dr Sandra Shefelbine (Bioengineering) is a big fan of public engagement and has worked with the BBC, the Dana Centre and the Wellcome Trust. Sandra was keen to get involved in the Festival and gave a lecture on how bones work (called *Skeletons out of the closet*).

“I think any time you try to describe your science to a lay audience, it benefits how you look at it, and events like this help to spark the intrigue of science at an early age.” she says. “I could describe everything in terms of equations or super-complicated modelling but in order to explain it in a way in which everyone can understand, you have to break it down into what is really important. That often leads me to start thinking ‘Why do we

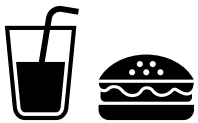
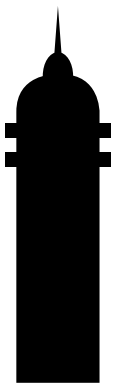
normally talk about it in such a complex way – is it really necessary?”

The Festival attracted around 7,000 people over the weekend, which is a clear sign of the public’s interest in science, and the event is being fully evaluated by the team over the next few weeks. The hope is that this will become an annual event. “We had so many suggestions, I hope we can return to them in coming years. I also hope the Festival will continue to help public engagement become an integral part of the life of a researcher at Imperial,” says Natasha.

“I think it was the sense of wonder that captured people’s imagination,” muses John, “and as a demonstrator it was also a lot of fun!”

—EMILY ROSS-JOANNOU, COMMUNICATIONS AND DEVELOPMENT

“I think any time you try to describe your science to a lay audience it benefits how you look at it”



Festival frenzy ▾ (Top left to bottom right) Victorian quack Dr Gripnerve, a bioengineering student testing a device developed for the Rio Tinto project, Team America from the EFL at the staff Olympics, a visitor at the Surgery and Cancer stand, jelly worms in the Reach Out Lab, iCub robot demonstrates its talents, ambulance crew teach life-saving, Professor John Seddon demonstrating his elephant’s toothpaste experiment, colourful festival art, awe and wonder in Professor Kneebone’s inflatable operating theatre, a guest enjoying the alumni reunion and staff cut loose at the silent disco.

the Festival for you?

ing it up and back the Queen’s Tower without collapsing! There are beautiful views. I ded to go up as a stu- out never got round to s of the campus is still ame.”

BUCK, GRADUATED FROM AL IN 1979

“I’ve been learning how to check if someone’s unconscious with a dummy. First you have to lift up their head and then put your ear next to their nose to check if they were breathing. If they are not then you have to press their chest 30 times. Then lift up their head and pinch their nose and breathe twice really hard into the mouth. I think it will be really useful in the future.”



AARON WORING, VISITOR



»» See a slideshow of festival pictures at: <http://bit.ly/festivalpics>



Professors Alison McGregor (Surgery and Cancer), pictured, and Anthony Bull (Bioengineering) and their research groups are using their expertise to help the Great Britain rowing team prepare for the London Olympics.

Helping GB Olympians row to glory

Alison McGregor's work involves the application of technology to allow the Great Britain rowing team and their support teams to better understand how their bodies are moving and performing, so that they can improve their rowing techniques. Reporter caught up with Alison to talk about the research.

What has your research involved?

Four times a year, athletes from the GB rowing team come into our lab. We fit their bodies with electromagnetic sensors and have them use a rowing machine. The sensors give us real-time bio-feedback, on how the body is performing – particularly on what their backs and legs are doing. Together with the team's coach and physiotherapist, we can use this instant data to suggest ways that they can be more efficient in their movements, and minimise the wear and tear on their bodies, all while they're still on the rowing machine.

So the bio-feedback can help head-off an injury?

Yes, because we're getting data every few months over a long period, we're able to keep an eye on any changes in the way an area of the body is performing, which can help us identify quite early on where a particular part is under strain or likely to be undergoing damage. The GB team's physiotherapist can then use that information to start exercises or change techniques to tackle the problem area.

► PhD student Erica Buckeridge, a member of Alison's team, carrying out research testing on Olympic athletes in the rowing category of heavyweight women.

“I think the fact that this is a home Olympics makes [the team] even more driven”



What is your research, and how did you become involved with the GB rowing team?

My own research looks at the musculo-skeletal system and the mechanics of injury, while my collaborator on the project, Professor Anthony Bull, has brought in his expertise in developing the sensors and the science behind them, and I've been working on how this can be applied. We've been working with the team since the late nineties. We first got involved after being persuaded by a very enthusiastic Imperial College Boat Club coach, Bill Mason, who has since retired.

Are you a rower?

Not at all. I have been out on the water once and, in a way, it was quite frightening! It's fine if you're rowing by yourself but there's something quite daunting about having to row as part of a team, all relying on each other to stay in sync and pull their weight. I've certainly come to know a lot about rowing and rowing terminology though.

Will you be at the Games to cheer them on?

I'm fortunate enough to have tickets to watch. We've come to know the athletes over the time we have been working with them. I have a sense of how much they have invested in this, and what they have gone through and given up, all of which makes the competition itself even more nervewracking!

You met again with members of the rowing team recently. How did they seem?

I'm always impressed at how their focus has been sustained all the way through the period they've been preparing for this. I wouldn't say they're any more or less driven than months earlier, because they've always seemed to have such a consistently high level of focus. Obviously they've competed in lots of different races too, though I think the fact that this is a home Olympics perhaps makes them even more driven.

What is next for your research?

The GB team seem keen to continue working with us and, funding permitting, it's research we'd like to carry on with. There are a few other sports that the techniques we've developed could work well with, such as cycling and sailing, so those are areas we might explore in the future.

— JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

inside*

story

mini profile

Sir John Armitt

The Chairman of the Olympic Delivery Authority, Sir John Armitt, who delivered a distinguished guest lecture at Imperial recently, gave *Reporter* an insight into how London has been getting ready for the Games.



How have you ensured that the project was run on time and achieved within budget?

By ensuring that decisions were made on time, being very disciplined in change management, and regularly auditing to ensure optimism was not blinding us to the risks. Commercially, the type of contract we implemented, where a price is agreed with the contractor prior to the start and, on completion, any savings are split between the contractor and purchaser, also helped. Alternately, if any additional costs were incurred, these were also split.

What was the biggest challenge you faced?

The loss of private sector funding in 2008 for the Olympic Village. We had to finance it using our contingency monies and other savings.

What has been your favourite thing about meeting Olympic athletes?

The striking thing is their personal journey. They are all incredibly focused and determined and act as role models for anyone with ambition.

What do you want people to remember about the London Olympics?

How wonderful it is to be in London and, in 20 years, how the city will have benefited from hosting the 2012 Games. Indeed, housing stock increased by 3,000 for the Games with a further 8,000 planned in the Olympic Park over the next 20 years. The international broadcast centre and main press centre represent one million square feet of new employment space in Hackney, with the potential for thousands of jobs. London will have a new place for sport, leisure and work, shifting the balance towards the east.

If you could compete in the Olympics, which sport would you go in for and why?

Sailing has been a hobby for many years, so I would enter the Star Class yachting.

—TANYA GUBBAY, COMMUNICATIONS AND DEVELOPMENT

Hugh Dudley remembered

On 25 April, 75 people came together at St Mary's Campus to commemorate the professional life of Professor H.A.F. Dudley, who chaired the Academic Surgical Unit from 1973–88. Professor Dudley died on 28 June 2011. Members of Professor Dudley's family attended, along with past colleagues and trainees, some of whom had travelled from as far as the USA, the West Indies and Australia to attend. Professor Peter Fielding, former trainee and Assistant Director of the Academic Surgical Unit from 1972–1981, reports on the event:

"The eight celebratory talks painted a consistent picture of a man with extraordinary breadth and depth in his original writings. Hugh produced 260 peer-reviewed papers on more than 25 subjects, with citations exceeding 2,600. He was a prolific writer and editor of many of the major texts of the day devoted to surgical science, clinical methods and operative techniques.

Hugh's ability to take complex ideas, identify the core issues and then explain and argue for a point of view, made him a frequent guest on radio discussion programmes. His



intellectual curiosity and ability to synthesise ideas made him a controversial person, particularly when he was confronted by academic mediocrity masquerading as erudition, for which he had little tolerance. By contrast, the hours of support for the early papers of his trainees engendered a strong sense of loyalty, which was so evident from those present to celebrate Hugh's life and work.

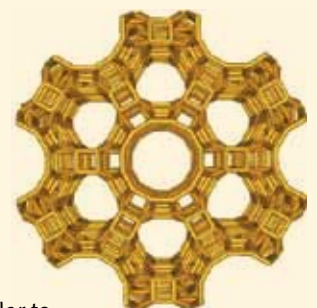
Hugh was a hard taskmaster, but to those who raised their game to their potential, he was kind and supportive. It was his patients and nursing staff (some of whom attended this event) who saw more of the empathic man willing to listen, nurture and advise. Many of the audience were less aware of Hugh's strong affinity and respect for the military and his systems approach to healthcare provision, which remains particularly relevant to this day."



SCIENCE FROM SCRATCH

Zeolite

explained by Antonio Torrisi,
MSc Science Communication



Zeolites, literally "boiling stones" from the Greek words *zeo* (to boil) and *lithos* (stone), owe their name to the Swedish mineralogist Axel Friedrik Cronstedt, who observed water vapours being released from these materials when heated. Zeolites are made of silica-like sand and aluminium. They have a porous structure similar to a sponge, with cavities as small as thousandths of microns. The cavities form regular channels through which gas and water can move. Zeolites can be either natural or synthetic materials and are economically important. Their industrial uses include as adsorbents for water purification and gas separation in industrial processes, or as catalysts for the 'cracking' of petrol to make gasoline. Nanoparticles of zeolites could also be introduced into the human body to deliver anti-cancer drug molecules contained in the zeolite's cavities, as a therapy that would attack only the sick cells, sparing the healthy ones. Advanced applications of zeolites aim to capture radioactive elements, which are large, positively charged, spherical atoms. They can be trapped in the cavities of the zeolites and can, therefore, be removed from soil or water.

VOX POP

AT THE POSTGRADUATE GRADUATION CEREMONIES ON 9 MAY, REPORTER ASKED STUDENTS:

WHAT HAS BEEN YOUR FAVOURITE THING ABOUT STUDYING IN LONDON?



“London is such a vibrant city to live in. One of the things I love to do with my free time is cook for my friends and I’m a big fan of using some of the more intricate spices in the meals I prepare. London is a perfect place to shop for these, once you’ve done some exploring and know where to look – I usually head south or east.”

—MUHAMMAD AHMAD QADRI, MSC ADVANCED MECHANICAL ENGINEERING



“Being based in London has allowed me to meet so many new people and make lots of international friends. I’ve loved going to the West End to see shows like Phantom of the Opera and Les Miserables. Being here has also been great for internships; I was able to do one recently in Canary

Wharf. I’m going back to China to work now, but London will always be a second home.”

—YIJIE SUN, MSC FINANCE

Running for Jack

Dr Adrian Raby, Clinical Lecturer in Medical Ethics and Law (Public Health), completed the Virgin London Marathon on 22 April in support of the Teenage Cancer Trust (TCT). He explains why he got involved with the charity.

“Two years ago I was introduced to a teenager called Jack Chester, who had a rare form of bone cancer, at a fundraising event for the TCT. Rather than let the illness get him down, Jack devoted his time and energy to supporting and raising money for TCT. Following Jack’s death in 2010, and with his mum’s support, I decided to run the marathon in his name and to raise money for the charity, which supports the building and running of specialist units within NHS hospitals, where teenagers with cancer can be treated in an environment that caters for their unique needs. In fact, it took two years of training to even reach the starting line, following a serious hip injury last year, which resulted in my pulling out of the event in 2011. Fortunately, this year I made it to the starting line injury free. The conditions were perfect, with a light breeze, and I was thrilled to have finished



in two hours and 59 minutes. I have wonderful memories of the day and, in particular, of the support from family, friends, colleagues and Jack’s mum [pictured with Adrian above]. So far, £2,767 has been raised for the charity, with donations still coming in.

To support the cause visit: www.virginmoneygiving.com/adrian

Improving healthcare experiences



On 7 March, two final year medical students, Zainab Oseni and Amanda Owusu-Agyei, hosted an event called *Learning Disability: Challenging our Understanding*, attended by Imperial medics. Zainab explains why she decided to organise the event and shares her highlights of the day.

“My mother used to be a carer for people with learning disabilities, so she often told me about the problems they had in the healthcare system. A recent independent enquiry showed that healthcare professionals’ limited knowledge, training and education about learning disability contributes to the

health inequalities faced by patients with learning disabilities. The aim of the event was to encourage dialogue between medical students and people with learning disabilities about their health needs and healthcare experiences, and try to tackle the problems raised by the enquiry. We hoped that what the students learned on the day would influence their future practice as doctors, and that this would result in better healthcare experiences for people with learning disabilities.

The event started with a talk by Dr Elizabeth Muir (Public Health) on the medical perspective of health needs and how to deliver better care to patients with learning disabilities. This was followed by a presentation by Caroline Jones from Mencap – a learning disabilities charity – who spoke alongside a number of people with learning disabilities from the Hammersmith and Fulham Advocacy Group. The presentation highlighted their healthcare experiences and gave a brief introduction to the history of learning disabilities in the UK. After this, we broke into



◀ Zainab’s poster advertising the event

“We broke into small groups and discussed cases of healthcare inequalities based on real-life scenarios”

small groups and discussed cases of healthcare inequalities based on real-life scenarios. We were also given useful materials on how to implement some of the initiatives we had learned about. I think the event went well – the informal setting offered students the opportunity to interact with people with learning disabilities and gain a deeper understanding of the issues that they face.”



INVENTOR'S CORNER

DNA detection

Dr Tim Albrecht is a Senior Lecturer in the Chemical Physics Group (Chemistry). His research interests include understanding the transfer of electrical charge in liquid environments, its transport across individual molecules and applying this to develop single molecule biosensors that can be utilised as a DNA sequencing device.

What have you developed?

Our biosensors are composed of a roughly 100nm thick membrane in the centre of a 5mm x 5mm chip device with a single, nanometer-sized pore drilled into it, known as a nanopore. Once integrated into a liquid cell, the two compartments on each side of the membrane can only communicate through this pore. We can apply an electric

field to drive a DNA strand through this small space and study its properties such as length, shape, charge or its interaction with proteins. We aim to develop this technology for DNA and biopolymer sequencing by integrating a tunnelling junction, which enables tunnelling currents to pass through the nanopore. Tunnelling current is a highly distance-dependent and material-specific quantum mechanical effect that allows for rapid and accurate identification of individual DNA bases within a DNA strand.

Why is this important?

We aim to use this technology to map DNA methylation patterns, which indicate the disease state of a cell. These patterns are, for example, disturbed in cancerous cells so we are able to develop this as a preliminary detection device for specific diseases.

How is this innovative?

The methods currently in use, for example Bisulfite DNA sequencing, require sophisticated laboratory environments and result in chemical modification of the DNA. Nanopore-based technology could be used in a handheld device, potentially in a personalised care environment at a lower cost. We are hoping to make these devices within the next one to three years.

—KAILEY NOLAN, IMPERIAL INNOVATIONS

“We can apply an electric field to drive a DNA strand through [a nanopore]”



Love on campus

Imperial alumni Idy Law (Civil Engineering) and Anthony Leung (Computing), who graduated in 2004, returned to the South Kensington Campus for a pre-wedding photoshoot on 12 April. Idy shares their story:

“I was introduced to Anthony through one of his friends, whom I met at a freshers event held in Hong Kong, the summer before we started at Imperial. Anthony and I quickly became friends and we ended up living in Fisher Hall on the same floor, so we spent a lot of time with each other. Ten years later we are still together and remain in London. Anthony proposed to me last year on Valentine’s Day, while we were skiing in St Moritz. We were having dinner at a hotel in the mountains and I was so shocked that he had to ask me three times before I could respond! We are getting married in September in Bali, with many of our coursemates from Imperial attending but we wanted to return to the College beforehand, as we have many good memories here. It was great coming back – we reminisced about studying in the library and eating panini in the café in the Sir Alexander Fleming Building – we were also amazed at how much the campus has changed.”

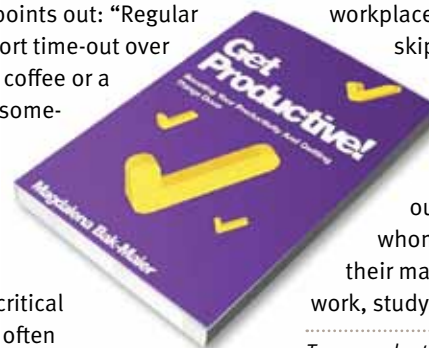
“We ended up living in Fisher Hall on the same floor, so we spent a lot of time with each other”

How to boost your productivity

Holly Crane, Career and Professional Development Coach and Consultant (Business School), reviews *Get Productive! Boosting Your Productivity And Getting Things Done*, a book by Dr Magdalena Bak-Maier, Organisational Development Consultant (Learning and Development Centre).

“I have attended one of Magdalena’s time management workshops at the College in the past and got a lot out of it, so I was looking forward to reading her book. One of the great things about the book is that it focuses not just on strategies for creating better or more efficient day-to-day outcomes, but also on sustainability. Magdalena spells out the important but often neglected message that unless we look after the producer, i.e. ourselves, there is not much hope

of remaining productive in the longer term. As she points out: “Regular exercise, a short time-out over a good cup of coffee or a phone call to someone you care about, can do wonders for your overall productivity.” This is a critical message that often seems to get lost, especially



in highly driven, achievement-focused workplaces. I have to confess that skipping over the importance of taking time out to refresh, is something our team can be just as guilty of as many of our executive clients, with whom we work on how to juggle their many commitments, such as work, study and family life.”

To pre-order the book visit:
<http://amzn.to/bakmaier>

obituary

Lorna Bottomley



Lorna Bottomley, formerly Assistant Secretary of Westminster Medical School, died on 28 December 2011 in Yorkshire. Julia Anderson (Surgery and Cancer) shares her memories of her colleague:

“Lorna was Assistant Secretary of Westminster Medical School from 1947 until her retirement in 1982. She graduated from Somerville College, Oxford, gave wartime service at Bletchley Park, and was briefly a civil servant in the Ministry of Education. During her 35 years at Westminster, she supported successive generations of medical students who came for clinical training following their basic medical science studies at Oxford, Cambridge, UCL or King’s College London. She always placed particular importance on students’ studies and career development.

Lorna was a superb wordsmith. Her drafting skills were legendary; the four deans with whom she worked relied heavily on the precision of her expression, the accuracy of her grammar and her ability to conjure a well-turned phrase with elegance and, often, slightly ironic humour. No speech, important letter or report went without being vetted (and always improved) by Miss B, as we knew her.

Lorna was a delightful colleague: approachable, friendly, loyal and supportive – she brought a warm touch to administration. She did not believe in a clear desk but knew what was in each pile and where in the pile the particular paper might be. She knew each student individually and remembered them long after they had qualified. That Westminster students the world over have such fond memories of their clinical course is in no small measure due to Lorna.”



Will Smith on campus

Actor Will Smith, who was in London on 16 May for the premiere of *Men in Black 3* paid a visit to watch British Olympic hopefuls train in the *Ethos* sports centre on the South Kensington Campus. Will took to the basketball court with GB captain Drew Sullivan, got hurdling tips from Perri Shakes-Drayton and swapped a few punches with boxer Anthony Joshua. Will also met with members of Commercial Services. Kelly Mckenzie, *Ethos* Centre Manager, said: “It was a privilege not only to have an A-list star such as Will Smith in our Centre but Team GB hopefuls as well. It is always a bonus to start your working day watching Will Smith bounce around the sports hall! I love his films but my favourite is *Bad Boys*.”

When Will Smith met team GB: <http://bit.ly/willsmithimperial>

Spotted a photo opportunity?

Capture a slice of the action and get your pictures published at *Reporter Online*.

Email your photos of College and campus life with a short caption explaining what’s happening in the photo to the Editor at: reporter@imperial.ac.uk

Career insights at annual Athena Lecture

On 3 May, Dame Nancy Rothwell, the first female President and Vice-Chancellor of the University of Manchester, gave this year’s Athena Lecture entitled *Inside the Brain*. The lecture covered her career and her research as a neuroscientist, including her work on the causes of stroke and related conditions. Dame Nancy spoke to *Reporter* before the lecture:

Did you always want to be a scientist?

Probably; apparently I said I was going to be a scientist when I was five! Later on, though, I actually veered towards art and even took an A level in the subject.



What is your proudest achievement?

Discovering that a protein normally linked to the immune system and inflammation is a cause of brain damage, and

that blocking that protein could be useful in treating stroke and related disorders.

As the first woman President and Vice-Chancellor of the UK’s largest university, what has been your biggest challenge?

I don’t think there has been anything that related to me being a woman, but I started at the time of greatest uncertainty for universities, just as the cuts in government funding were being announced and amid the debate about the new student fee regime.

How do you juggle your research with your role as head of a university?

Nominally Fridays are set aside for research but, inevitably, I juggle between the two and end up reading a lot of research-related papers in the evenings. Sometimes I do miss not being able to spend more time on research but I also love being a VC.

—JOHN-PAUL JONES, COMMUNICATIONS AND DEVELOPMENT

mailbox

College Secretary retires after 25 years' service (issue 245, published 29 March)

Rodney Eastwood, Former College Secretary, says:
I just wanted to say that after almost 25 years at the College, it meant a lot to see so many people at my retirement events and especially to read the comments left in the book. Many thanks to everyone who came and for the contributions towards the excellent gifts that Jennifer and I will put to good use.

Henry Edward Armstrong medal (issue 246, published 3 May)

Maria Fapojuwo says:
Dr Vivian, I am very proud of you for your unbeatable commitment and dedication towards your degrees. You have set a standard for those who look up to you. You are a force to be identified with; keep it up. Congratulations!!!

Talk to us!

Send us your comments on any Reporter story at: www.imperial.ac.uk/reporter, or email: reporter@imperial.ac.uk



Tiny soil mites

A new study has shown scientists that physical traits (such as mites' body sizes) can help to predict a population's short term response to environmental change. Dr Arpat Ozgul (Life Sciences) varied the amount of food available to laboratory populations of mites whilst monitoring their numbers and measuring these physical traits. When food supply was limited, the mites declined both in number and in body size.

Welcome new starters*

Mrs Leila Abar, Public Health
Mr Abel Abebe, Catering Services
Miss Funmi Abiola, NHLI
Mr Johnny Adefowora, Catering Services
Dr Lionel Agostini, Aeronautics
Dr Rehiana Ali, Medicine
Dr Lorraine Als, Medicine
Professor Luis Aragon Alcaide, Clinical Sciences
Dr Ricardo Aramayo, Life Sciences
Miss Emma Ashton, Faculty of Medicine
Mr Paulo Barbosa Saraiva, Catering Services
Ms Parvati Barker, Finance
Mr Ishwor Baruwal Chhetri, Catering Services
Mr Samuel Bayliss, EEE
Mr Stevan Bedward, Catering Services
Miss Estefania Bellanco Hernandez, Catering Services
Dr Athina Belsi, Public Health
Miss Manuela Bernardi, Life Sciences
Mr Hakim Bessad, Catering Services
Miss Jenny Betreen, Medicine
Mr Rakesh Bhatia, Life Sciences
Miss Mariane Bignotto, Catering Services
Ms Katherine Bilborrow, Public Health
Miss Janet Blair, EYEC
Mr James Bone, Environmental Policy
Miss Antonia Booth, NHLI
Ms Annick Borquez, Public Health
Miss Rachel Bosshard, Medicine
Dr Lorenzo Botto, Chemical Engineering
Mr Peter Botto, Catering Services
Mr James Brash, Clinical Sciences
Mr Adam Britton, Life Sciences
Miss Vaiva Bucaite, Catering Services
Ms Elisangela Cabrera Cordeiro, Catering Services
Dr Cristina Caldelas Molina, ESE
Mr Andrew Caldwell, Estates Division
Mr Ricardo Campos Sousa Pontes, Catering Services
Mr Samuele Cani, Catering Services
Miss Paola Cappai, Catering Services
Dr Robin Carhart-Harris, Medicine
Professor David Carling, Clinical Sciences
Mr Arturo Casini, Life Sciences
Mrs Aurelie Cassayre, EYEC
Mr Jack Caswell, Life Sciences
Mr Michael Cecchini, Chemistry
Dr Kathryn Charles, Surgery and Cancer
Mr Edward Charnley, Physics
Dr Chien-Nien Chen, Medicine
Dr Zhuo Cheng, Chemical Engineering
Dr Richard Cheong-Leen, Medicine
Dr Julien Chilloux, Surgery and Cancer
Mr Allen Coates, ICT
Mr Adam Connolly, Aeronautics
Dr Ioana Cotlarciuc, Medicine
Mr Daniel Crane, Library
Dr Paul Craven, Faculty of Medicine
Mr Alastair Currie, Physics
Mr Michael Cutajar, Physics
Ms Iga Czechowska, Catering Services
Dr Julia Davies, Chemistry
Dr Xavier Didelot, Public Health
Professor Niall Dillon, Clinical Sciences
Mr Alexander Dodds, Mechanical Engineering
Dr Nazanin Dolatshad, NHLI
Miss Elisa Dominguez Huttlinger, Bioengineering
Miss Carolyn Doughty, Medicine
Mr Nicholas Dover, Physics
Miss Gergana Doyninska-Dimitrova, Catering Services
Mr Jakub Duda, Catering Services
Dr Neil Dufton, NHLI
Dr Benjamin Dyer, NHLI
Mrs Abosede Ebohon, Catering Services
Dr Claire Feeney, Medicine
Miss Jun Ferdousi, Accommodation
Miss Sarah Fionda, Educational Quality
Miss Claire Fives, Medicine
Miss Andreea Fluerasu, Imperial College Union
Miss Hui Foong, Medicine
Dr Luca Fossati, Computing
Miss Jayme Fraioli, Catering Services
Ms Marjam Franguljan, Catering Services
Mr Melchor Gallardo Martinez, Catering Services
Mr Pablo Garcia Ulloa, Catering Services
Dr Jesus Gil, Clinical Sciences
Mr Thiago Giotto, Catering Services
Mrs Juliana Gomes Da Silva, Catering Services

Miss Stephanie Gomes, Registry
Ms Joana Goncalves, Computing
Miss Angela Goode, Materials
Ms Wioletta Gora, Catering Services
Mr Jevgeni Gordejev, Catering Services
Miss Kate Gowers, NHLI
Miss Charlotte Grady, Medicine
Miss Katherine Gray, Computing
Miss Laxmi Gurung, Catering Services
Mr Sudip Hadkhale, Catering Services
Mr Richard Halligan, Catering Services
Mr Jiang Han, Civil and Environmental Engineering
Mr Mohammad Haque, Catering Services
Mr Aurelian Harabor, Catering Services
Mr Julien Haran, Life Sciences
Mrs Jannine Hartley, Catering Services
Dr Samia Hasan, Public Health
Dr Adam Hawkes, Environmental Policy
Dr Nicola Hellen, NHLI
Mr Lawrence Henderson, Catering Services
Mr Lucian Herlas, Catering Services
Dr Sherine Hermangild Kottoor, NHLI
Miss Louise Hirst, Physics
Mr Benjamin Hoare, Physics
Mr Stephen Hodge, Chemistry
Dr Susan Hodgson, Public Health
Mr Tobiasz Hofman, Catering Services
Ms Caroline Holden, Educational Quality
Miss Katalin Horvath, Catering Services
Mrs Renata Horvath, Catering Services
Dr Philip Howes, Materials
Mr Adam Huffman, Physics
Mr Alexander Hulme Cross, Catering Services
Dr Gareth Hyde, NHLI
Mrs Maria Infante Ibanez, Imperial College Union
Mr Boriss Issavnin, Catering Services
Miss Teresa Jambur, Catering Services
Miss Annabelle Jayaraman, NHLI
Mr Juan Jerez Fullana, EEE
Miss Marija Jevtovic, Catering Services
Ms Diana Jimenez Nova, Catering Services
Dr Samuel Johnson, Mathematics
Mr Adeniran Johnson, Catering Services

Ms Jacqueline Johnston, Climate KIC
Dr Clifford Jones, Medicine
Mr Nicholas Jones, Catering Services
Ms Anne Joy, Medicine
Mrs Agnieszka Jurglewicz, Catering Services
Mr Karolis Kabokas, Catering Services
Mr Cletus Kalu, Catering Services
Dr Andrew Kalusa, Surgery and Cancer
Mr Hubert Kamuayi, Catering Services
Mr Valdas Kazinauskas, Catering Services
Dr Jeroen Ketema, Computing
Mr Andrew Kett, Catering Services
Dr Ayesha Khan, Medicine
Miss Swarna Khare, Public Health
Miss Marlin Khondoker, Catering Services
Miss Samantha Kiely, NHLI
Dr Paul Kirk, Life Sciences
Mr Maik Kleinschmidt, Catering Services
Dr Tobias Kluge, ESE
Mr Robert Knaap, Catering Services
Dr Eric Kong, Life Sciences
Miss Dana Korandova, Catering Services
Miss Dionysia Kordopati, Catering Services
Mrs Vivian Korley, EYEC
Mrs Anna Kozlowicz, Catering Services
Mr Maris Kraulins, Catering Services
Mrs Kristine Kreicberga, Catering Services
Mr Valdas Kriauciukas, Catering Services
Miss Aiva Kukulite, Catering Services
Miss Solvita Kukulite, Catering Services

*This data is supplied by HR and covers the period 1 April–6 May. These dates cover staff whose surnames begin with the letters A–K. To see the list of staff moving in whose surnames begin with the letters K–Z, as well as the moving on and retirements list for the same period visit: www.imperial.ac.uk/reporter.

The data was correct at the time of going to press.

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

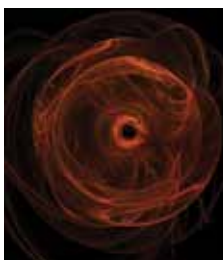


30 MAY ▶ PUBLIC LECTURE

Travel with T cells – a journey into childhood immunity and global health

An estimated eight million deaths occur worldwide in children under the age of five, primarily due to infectious diseases and

their impact on the developing immune system. In this inaugural lecture, Professor Beate Kampmann (Medicine) shares her experiences researching in Africa and illustrates how immunity develops in early childhood, focusing particularly on tuberculosis and the impact of age-related differences in immune responses on the performance of diagnostic tools in childhood TB.



6 JUNE ▶ PUBLIC LECTURE

Giving accelerators a 'light' push

In his inaugural lecture, Professor Zulfikar Najmudin (Physics) introduces the era of plasma accelerators and describes how we can make particle beams of interest to

not only physicists, but also biologists and medics. Particle accelerators have been the 'search engines' for many of the greatest discoveries in physics over the last century. However, with each successive generation of accelerators increasing in size, complexity and cost, it is openly questioned whether any particle accelerator bigger than the Large Hadron Collider at CERN will ever be built.

take note

Library hours extended

For the first time, the Central Library will be open 24 hours a day throughout the summer. With so much happening in London in the coming months, the College wants to ensure students can enjoy the myriad of events and still have time to study.

Details are available at: www.imperial.ac.uk/library/usethelibrary/openinghours/centrallibrary

25 MAY ▶ PUBLIC LECTURE

Open access: is it open season on traditional scientific publishing?

Speakers include Professor Stephen Curry (Life Sciences)

29 MAY ▶ MUSIC

Lunchtime concert

The Chamber Players

29 MAY ▶ PUBLIC LECTURE

We come in peace: aliens in popular science fiction

Professor Francis Keenan, Queen's University Belfast



29 MAY ▶ SEMINAR

From nascent technology to business opportunity: pinpointing the right application

Speakers include Dr Johan Bruneel (Business School)

31 MAY ▶ SEMINAR

Andrew Boorde's Europeans: nation, fashion and the ungrateful priest

Iria Gonzalez-Becerra (Humanities)

9 JUNE ▶ SPORT

Fun in the sun – touch rugby tournament

Open to all students and staff



12 JUNE ▶ PUBLIC LECTURE

Changing lives globally: technological innovations for health

Professor Lord Darzi (Surgery and Cancer)

13 JUNE ▶ SEMINAR

Understanding the role of climate change on malaria transmission

Dr Paul Parham (Grantham Institute)

14 JUNE ▶ SEMINAR

The energy innovation imperative: what we need and what we might get

Professor Jim Skea, Director of UKERC (Centre for Environmental Policy)

14 JUNE ▶ CONFERENCE

Life Sciences postdoc symposium

Presentations from postdocs

14 JUNE ▶ PUBLIC LECTURE

Oral vaccines: making them work in children who need them

Professor Nick Grassly (Public Health)

14 JUNE ▶ SEMINAR

Truths, half-truths and lies: MI5 and the German refugees from National Socialism

Professor Charmian Brinson (Humanities)

18 JUNE ▶ SEMINAR

Envelope assembly and function in bacterial pathogens

Professor Olaf Schneewind, University of Chicago



21 JUNE ▶ SEMINAR

CIPM Annual Scientific Research Meeting

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✉ 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

MEET THE READER



Jennie Idegren, Visiting Project Manager from Karolinska Institutet (Communications and Development)

What are you doing in the picture?

I'm taking care of all the leftover bits and pieces from the Imperial Festival which took place last Friday and Saturday. I'm also looking for a small memento to take back to Sweden!

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

I would write a feature on something close to my heart – public engagement. I'd want to visit the Reach Out Lab to speak to schoolchildren, their teachers and the Imperial staff who work there. I'd love to follow up with some of the kids later on down the track, to hear if their trip to Imperial made an impact on their lives.

Who would be your cover star?

I'd either choose a kid in the Reach Out Lab or a member of the public looking awed by a science demonstration.

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