



Alumni Reunited

Centenary reunion brings Imperial's former students together

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100 years of living science

100

in brief

Changes for Life Sciences

A new Department of Life Sciences has been established in the Faculty of Natural Sciences, bringing together the existing Divisions of Biology, Molecular Biosciences and Cell and Molecular Biology. The new Department is headed up by Professor Ian Owens from the Division of Biology, who took up his post on 1 August 2007. Professor Owens had previously been the joint Head of the Division of Biology alongside Professor Martin Buck. There will be no changes to the terms and conditions of existing staff within the three constituent Divisions.

Green light for real gem of a project

The Big Lottery Fund announced in August that it is giving £11.7 million to Imperial for a new series of community environment projects called the Open Air Laboratories Network (OPAL). Over the next five years Imperial and 16 partner organisations will run a variety of environmental programmes across the country, supporting and encouraging local communities to play a major role in recording biodiversity, climate change and assessing the soil, water and air quality in their surroundings. The successful funding bid was led by OPAL Director Dr Linda Davies from the Centre for Environmental Policy.



Succeeding in Europe is a great IDEA

The first IDEA League summer school focusing on transferable skills took place 8–11 July. Championed by Pro Rector Professor Mary Ritter and organised by staff from the Graduate Schools and the International Office, the course saw 40 late-stage PhD students come together with colleagues from the five IDEA institutions. Themed 'Succeeding in Europe', the content was designed to equip participants with the skills and insight needed to make successful transitions to the next phase of their research careers. Course leader Elaine Walsh, Senior Lecturer in the Graduate Schools, said: "It was encouraging that students found all sessions useful, and a rocket building exercise helped to accelerate the formation of strong cross-cultural teams."

National Student Survey

Eighty-six per cent of final year undergraduates studying at Imperial are satisfied with their experience of higher education, it was revealed in this year's National Student Survey. Imperial beat the national average of 81 per cent of students across the UK who said they were satisfied with their overall experience of university and college. Imperial's overall Times Higher satisfaction score was 3.81. This is an institutional average of the scores received for 21 questions. Students rated teaching, assessment, learning support, organisation and resources at their universities, as well as their personal development, using a five point scale.

AHSC news

Secretary of State approves AHSC

On 29 August the proposal to form the UK's first AHSC was approved by the Secretary of State for Health following an extensive public consultation. The Hammersmith Hospitals NHS Trust and St Mary's Hospital NHS Trust will merge and integrate with Imperial on 1 October. Over three-quarters of respondents to the consultation, which ran for three months earlier in the year, thought the merger was a good idea, with many believing that it would lead to better health services, better use of resources and the development of new and innovative solutions to

modern medical challenges.

Trust name agreed

The AHSC will be named **Imperial College Healthcare NHS Trust** from 1 October. A new staff magazine, *360 Degrees*, will be launched for the organisation and distribution bins will be located at each medical campus. There will also be a new joint Trust telephone number, +44 (0)20 3311 3311, which will become operational later this month.

Transitional executive team appointed

The executive team that will face the challenges of establishing the AHSC has been appointed

on a transitional basis. Permanent appointments will be made over the next six months, with the aim of having a permanent Board in place by 1 April 2008. Lord Tugendhat has been appointed the first Chairman of Imperial College Healthcare NHS Trust by the independent Appointments Commission. His extensive career has encompassed the successful chairmanship of FTSE100 companies and public service as a Member of Parliament.

► For a full list of appointments visit: www2.hhnt.org.uk/ahsc/News/index.htm

Introducing new Deans

This month sees the appointment of three new Deans, Professors elected by senior academic members of the area which they represent. The College has seven in total – two assigned to each Faculty and one Senior Dean – who act on behalf of their colleagues as spokespeople for academic opinion.

Professor John Gibbon (Mathematics) has been elected Dean for the Faculty of Natural Sciences, and Professor Alan Atkinson (Materials) will be Dean for the Faculty of Engineering and the Tanaka Business School. Professor Robert Sinden (Cell and Molecular Biology), who was previously Dean for the Faculty of Natural Sciences, succeeds Professor Richard Kitney as Senior Dean.

—ALEXANDRA PLATT, COMMUNICATIONS



Clockwise from top: Professor John Gibbon, Professor Alan Atkinson, Professor Robert Sinden

Engineers join Royal Academy fellowship

Two Imperial engineers were among 30 distinguished scientists newly elected to the Fellowship of the Royal Academy of Engineering in July.

Professors Neil Alford (Materials) and Richard Vinter (Electrical and Electronic Engineering) bring the total number of Fellows at Imperial to 71.

Professor Alford is distinguished for his outstanding development of new inorganic materials including high-strength ceramics,

superconducting materials and microwave dielectric ceramics. He said: "I am absolutely delighted to be elected a Fellow of the Royal Academy of Engineering, it is a

great honour. The work that I have been doing depends on teamwork and I have a really excellent research group drawn from a range of disciplines. It is largely because of this wealth of talent that we have been able to make progress and I thank them for their help."

Professor Vinter was recognised for research contributions to control engineering and for leadership of university research teams in this and related fields. He explained that the Royal Academy has a key role in providing technical advice for government policy making, inspiring students, promoting technology transfer from universities to British industry and fostering high quality engineering research: "It is a great privilege to be part of this distinguished fellowship."

—COLIN SMITH, COMMUNICATIONS



From top: Professors Neil Alford and Richard Vinter

Reunion attracts record number of alumni

Nearly 900 alumni and guests from all over the world attended a weekend of events at Imperial on 14–16 September in celebration of the College's Centenary year.

A quiz kick-started the reunion with a special Centenary round, where contestants answered questions about Imperial's history and the number 100. Thirteen teams took part, with an alumni team, Javed's Jokers, taking the winning prize.

Throughout the weekend, departments from across the College hosted receptions, opening their doors for alumni to see how things had changed and developed since their student days. Julian Race (Physics, 1989) described his experience as "enlightening and thought-provoking".



Some departments put on talks and demonstrations, including a nostalgic look at mechanical engineering at Imperial delivered by 94-year-old Emeritus Professor Sir Hugh Ford.

Packed programme

Other highlights of the weekend included the keynote lecture by Chief Scientific Adviser to the Government, Professor Sir David King, who spoke about climate change. Imperial Professor Sir Ara Darzi's lecture on technology in surgery and a tour of the Flight Gallery at the Science Museum were also part of the programme.

Alumni enjoyed the opportunity to climb the 324 steps of the Queen's Tower. Brian Roper (MSc Earth Science and Engineering, 1979) said: "The view from the tower was still as exhilarating as it was 28 years ago."

The reunion dinner took place on Saturday night in the marquee on the

Queen's Lawn, hosted by the Rector. Alumni were treated to a spectacular fireworks display and musical entertainment from the Imperial College Big Band. The Rector said: "I was delighted to see so many alumni back at the Campus in this year that belongs to everyone who has ever studied or worked at Imperial College during the last century."



The closing event for the weekend was a barbecue in Beit Quad, giving guests a final chance to mingle and say goodbye to old friends for another year.

The view from the tower was still as exhilarating as it was 28 years ago

Fiona Kirk, Director of Development at the College, said: "The weekend was a great success and it was wonderful to see so many people returning to the College and reminiscing about their time here." She added: "It was the biggest alumni event ever organised by the Office of Alumni and Development and we are enormously grateful to our speakers and other faculty representatives, as well as to the conferences and catering team, for all of the invaluable support they gave in delivering an excellent weekend of activities."

—NAOMI WESTON, COMMUNICATIONS



Meet Imperial's new profs

Imperial has announced the promotion of 40 new professors as part of the annual academic promotions exercise. The complete list of 127 promotions is effective from 1 October.

In his former role as Senior Dean, Professor Richard Kitney (Bioengineering) was responsible for last year's promotions exercise alongside the Deputy Rector. He explained the process, which starts shortly after the beginning of session with a positive review of all academic staff by a committee in every department or division. "Candidates selected by their department or division are encouraged to go forward into the Promotions Round, although anyone can make a personal application. During the spring all the applications are considered, either at the faculty

level in the case of Senior Lectureships, or by the College promotions committees for Readerships and Chairs. I believe that the promotions system is both thorough and fair. Academic staff need to be aware that they can seek advice about the procedures at any stage and there are no quotas."

► All new professors are entitled to give an inaugural lecture. For more information contact Amy Thompson at amy.thompson@imperial.ac.uk, or call +44 (0)20 7594 8142.

► For full details of the new professorships and a complete list of this year's academic promotions, including those promoted to reader, senior lecturer, principal research fellow and senior research fellow, please visit: www.imperial.ac.uk/aboutimperial/news

Faculty of Engineering



Professor Mark Sephton

Department of Earth Science and Engineering

Mark Sephton has been appointed Professor of Organic Geochemistry and Meteoritics. His research focuses on organic molecules and the record they leave of life and death in the solar system.

Part of his work looks at non-biological molecules found in the solar system's asteroid belt. Asteroids collide in the belt and some are knocked onto a collision course with Earth. Professor Sephton has the task of analysing the molecules which he mines from asteroid fragments. "Many of

these meteorite molecules show basic similarities to those utilised by life," he explained. "They represent pre-life organic chemistry that has been frozen in time, revealing the first chemical steps that led to the origin of life."

Another strand of his research explores Earth's past. Biological molecules, entombed in rocks, act as molecular fossils. They reveal how organisms and their host environments changed through geological time. Professor Sephton said: "This type of change is most dramatic at extinction boundaries where dramatic environmental disturbances resulted in mass extinction events."

Professor Sephton says his research helps us to appreciate our place in the cosmos. It reveals how life originated and how ubiquitous it may be in the universe.

Commenting about his appointment, Professor Sephton said: "It is a great honour to be appointed professor at Imperial College London, a crucible of world-class scientific and technological innovation and discovery."

Tanaka Business School



Professor Tommaso Valletti

Tommaso Valletti has been promoted to Professor of Economics in the Tanaka Business School. He is part of the Organisation and Management Group in the School and his main research interest lies in the field of industrial economics, regulation, and telecommunications economics.

He explained how his research involves analysing how markets work and looking at competition between different companies: "I have looked at the telecommunications industry, the media and

the pharmaceutical industry. I analyse trends in the markets and propose game theoretical models illustrating this."

Professor Valletti, who joined Imperial from the London School of Economics in 2001, added: "I am delighted at becoming a professor here, I have had numerous papers published and it is great to have my work recognised."

Professor Valletti is a member of the panel of academic advisors to Ofcom, the UK communications regulator, and the UK Competition Commission, an independent public body which conducts in-depth inquiries into mergers, markets and the regulation of the major regulated industries. He is also a visiting Professor of Economics at the University of Rome.

Faculty of Natural Sciences



Professor Tim Coulson

Division of Biology

Tim Coulson has been appointed Professor of Population Biology in the Division of Biology. His research focuses on understanding how populations of animals change in size over time and on identifying the factors that cause these changes. Important factors include fluctuations in food and climate, and the evolutionary responses of animals as they adapt to environmental changes. This is important for the development of conservation management plans, and for predicting future change as the world warms. The projects

he and his PhD students are involved with vary from monitoring ecological and evolutionary change in populations of wild Soay sheep in the Outer Hebrides to finding ways to minimise conflict between humans and crocodiles in Namibia.

"I enjoy working with charismatic big animals that capture the public's attention," he said. "There is so much that needs to be done to monitor and understand some of the planet's most fascinating species, especially in relation to how man-made change is affecting their populations. There's evidence to suggest that some species are now evolving and adapting to a new climate much faster than scientists thought possible, which is an area that fascinates me."

Commenting on his appointment, Professor Coulson added: "I'm delighted—the news was a nice surprise! It's great to be part of a section that's doing such exciting work."

Faculty of Medicine



Professor Shiranee Sriskandan

Department of Infectious Diseases

Shiranee Sriskandan becomes Professor of Infectious Diseases in the Department of Infectious Diseases. Her group analyses how a bacterium known as Group A Streptococcus, which is found in the throat and on the skin, causes disease. This bacterium can cause a range of infections, from relatively mild sore throats and skin infections to life-threatening diseases such as the 'flesh-eating disease' necrotising fasciitis and streptococcal toxic shock syndrome.

Professor Sriskandan comes from a clinical background and

this has had a great influence on how she approaches her work. "Much of our best work has stemmed from questions arising out of the clinical setting," she explained. "Coming at pathogenesis from a different angle gives us a unique opportunity to discover new things about this bacterium, such as a novel enzyme called SpyCEP, which destroys a key element of the body's immune system."

Professor Sriskandan said of her promotion: "It's great to have that recognition. It reflects the body of work done by the group and our key collaborators, both here at Imperial and abroad. I hope our successes will spur more clinical academics to pursue microbiological questions in their research, as they can bring fresh insight to the field. Research into Group A Strep has been ongoing for almost a century now but, 12 genome sequences on, there's still a lot we don't know; we have a lot to keep us going."

Full list of new professors 2007

Faculty of Engineering

Professor Peter Weinberg, Bioengineering
Professor Omar Matar, Chemical Engineering and Chemical Technology
Professor Kang Li, Chemical Engineering and Chemical Technology
Professor Matthew Coop, Civil and Environmental Engineering
Professor Washington Ochieng, Civil and Environmental Engineering
Professor Sophia Drossopoulou, Computing
Professor Paul Kelly, Computing
Professor Mark Sephton, Earth Science and Engineering
Professor David McComb, Materials
Professor Michael Lowe, Mechanical Engineering

Faculty of Medicine

Professor Luis Aragon, Clinical Sciences
Professor Carol Shoulders, Clinical Sciences
Professor Vasso Episkopou, Clinical Sciences
Professor Karim Meeran, Investigative Science
Professor Shiranee Sriskandan, Investigative Science
Professor Peter Julian Dyson, Medicine
Professor Simon Taylor-Robinson, Medicine
Professor Timothy Vyse, Medicine
Professor Mike Laffan, Medicine
Professor Nancy Curtin, NHLI

Professor Michael Polkey, NHLI
Professor Mark Enright, EPHPC
Professor Huw Thomas, SORA
Professor Paul Abel, SORA
Professor Mark Bower, SORA
Professor Jennifer Higham, SORA
Professor Masao Takata, SORA
Professor Joseph Thomas, SORA
Professor Catherine Williamson, SORA

Faculty of Natural Sciences

Professor Raymond Murray, Physics
Professor Andrew Jaffe, Physics
Professor Jordan Nash, Physics
Professor Stephen Warren, Physics
Professor Timothy Coulson, Biology*
Professor Eleanor Milner-Gulland, Biology*
Professor Donald Quicke, Biology*
Professor Stephen Curry, Cell and Molecular Biology*
Professor Neil Fairweather, Cell and Molecular Biology*
Professor Michael Stumpf, Molecular Biosciences*

Tanaka Business School

Professor Tommaso Valletti

* from 1 August, Department of Life Sciences

Chemical clues could bring criminals to justice

New fingerprinting technique developed at Imperial

A new fingerprinting technique could potentially detect the diet and sex of a suspected criminal, according to research published in the August edition of the journal *Analytical Chemistry*.

The team, led by Imperial's Professor Sergei Kazarian, has devised a technique which collects fingerprints along with their chemical residue and keeps them intact for future reference. Conventional fingerprinting techniques often distort or destroy vital chemical information with no easy way of lifting residues for chemical imaging, until now.

Chemical clues could highlight specific traits in a person—for example, a strong trace of urea, a chemical found in urine, could indicate a male, and specific amino acids could potentially indicate whether the suspect was a vegetarian or meat-eater.

Speculating about the possible future benefits of this process, Professor Kazarian said: "In the courtroom of the near future, chemical images could feature as key evidence. I hope our work assists law enforcement authorities to bring dangerous criminals to justice."

—COLIN SMITH, COMMUNICATIONS

Pressure's off with trial success

An international trial looking at the benefits of giving blood pressure lowering medication to elderly patients was stopped in July, after a significant reduction in overall mortality in those receiving treatment was observed.

The Hypertension in the Very Elderly Trial (HYVET), involving 3,845 patients,

was coordinated by Imperial scientists and is the largest ever to look at the effects of lowering blood pressure solely in those aged 80 and over.

A number of earlier trials had demonstrated that reducing blood pressure in the under-80s reduces stroke and cardiovascular events. However, previous smaller and inconclusive studies also suggested that, while lowering blood pressure in those aged 80 or over reduced the number of strokes, it

did not reduce—and even increased—total mortality.

Emeritus Professor Chris Bulpitt, HYVET Principal Investigator from Imperial's Care of the Elderly Department, said: "It was not clear prior to our study whether the over-80s would benefit from blood pressure lowering medication in the same way as younger people. Our results are great news for people in this age group because they suggest that where they have high blood pressure, such treatment can cut their chances of dying as well as stroke."

—LAURA GALLAGHER, COMMUNICATIONS



Parasitic worm pulls sweet trick

An Imperial study has given scientists a greater understanding of how sugars secreted by *Schistosoma mansoni* worms are vital to their ability to hoodwink a host's immune system, spreading the deadly disease schistosomiasis. The research was published in the September edition of *Molecular and Cellular Proteomics* journal.

Understanding exactly how the worm evades the immune system could lead to the development of a vaccine or new treatments for the condition, a debilitating disease that affects up to 200 million people in Asia, Africa and South America.

In the way that a matador uses his cloak to distract the bull...so the secretions distract the immune system

Dr Stuart Haslam (Molecular Biosciences), lead author of the study, explains: "Sugars secreted into the host's skin when the worm penetrates have a key role to play in whether or not the host's immune system recognises the worm as a threat. Much in the way that a matador uses his cloak to distract the bull and prevent personal injury, so the secretions distract the immune system and prevent the real target, the worm, being attacked."

—DANIELLE REEVES, COMMUNICATIONS



The *Schistosoma mansoni* worms enter the body through the skin when people come into contact with water.

Megaflood made Britain an island

A catastrophic megaflood separated Britain from France hundreds of thousands of years ago, changing the course of British history, according to research published in the journal *Nature* on 18 July.

The study, led by Dr Sanjeev Gupta and Dr Jenny Collier (Earth Science and Engineering) has revealed spectacular images

of a huge valley tens of kilometres wide and up to 50 metres deep carved into chalk bedrock on the floor of the English Channel.

Dr Gupta said: "This prehistoric event rewrites the history of how the UK became an island and may explain why early human occupation of Britain came to an abrupt halt for almost 120 thousand years."

Using high-resolution sonar waves the team captured images of a perfectly preserved submerged world in the channel basin. The maps highlight deep scour marks and landforms which were created by torrents of water rushing over the exposed channel basin.

—COLIN SMITH, COMMUNICATIONS

A fond farewell to Rees and Tony



Retiring this month are Professor Rees Rawlings, Pro Rector for Educational Quality, and Tony Mitcheson, College Secretary and Clerk to the Court and the Council. *Reporter's* Alexandra Platt went to meet them to hear their Imperial stories.



Professor Rees Rawlings began his career at Imperial in 1961, as an undergraduate student in the Department of Metallurgy (now Materials) and, in his own words, "never left".

He said: "I always wanted to be an academic as I like research and teaching. I've really valued working with so many bright young people and having the chance to enhance education at the College." Talking of his

role as Pro Rector since 1999, he added: "My previous positions and the fact I'd been a student here myself gave me a real insight into how university life affects young people and the problems they might encounter." Personal highlights in this position included supporting the process involved in the College gaining degree awarding powers in 2003, and developing the Centre for Educational Development.

Tony Mitcheson joined Imperial in May 1997, following a successful career in the Army. He retires this month after over 10 years at the College.

He said "I've thoroughly enjoyed my time here. It's been a very exciting ten years in the organisation's history and to be departing in the Centenary year as we gain our independence is

to leave on a great high. I'm sorry to be going, but I leave the team in the safe and capable hands of Rodney Eastwood."

Tony's plans for his retirement won't see him slowing down just yet. He explains: "One of the first things I'll be doing is donning a hard hat and boots and reaching for my brick-laying trowel to renovate a derelict barn."

► For the full interviews with both Professor Rawlings and Tony Mitcheson, visit: www.imperial.ac.uk/aboutimperial/news

► The next issue of *Reporter* will feature interviews with retirees Professor Dame Julia Higgins (Faculty of Engineering), Susan Hartman (Faculty of Medicine) and Clare Jenkins (Library Services).

Staff development news

Staff Development Unit launches new website

The Staff Development Unit (SDU) is breaking with its September tradition of sending out its programme as a booklet to all College staff. In recognition of the ever-increasing use of their website, they have decided that this will act as their key publicity and information tool. On the site you can find information on programmes and activities, new initiatives, details of local consultancy and team development initiatives, coaching and support.

► For more information visit: www.imperial.ac.uk/staffdevelopment



Development opportunity for BME managers

The SDU is working in collaboration with the Equalities Unit to host a briefing session and lunch to present a new training programme, designed for future senior managers, on 27 September. This will specifically target the College's black and minority ethnic (BME) managers, including researchers, in an attempt to address current under-representation at senior management levels across the College. Heads of Department and all senior managers are asked to identify and encourage relevant staff from their teams to attend the briefing. For more information contact Christine Yates on ext. 5558 or at c.yates@imperial.ac.uk.

► For moving in moving on and celebrating long service, visit the online supplement to this edition at: www.imperial.ac.uk/reporter

Frame of Mind

Photo competition winners announced

The winners of the Frame of Mind competition have been announced, and the quality of entries was so high that five rather than three prizes have been awarded.

Staff and students were invited to put Imperial in the frame, competing for a range of prizes worth £25 to £100. Without having to be a professional photographer, entrants were able to submit up to three images illustrating what life at Imperial means to them.

Along with their prizes, winners may see their image used on the College website or within the pages of prospectuses in the future.

First-prize winner, Peter Huthwaite, a student in the Department of Mechanical Engineering, won with his picture taken during the glass fibre production process of a solar powered boat, Solar Spirit, which formed his third year 'design, make and test' project.



"I am fascinated by colour, which is what really inspired me to take this shot, particularly the rich, bright, orangey colours of the circular shape contrasting with the blues from the background of the image", he explained. "The photo also explores shape and form, with interesting perspective effects and diverging lines, and the very strong circular form tying it all together. It was a bit of a surprise to win the prize, but I was pleased with how the photo had come out."

—ALEXANDRA PLATT,
COMMUNICATIONS

► For more information visit: www.solarspirit.co.uk and www.flickr.com/groups/frameofmind



And the winners are: Shown clockwise from top: **FIRST PLACE (2 winners):** Peter Huthwaite (student, Mechanical Engineering); Nick Adams (student, Electrical and Electronic Engineering) **SECOND PLACE:** Eloisa Angeles (student, Materials) **THIRD PLACE (2 winners):** Tom Johnson (staff, Natural Sciences); Kim Winter (staff, Support Services)

volunteering

The power of play

Urgent project: Play Worker
Project ID: 1966
Organisation: Prisoner Advice and Care Trust (PACT)
Time: At least one half day per week, for at least six months
Location: W12 (nearest tube East Acton)

Volunteers are needed to offer a positive experience for children visiting prison with their parents or carers, by creating an opportunity for them to play with others in a similar situation. Providing a fun atmosphere and offering enjoyable activities aims to reduce possible feelings of loneliness and isolation, and to release stress and frustration. Activities offered will include art, games and imaginative play. Volunteers must be willing to undergo a CRB and prison security check before starting this position. PACT is an independent charity which supports people affected by imprisonment.



For more information

To take part in a scheme or to hear more about volunteering in general, contact Minna Ruohonen • 020 7594 8133 • m.ruohonen@imperial.ac.uk

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

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

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Editor
Alexandra Platt
Tel +44 (0)20 7594 6715
email a.platt@imperial.ac.uk

Photography
Cheryl Apsee • Emma Bowkett
• Jan Chlebek • Viviane Li