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*ISSUE 31 WINTER 2007-08* THE UK'S NEW KIND OF HEALTHCARE  
CENTRE\_LOOKING BACK AT A YEAR OF CELEBRATIONS\_AN EVENING OF ROCK  
AND DUST\_PLUS ALL THE NEWS FROM THE COLLEGE AND ALUMNI GROUPS

# IMPERIALmatters

Alumni magazine of Imperial College London including the former Charing Cross and Westminster Medical School,  
Royal Postgraduate Medical School, St Mary's Hospital Medical School and Wye College.

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# IMPERIALmatters

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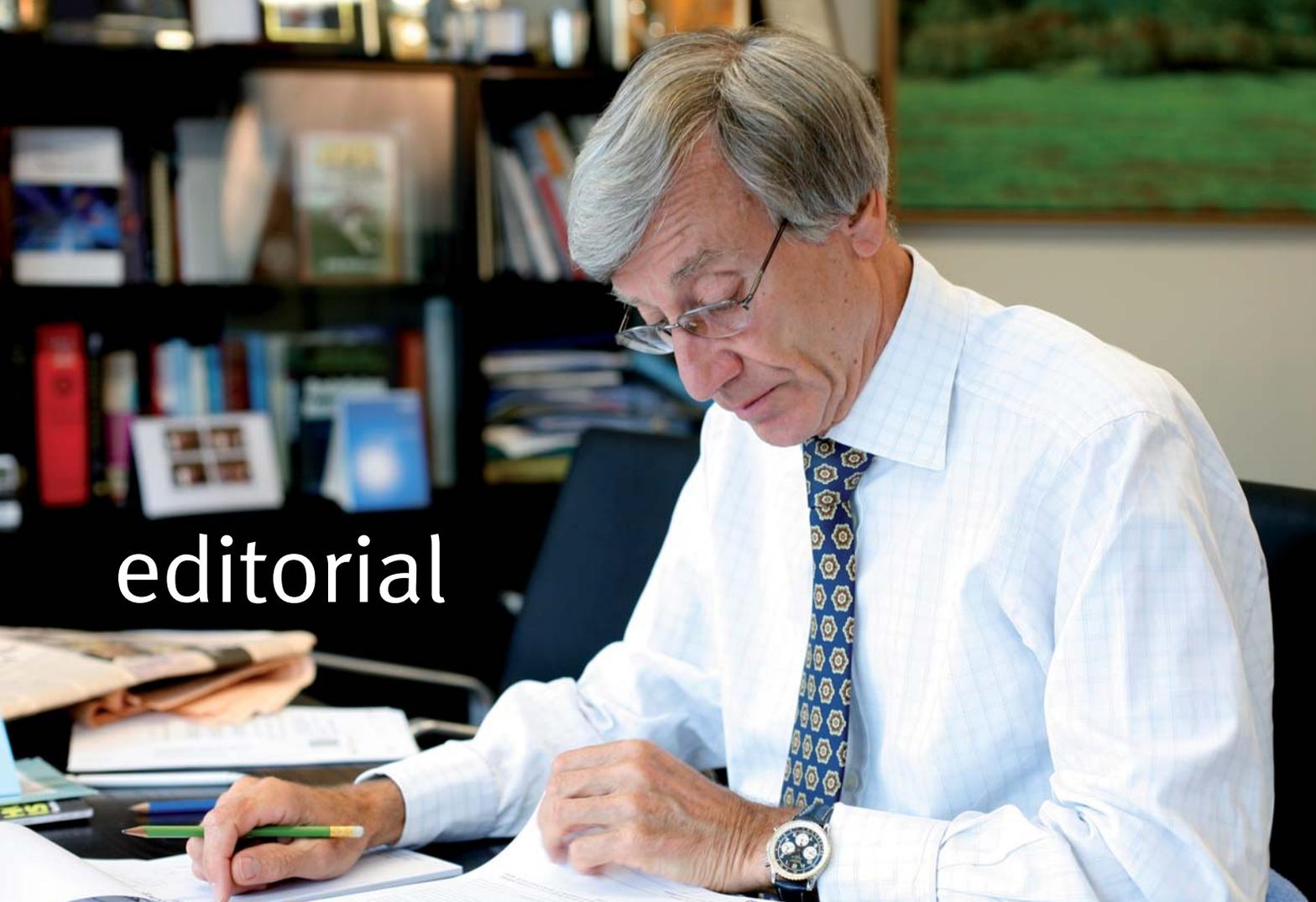
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# editorial

DEAR ALUMNUS,

It gives me great pleasure to say hello through the pages of this winter 2007–08 edition of *Imperial Matters*, and I thank you for your continued interest in Imperial College.

You may be aware that Imperial has just completed a momentous year, encompassing not just our Centenary but also independence as a university in our own right, a royal visit by Her Majesty The Queen and Gordon Brown's first outing to a UK university as Prime Minister. The year also saw Imperial named the fifth best university in the world in the *Times Higher Education Supplement* World University Rankings, a great tribute to the dedication of the College's staff.

Perhaps the achievement that will have the most far-reaching impact on people's lives here in the UK, however, is our creation of an Academic Health Science Centre. On 1 October 2007, with the newly-merged St Mary's and Hammersmith Hospitals Trusts, the College formed Imperial College Healthcare NHS Trust. This integration of teaching and research with the delivery of patient care, a first for the UK, will create a healthcare centre of international standing, in which breakthroughs move speedily from bench to bedside. You can read more about this exciting prospect on page 18.

The past year has been enriched by many alumni events, including the Centenary Reunion in September, which saw around 900 people return to the College to see what has changed and what has stayed the same. I imagine that some of you reading this attended the event, and I hope that it brought back some happy memories – we are always thrilled to have you back, and we look forward to many more opportunities to get together in the future. Turn to page 12 to read about many of the celebratory events that took place during 2007, and read more about the reunion on page 15.

This year also saw the return of one particularly well-known Imperial student, who finally completed the PhD he started over 30 years ago and which he abandoned in favour of a blossoming

musical career with Queen. You can read about Dr Brian May on page 16.

Of course, Imperial's alumni family is a global one, and in celebration of that we held the College's first graduation ceremony outside the UK during my time as Rector. Our Asia Convocation, held in the magnificent surroundings of Singapore's University Cultural Centre, offered a wonderful opportunity to visit the region from which so many of our students hail, and was part of a wider trip to Asia that encompassed several events and meetings with members of alumni associations in Singapore, Malaysia, Thailand and India. My thanks go to them all for their great hospitality.

My message at the Asia Convocation ceremony, as it is at all of our graduation ceremonies, was that graduation day does not represent the end of your relationship with Imperial. We see it as an ongoing connection and hope that you do too.

So, my thanks go to all who attend alumni events through the year, who read this magazine and contact us with their views, and who share their memories of Imperial and let us know about their post-Imperial accomplishments.

Our Centenary Campaign to raise £207 million through philanthropic support is well underway, and I would like to express my thanks to all of our generous supporters, many of whom have given through the Annual Fund. You will find issue nine of *building the connection* enclosed with this mailing, which contains news of recent gifts to the campaign.

Imperial is embarking on its second century with a great sense of optimism and we are delighted that you wish to join us on the next stage of our exciting journey.



# letters

## Operation Debrett

On Coronation Day, 2 June 1953, I took part in 'Operation Debrett' to provide refreshments for the distinguished guests in Westminster Abbey. I wrote an account of my experiences that night as I was much too excited to sleep.

Our duties were to feed guests from the Parliament Square stands between 7am and 12pm; and then to feed Westminster Abbey guests from 2pm onwards. There was an important difference between these two services; before 2pm everything was sold, and afterwards the cost was charged to Her Majesty.

There were 20 Imperial College students; some coats were produced for the kitchen porters, they were mostly blue but there were also three white ones. I was fortunate and was selected to wear a white coat, and given the task of taking round trays of cakes and sandwiches.

Just before the Queen was due to arrive in Parliament Square, we cleared to watch her. I arrived three minutes early inside the gates of the Houses of Parliament and was told to climb down. But I stood on tip-toe and saw the Queen's face and hand through her coach window.

As the service commenced, we had our lunch of ham and beef, lettuce, tomatoes, sausage rolls and a cake. Afterwards there was a great rush to get everything ready for the Abbey guests.

When the first guests came from the Abbey, the kitchen porters were hurriedly ordered into the washing up room at the end of the counter and gazed out amazed on princes, bishops and knights. I recognised the Dean of Westminster, the Bishop of Durham, the Moderator of the Church of Scotland, the Pope's representative and various Knights of the Garter.

**PROFESSOR DENNIS MABEY** (Aeronautics 1952, MSc 1953, Visiting Professor 1991–1998)

*Dennis Mabey's full account of Operation Debrett can be found online at [www.imperial.ac.uk/alumni/mabey](http://www.imperial.ac.uk/alumni/mabey).*

## D-Day exams

Having attended the Centenary reunion celebrations, which I thoroughly enjoyed, I thought that you might be interested in my recollections of my final year at Imperial in 1944.

My most vivid memory is of the final exams, which started on 6 June 1944 in the old drawing office. Not content with it being D-Day and all the excitement of that, it was also the start of the doodle bugs. During this first exam, the air raid sirens went and when one of them approached the College the internal alarm from the spotter on the roof sounded and we had to take shelter under the heavy drawing desks. This happened no less than three times and, by the second and third we realised that the invigilator's desk was closed in the front facing us and therefore he could not see what we were up to. What a chance to whisper about the questions! This type of interruption did not occur during any of the other exams and I suppose that the doodle bugs were being aimed at other targets.

**JOHN WAITERS** (Civil and Environmental Engineering 1944)



## Fond memories

My student apprenticeship with D. Napier and Son from 1946 to 1949 included study of gas turbine technology and heat transfer at Imperial College, and I still have the textbook on heat transfer that was subsequently published by M. Fishenden and O.A. Saunders. It is pleasant to recall the lectures they gave. She was always called "Ma" Fishenden by the students, perhaps because she was slightly older than Saunders. Her information on the theoretical side of heat transfer was always accompanied by his experimental data that confirmed the theory.

**ALAN MACDONALD** (Mechanical Engineering 1948)

## Redressing the balance

I was interested to read about Imperial's new status as a fully fledged university and the Rector's comments about how it was fitting that South Kensington was the locus for a university due to the conglomeration of academic bodies. It was an idea identified over 30 years ago when Trevor Phillips and I founded a newsletter entitled the *University of South Kensington Entertainments Sheet*, or USKENTS for short. I think it ran for quite a few years after we left in 1971.

The newsletter came about because engineering-based Imperial was always short of female 'talent' at the various entertainment functions and it was thought that by advertising the various events in other local colleges, particularly the teacher training ones that had a high female/male ratio, the balance could be redressed.

It must have worked to some extent as two of my colleagues married teachers! We didn't have the medical schools at that time, but I remember printing several hundred copies for distribution to the French Lycee, Maria Assumpta College, the College of Estate Management, Chelsea College and the Royal College of Art. The prime focus was obviously on Imperial College events, but we tried to include other College's events to try and get Imperial students to theirs, as well as their students to ours.

**TIM SMITH** (Aeronautics 1971)

Please send your letters to: *Imperial Matters*, Office of Alumni and Development, Imperial College London, South Kensington Campus, London SW7 2AZ or by email to [matters@imperial.ac.uk](mailto:matters@imperial.ac.uk).

We reserve the right to edit for length. Letters will also appear on the Imperial College website as part of the online edition of *Imperial Matters*. Please note that any views expressed here are those of the contributors and do not necessarily reflect those of Imperial College London.

## Commemoration Day celebrates student success



Imperial's two Commemoration Day ceremonies, held in October, celebrated the graduation of over 2,000 undergraduates. These were the first graduation ceremonies the College celebrated as an independent institution, following its withdrawal from the University of London in July 2007.

In addition, honorary Imperial doctorates were awarded to Lord Browne, former Group Chief Executive

Officer of BP; Dr Lisbet Rausing, Senior Research Fellow in the College's Centre for the History of Science, Technology and Medicine; and Dr Craig Venter, leading scientist in the field of genomic research.

Addressing the new honorary graduands, Sir Richard Sykes, Rector of Imperial College, said: "Lord Browne is a real cheerleader for the good that science can do, having made huge efforts to position BP as a leader in developing greener and more sustainable energy during his time as Chief Executive."

He added: "Craig Venter and Lisbet Rausing have both made huge efforts to advance science; Dr Venter as a scientist of great imagination, and Dr Rausing as both a researcher here at Imperial and as a generous philanthropist."

## Reaching out

From robotics to biology and from chemistry to art, Imperial's Outreach Office inspired over 3,500 young people in 2007. Aimed at raising aspirations amongst school pupils and igniting their interest in the



world of science, the Outreach Office has organised over 70 different science events including workshops on alternative energy, the science of crime scene investigations and the relationship between chemistry and art.

The Creative Futures

event held in October 2007 was organised by the College's race equality group, Imperial As One, and focused on interactive workshops introducing the pupils to hands-on science. The neuroscience workshop asked the pupils, does colour influence flavour identification? Using four different flavoured soda drinks and one unflavoured, clear drink, the pupils had to record how the colour influenced their sense of taste and how mixing the substances made it harder to identify the flavours.

Melanie Thody, Head of Outreach at the College, emphasises the importance of these activities. She said: "Our programme here at Imperial is designed to give pupils a taste of life at university and provide them with the opportunity of working with academics and university students."

## Southside opens, Eastside demolished

Over 400 first year students moved into the new Southside halls of residence that opened their doors at the end of September 2007. Southside accommodates students in single and twin *en suite* study bedrooms and provides a medical and dental



centre, and a student social space, for the residents.

The new halls, pictured, have been built to replace the old Southside building, which was originally constructed in 1963 and knocked down in the summer of 2005. The new building has taken over two years to build and still comprises the three original halls: Tizard, Selkirk and Falmouth Keogh.

Following on from the success of Southside, work to demolish a second hall of residence, Linstead Hall and its extension (known as Eastside), is now underway. This is a continuation of the Prince's Gardens restoration project, which aims to provide accommodation for as many undergraduates as possible within a 15-minute walk of South Kensington Campus' academic facilities, as well as improved amenities for students, local residents and visitors.

The new accommodation will be split into three separate halls rather than one, and will house 430 students. The work is due to be completed by September 2009.

**Fifth best university in the world**\_Imperial has been named the fifth best university in the world, a leap of four places from last year, in *The Times Higher Education Supplement's* 2007 World University Rankings, which comprise peer assessment, graduate recruiter feedback, research citations and student-staff ratios. Congratulating Imperial's staff, Sir Richard Sykes said: "Today's recognition reflects the commitment and brilliance that you demonstrate every day – it is that which makes the College a world-leading institution."

**Malawi bridge success**\_Five students from Imperial College have built a bridge in Malawi, helping local people cross the river to collect firewood and patrol against poachers. The 37-metre suspended footbridge was constructed across the North Rukuru River at Uledi on the north-western corner of Nyika National Park. During the wet season the river previously split Uledi in two, cutting off half of the village. Thirty people from the local community also got involved with the building project.

**RISE**\_Realise equality, celebrate diversity was the theme for student RISE week, the Union's racial awareness campaign, held in November 2007, which aimed to encourage integration and tolerance of others on all the College campuses. Students had the opportunity to try out a different international dish and see international films screened at the Union. The week coincides with Student RISE month organised by the Mayor of London to promote the diversity of London's students and their opposition to racism.

**Set for success**\_Two Imperial undergraduates won awards at the Science, Engineering and Technology Student of the Year Awards in September 2007. Richard Hayden, from Imperial's joint mathematics and computing degree course, won the Microsoft Research Award for the Best Computational Science Student, which is judged by the British Computer Society. Stephen Motley, from the Department of Electrical and Electronic Engineering, won the ezv Technologies Award for the Best Electronic Engineering Student.

>> NEWS IN BRIEF >>



## Chemical imaging: potential new crime busting tool



A team, led by Professor Sergei Kazarian from the Department of Chemical Engineering and Chemical Technology, has devised a technique which collects fingerprints along with their chemical residue and keeps them intact for future reference. This new technique has the potential to detect the diet, ethnicity and sex of a suspected criminal.

They found that gel tapes, spectroscopic imaging and the use of an array detector, originally developed by the United States military for smart missile technology, give a detailed chemical composition, or chemical 'photograph', of a fingerprint.

The process could potentially identify traces of items people have come in contact with, such as gunpowder, narcotics, and biological or chemical weapons.

Chemical clues could also highlight specific traits in a person. A strong trace of urea, a chemical found in urine, could indicate a male. Weak traces of urea in a chemical sample could indicate a female. Specific amino acids could potentially indicate whether the suspect was a vegetarian or meat-eater.

Professor Kazarian believes that this technique could allow forensic scientists to observe how fingerprints change in time and within different environments.

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

## Centre for Pervasive Sensing launched

The Centre for Pervasive Sensing was launched in July 2007 bringing together researchers within the College to integrate, identify and develop technologies in pervasive sensing. One of its first acts was to distribute £80,000 to seven Imperial-based projects making advances in wireless sensor networks – from healthcare to environmental engineering.

A range of projects received funds including work on pervasive sensing in total knee replacement, environmental monitoring of building structures, electrochemical sensors for measuring water quality and flow velocity, remote monitoring of spreading brain

depoliarisation, and cost effective traffic and road condition monitoring.

Professor Guang-Zhong Yang, Chair of the Centre for Pervasive Sensing, said it was important that the College could now focus on further developing this research: "Imperial has an established record in pervasive sensing research and I am pleased that we now have the capability to coordinate and distribute funding to projects College-wide."

## Sporting glory is all in the ear



Professor Guang-Zhong Yang, Director of Medical Imaging and Robotics Research at the Institute of Biomedical Engineering, and his team have developed an unobtrusive body sensor, the size of a hearing aid, which could monitor and ultimately improve the performance of an athlete while training.

The sensor is inspired by the semicircular canals of the inner ear, which are responsible for controlling motion and balance. It fits snugly behind the ear and gathers large amounts of data about posture, step frequency, stride length, acceleration and response to shock waves travelling through the body.

A computer, the size of a pin head, but with enough power to process information, sits inside the earpiece and transmits data to a laptop or handheld display trackside. This allows for real-time monitoring of the athletic performance by coaching staff.

"The process of having biomechanical data available on the spot during training sessions makes the whole process of improving sporting technique much quicker and easier," says Professor Yang.

"Current available body sensors are cumbersome, hinder athletic performance and cannot deliver real-time monitoring.

"Our sensor technology is comfortable to wear and does not affect the aerodynamics of an athlete's performance. This makes the data more accurate and much more valuable," explained Professor Yang.

He believes that the sensor also has important potential applications for preventative medicine especially for the elderly and patients with chronic illnesses.

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### New partnership fosters nuclear science education and research

World class nuclear science research and education at Imperial College received a boost as a result of a new collaboration with industry. Professor John Wood, Principal of the Faculty of Engineering, and the Managing Director of Nexia Solutions, Dr Peter Bleasdale, signed a memorandum of understanding in November 2007. The agreement establishes a range of opportunities to deepen exchanges of personnel, provide valuable expertise in nuclear science and establish a conduit for graduates into the industry.

### One of the most cited pieces of research gets its due

The far-reaching influence of the Statistical Associating Fluid Theory (SAFT), which permits scientists to make precise predictions about the behaviour of a broad range of liquids including solutions of polymers and surfactants, has been underlined as one of the most cited papers of the last 30 years, by the American Chemical Society's *Industrial and Engineering Chemistry Research* journal. It was co-authored by Professor George Jackson from Imperial's Department of Chemical Engineering and Chemical Technology.

### Acoustics engineer takes top award

In October 2007, acoustician Dr Frederic Cegla was recognised by the Institute of Acoustics' award for innovation in acoustical engineering for his project on *Ultrasonic Thickness Monitoring in Harsh Environments*. It celebrates the contribution of young acoustical engineers in British industry. His project, which describes the development of a robust ultrasonic 'acoustic cable' which allows measurements to be taken in environments that are constantly subjected to harsh conditions, received the first runner-up prize.

### Congestion charge: potentially unsafe for motorcyclists

Imperial College and Loughborough University researchers found an increase of up to 40 motorcycling casualties per month during the London congestion charging period. Dr Robert Noland said: "Data indicates an increase in motorcycle trips within the charging zone of about 15 per cent. The incentive to use motorcycles, which are exempt from the congestion charge, could explain why parts of London have experienced an increase in motorcycle casualties."

## Lowering blood pressure cuts stroke and mortality in elderly patients



Giving blood pressure-lowering medication to elderly patients significantly lowers both stroke and mortality, according to the preliminary results of an international clinical trial coordinated by scientists from the Division of Medicine.

The 3,845-patient Hypertension in the Very Elderly Trial (HYVET) began in 2001 and is the largest clinical trial to look at the effects of lowering blood

pressure solely in those aged 80 and over. The results have been so encouraging that the trial was stopped early, in August 2007.

Previous smaller and inconclusive studies had suggested that, whilst 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, said: "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 of stroke."

## Obesity research boosted by watching hunger in the brain

Scientists can now measure how full or hungry a mouse feels, thanks to a new technique that uses imaging to reveal how neurons behave.

The researchers, led by Professor Jimmy Bell from the MRC Clinical Sciences Centre at Imperial, hope the technique will enable a far greater understanding

of why certain people become obese and why people have different appetites.



It had previously been very difficult to measure satiety, which is the psychological feeling of being full and satisfied.

In the new study, published in November 2007 in the *Journal of Neuroscience*, the researchers discovered that they could watch the neurons firing in the area of the brain that regulates appetite, by using a contrast agent to make the neurons visible on a magnetic resonance imaging scan.

When the mouse was hungry and the neurons consequently active, the contrast agent was taken up, making the neurons light up on the scan. The intensity of this signal decreased as the mouse became less hungry.



## Too few women in academic medicine

Female medics are under-represented in the UK clinical academic workforce, especially at the most senior levels, according to a new study published in September 2007 in the *Journal of Medical Education*.

The study looked at clinical academics – researchers who are also medical professionals – at all 32 UK medical schools, during the years 2004 and 2005. It found that women represented just 21 per cent of the total clinical academic workforce. Only one in ten medical clinical professors were female. At the onset of the study period, six medical schools employed no female professors at all.

Dr Anita Holdcroft, from the Division of Surgery, Oncology, Reproductive Biology and Anaesthetics and one of the authors of the study, said: "This study has confirmed that women doctors are not achieving senior positions in academic medicine despite adequate numbers of women medical students and academic trainees."

## Give scientists in developing countries the tools to fight HIV

Scientists from developing countries are vitally important in the fight against HIV and they must be given the proper resources to conduct their work, according to a commentary in the journal *Nature Immunology*.

Researchers from the Division of Investigative Science have been working with local scientists in Uganda, and other sites in the

>> NEWS IN BRIEF >>

**Medium viral loads contribute most to spread of HIV, says study** People with medium levels of HIV in their blood are likely to contribute most to the spread of the virus, according to research published in October in the journal *PNAS*. The study found that those with a high viral load are the most infectious, but their life expectancy is shorter. Those with a medium viral load are moderately infectious but remain asymptomatic for longer, so they can transmit the virus to a number of different partners. The viral load indicates the number of viral particles in the blood.

**Top honour for heart muscle expert** A researcher who investigates ways to repair heart muscle damaged by heart disease and heart attacks received a major award in the USA in November. Professor Michael Schneider, from the NHLI, won the 2007 Distinguished Achievement Award from the Council of Basic Cardiovascular Sciences. Professor Schneider's work looks at how to harness the body's own mechanisms to stop heart muscle cells from dying and help the heart to repair itself.

**Paediatric researcher wins prestigious prize** A researcher who focuses on preventing brain damage in babies won a highly prestigious award, given every five years in honour of the founder of the modern practice of paediatrics, in October. David Edwards, from the Division of Clinical Sciences, won the Arvo Ylppo medal, a €50,000 prize given to paediatricians in recognition of special contributions to medicine for newborn infants.

**New treatment developed for drop in standing blood pressure when standing up** A new treatment for orthostatic or postural hypotension, the sometimes debilitating drop in blood pressure that some people experience when they stand upright, has been evaluated in a trial by Imperial researchers. Orthostatic hypotension can occur in many conditions, particularly those where the autonomic nervous system is not working properly. The new treatment works by replacing levels of the neurotransmitter noradrenaline, which acts on blood vessels to raise blood pressure.

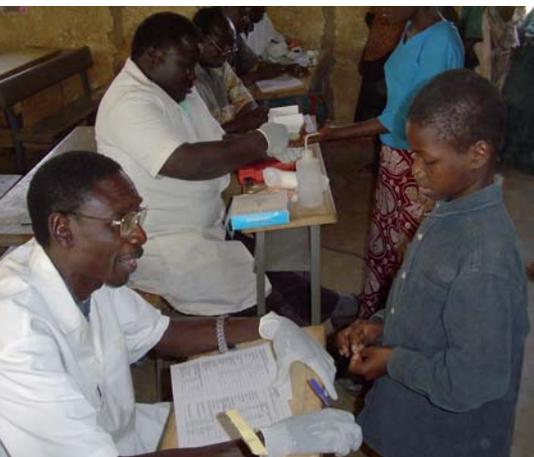


developing world, to enable large-scale trials of potential vaccines against HIV. They argue that Western governments and funding agencies must commit to sharing technology and expertise with those in the developing world.

“Old fashioned ‘parachute science’ – where scientists from the developed world flew in, bled a few patients, and immediately returned to their country of origin with their samples, is no longer required or acceptable,” said Professor Frances Gotch, one of the authors.

## Researchers fighting neglected tropical diseases win royal prize

A Faculty of Medicine programme that fights neglected tropical diseases (NTDs) in sub-Saharan Africa was awarded a major honour by Her Majesty The Queen in November 2007. The Schistosomiasis Control Initiative (SCI), which has delivered 43 million treatments for the diseases schistosomiasis and soil-transmitted helminths in just five



years, won a Queen's Anniversary Prize.

Professor Alan Fenwick, Director of the SCI, stressed that protecting all children in sub-Saharan Africa against NTDs was crucial for development in the region. NTDs affect around a billion people.

“Basic health and education should form the keystones of development, and the

health of children across sub-Saharan Africa is really compromised by these diseases,” he said. “We have children who can't get the education they deserve because they're too ill to attend school, and adults who are unable to work. People in the West don't appreciate how lucky we are not to have a parasitic burden.”

## Imperial opens UK's first paediatric research unit



Scientists will only make real breakthroughs in children's medicine if they include children in research programmes as well as adults, said Professor John Warner, Head of Imperial's Department of Paediatrics, at the opening in July 2007 of the UK's first unit solely devoted to paediatric clinical research. The new Paediatric Research Unit is run by researchers from Imperial and St Mary's Hospital and is based next to the hospital's paediatric wards.

Professor Warner explained that researchers should be designing therapies specifically for children

and their problems, rather than scaling down treatments created for adults. In many respects children have a different makeup.

“A lot of paediatricians' work doesn't have much of a scientific evidence base and we prescribe drugs by extrapolating from what we know about adult bodies. We have a desperate need to understand precisely how children's bodies work so that we can custom-design therapies for them and their problems,” said Professor Warner.

Researchers in the new unit will be investigating many areas including paediatric allergies and how these can be prevented; new treatments for neuromuscular diseases such as Duchenne muscular dystrophy; sleep disturbance and how this affects health and behaviour; and new treatments for acute and chronic chest disorders such as bronchiolitis and asthma, to name but a few.

>> NEWS IN BRIEF >>

**Treat all patients with rare lung disease to prevent stroke, say doctors.** Treatment should be offered to all people with a particular rare lung condition, whether or not they show symptoms, said the researchers behind a study in *Thorax* in November. This suggested that all patients with abnormal blood vessels in their lungs, known as pulmonary AVMs, might benefit from treatment to block off the malformed blood vessels. “A pulmonary AVM patient who is fit and well has the same stroke risk as someone who is on oxygen,” said Dr Claire Shovlin.

**Cross-campus celebrations for ten years of Medicine** This year saw celebrations at campuses across the Faculty of Medicine, as it held special events to commemorate the tenth anniversary of its formation and Imperial's Centenary. Events included interactive exhibits, a schools event and a staff barbecue at Charing Cross; the launch at St Mary's of *Doctors at War*, a new book by St Mary's medics; a lecture at the South Kensington Campus by Lord Robert Winston; and a lecture by Nobel Prize winner Ferid Murad at the Royal Brompton.

**Harvard scholarship for medic Michelle** Imperial medic Michelle Krishnan arrived at Harvard University in August, after becoming one of just 10 UK students to be awarded a prestigious Kennedy Scholarship. Michelle is using her placement as a Visiting Research Fellow to continue her research using MRI scanning to monitor the progress of premature babies. The annual scholarships give students the opportunity to study at MIT or Harvard, with the aim of deepening their expertise and promoting transatlantic relations.

**Award for student science writing** Imperial PhD student Anne Corbett won joint first place in the prestigious MRC Max Perutz Science Writing Award in July 2007, for an essay she wrote about meningitis. Anne, from the Division of Investigative Science, was presented with her £1,000 prize by the acclaimed author Ian McEwan. Her winning essay *Behind enemy lines – discovering the stealth tactics of the meningococcus* described her work on the human meningococcus pathogen and it was published in *The Guardian* newspaper as part of the prize.

## Ministerial visit launches US research link



Science Minister Ian Pearson visited the College in October 2007 for the official launch of the Global Lab, a new research link that allows scientists in London to use and manipulate, in real time, leading multi-million dollar scientific instruments and technology in the United States.

The Global Lab links laboratories in the UK and the US through a high bandwidth, low latency network, the Lambda Rail, running across the Atlantic seabed. The Lambda Rail can move vast amounts of data virtually instantaneously across thousands of miles.

The new Global Lab link has been established as part of the AtlanTICC Alliance, a sustainable energy research consortium, comprising Imperial College London, Georgia Institute of Technology, and the Oak Ridge National Laboratory in Tennessee.

Imperial's Dr Tariq Ali, Director of the AtlanTICC Alliance, said: "The Global Lab link will be an invaluable tool for scientists from all three institutions involved."

## Herding aphids – how ants keep control of their food



New research published in *Proceedings of the Royal Society B* in October 2007 showed that chemicals on ants' feet tranquillise and subdue colonies of aphids, keeping them close by as a ready source of food. The study throws new light on the complex relationship between ants and the colonies of aphids whose

sugary 'honeydew' secretions the ants eat.

Scientists had previously established that certain types of aphids live in colonies where they are used as a food source by a neighbouring colony of ants. The ants have been known to bite the wings off the aphids to stop them getting away and depriving the ants of one of their staple foods. The new study shows that ants' chemical footprints play a key role in manipulating the aphid colony, and keeping it nearby.

The research team, led by Department of Life Sciences postgraduate Tom Oliver, used a digital camera and specially modified software to measure the walking speed of aphids when they were placed on filter paper that had previously been walked over by ants. The data showed that the aphids' movement was much slower when they were on this paper, than on plain paper.

Tom said: "We believe that ants could use the tranquillising chemicals in their footprints to maintain a populous 'farm' of aphids close to their colony, providing honeydew on tap."

## Fungus among us



A species of fungus new to science has been discovered at Imperial's Silwood Park Campus and has been named after it. The new species is a non-edible relative of the famous Penny Bun (or Cep, *Boletus edulis*) commonly used in French cuisine.

The new species was found growing in a poplar grove behind the William Penney halls of residence by Alan Hills, a leading expert on boletes – the name of this type of fungi. The new finding was described in the journal *Mycological Research* by Alan and his

colleagues, in which they named the fungus *Xerocomus silwoodensis*. It is the latest addition to this group of fungi, which are known as the suede boletes for their velvety textured, rusty coloured to pale sepia tinted caps, lemon-chrome tubes and yellow stems that sport a network of brick-red veins.

Professor Mick Crawley, who manages the natural habitats of Silwood Park Campus, said: "It is entirely fitting that a campus dedicated to the study of biodiversity should have a new species named in its honour."

>> NEWS IN BRIEF >>

**Celebrating 30 years of environmental technology\_** Staff, students, alumni, VIP speakers, and past and future Rectors of Imperial gathered at the College in October 2007 for an event to celebrate the 30th anniversary of the College's MSc in Environmental Technology. The evening event was attended by over 400 people and hosted by Imperial's Centre for Environmental Policy. It featured talks by specially invited VIP speakers and a social networking event where alumni could catch-up and reminisce about their time at the College.

**Imperial scientist named UK Chief Scientific Advisor\_** Imperial biologist Professor John Beddington FRS was announced as the new Chief Scientific Advisor to the Government in October 2007. Professor Beddington holds the Chair in Applied Population Biology at Imperial. His research has focused on environmental science on a national and international scale, and he is known particularly for applying his expertise in economics and biology to the management of fisheries and other renewable resources.

**Top award for space science\_** Professor David Southwood from the Department of Physics was awarded the Council of European Aerospace Societies' prestigious Gold Medal in September 2007. Professor Southwood, who is also Director of Science at the European Space Agency, received the award in recognition of his work to put European space science on the world map. Professor Southwood said: "I'm extremely proud to have been awarded this medal – I had no idea I'd been nominated!"

**Green light for real gem of a project\_**The Big Lottery Fund announced in August 2007 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 local communities to assess the soil, water and air quality in their surroundings.

## Mapping the stars

Imperial physicists are part of an international team mapping a distant strip of the universe to be included in *Google Sky*, a new feature of *Google Earth*, which maps the earth by superimposing images obtained from satellite imagery and aerial photography.

The team is taking deep images of an area of sky known as the Extended Groth Strip, an area close to the end of the Big Dipper's handle. The All-wavelength Extended Groth Strip International Survey (AEGIS) is observing the same region of the sky in the radio, infrared, visible, ultraviolet and X-ray regions of the electromagnetic spectrum, with the goal of achieving a greater understanding of the evolution of galaxies over the last 10 billion years.

Academics from Imperial College London, part of the global team, have used the NASA satellite telescope Chandra to take deep images of the area to detect highly energetic X-ray radiation from objects in the sky.

"We are looking back to a time when the universe was more than half its current age and when galaxies were forming most of their stars," said the project's Professor Kirpal Nandra, Department of Physics. He added: "With the X-ray images, we are looking at black holes at the centre of galaxies to try to work out how the growth of black holes is linked to the growth of the galaxy itself."



One of the report's authors, Dr David Giuliano from the Department of Life Sciences, said: "We hope that our data will enable both ourselves and other research teams to study the mechanisms by which this parasite infects people in greater detail, which should lead to better targeted drugs to treat infection, and hopefully – in the long run – a vaccine to prevent it."



## Electrical fields could increase infection risk

Electrical fields generated by everyday electrical equipment such as computers, and excess static charge created by many modern materials, could be bad for your health, said new research published in *Atmospheric Environment* in August 2007.

The study indicated that prolonged exposure to the electric fields generated in everyday indoor environments might cause increased risk of respiratory diseases and infection from small airborne particles such as allergens, bacteria and viruses.

These electrical fields have also been shown by the authors to significantly reduce localised concentrations of charged molecular oxygen, a type of small air ion, that enhances biological functioning and kills harmful microbes.

Lead author Keith Jamieson, from the College's Centre for Environmental Policy, said: "There are a number of easy actions which can already be implemented in the workplace and the home to help reduce the toxic load our bodies have to deal with and the risk of illness and infection being transmitted in this way. In the case of

electrical equipment, particularly laptops, ensuring they are earthed can often greatly reduce fields."



## Scientists worm their way into parasite DNA

Scientists have successfully sequenced the DNA of a parasitic worm that causes the painful and disfiguring disease elephantiasis. The data, published in *Science* in September 2007, identifies all the genes encoded in the *Brugia malayi* filarial worm's DNA.

Filarial worms infect over 130 million people worldwide and are transmitted by a mosquito bite. Once inside the human body they develop into adult worms in the lymphatic vessels, causing severe damage, pain and swelling. Painful, disfiguring swelling of the legs and genital organs is a classic sign of late-stage disease.

>> NEWS 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, to encourage greater collaboration across the entire spectrum of life sciences. It is run by a management team from all three constituent divisions and led by Professor Ian Owens, from the Division of Biology, who took up the new post of Head of the Department on 1 August 2007.

### Another dimension to politics

Anne Snelgrove MP visited Dr Andrew Jaffe at Imperial's Department of Physics as part of the Royal Society's MP-scientist pairing scheme in September 2007. Ms Snelgrove was given an overview of the work Dr Jaffe and his colleagues carry out looking at the constituents of the universe, from nearby stars to the most distant galaxies and beyond. Earlier in 2007, Dr Jaffe spent a week in Westminster, where he attended seminars on the interaction between science, research and government.

### New understanding of how anaesthetics work on the brain

New research published by Imperial scientists in the *Journal of Biological Chemistry* provided an important clue to how anaesthetics work on the human body. The study focused on the discovery of a molecular feature common to both the human brain and the great pond snail nervous system. It is hoped that new-found understanding of what makes a particular protein in the brain sensitive to anaesthetics could lead to the development of new anaesthetics with fewer side effects.

### World-leading climate expert to direct the Grantham Institute for Climate Change

Professor Sir Brian Hoskins, a renowned meteorologist and climate scientist, has been named as the first Director of the Grantham Institute for Climate Change. He has built one of the world's foremost meteorology departments at the University of Reading. Professor Hoskins is a world-leading authority on climate issues and global weather patterns, and uses mathematical models to understand weather systems in different parts of the world and how they interact.

## The Rajiv Gandhi Centre for Innovation and Entrepreneurship



THE PHOTO UNIT

The Rajiv Gandhi Centre for Innovation and Entrepreneurship, which was officially launched in Mumbai on 3 December 2007, aims to be the pre-eminent partner of choice for education, technology transfer and research focused on innovation and entrepreneurship in India. Professor Gerry George, the Centre's Director, has already had a string of successes in executive education.

Speaking at the launch event Professor David Begg, Principal of the Business School, explained the new Centre's focus: "Indian companies are stepping up, striving to compete globally on more than simply cost competition. Well managed innovation processes unlock the potential value in a company and are vital to this transformation. The Centre helps facilitate this important step change."

The Centre is developing programmes for six top UK and Indian companies to be delivered in London and India in 2008. It will first invest in technology transfer research in India and work with Indian companies to transform their ideas into global opportunities. It will also focus on facilitating links between the College's energy, environmental and health research areas and relevant UK and Indian companies.

A programme of networking and recruitment events is scheduled for early 2008 to establish connections between interested parties and help leading Indian and UK companies manage their talent.

Read more about the Rajiv Gandhi Centre on page 8 of *building the connection*.

## New Healthcare Management Research Group



CAROL PROPPER

October 2007 saw the arrival of Professor Carol Propper from the University of Bristol and with it the establishment of Tanaka Business School's fourth research group.

The Healthcare Management Group brings together the School's existing talent in a single, focused group comprising economists and management experts dedicated to improving

healthcare outcomes across the globe. It hopes to achieve this through better understanding and improvement of healthcare systems, service provision and the built environment in which healthcare services are offered. It is particularly interested in the impact of incentives on innovation and healthcare productivity.

The group will use the opportunities for management and policy research offered by both the Faculty of Medicine and the Imperial College Healthcare NHS Trust, an Academic Health Science Centre to be run by the College, about which you can read more on page 18. Professor Propper's research focuses on the responses of providers, buyers and users of healthcare to economic incentives. Also joining the group over the summer was Christopher Chapman as Professor of Accounting. His work looks at the nature and role of performance evaluation and control systems in the NHS.

## Leon designs project's future

Nick Leon has been appointed Director of Design-London, a collaboration between Imperial's engineers, MBAs and the Royal College of Art's designers. On his appointment Nick outlined the direction and intent of the project, which will offer new teaching courses, conduct research on design-innovation and help new businesses flourish in an 'incubator'. It will also bring together more of the latest visualisation, simulation and digital manufacturing technology, relevant to product, process and services design and development than in any other European university.

He explains: "Successful innovation demands a systemic not a component approach to designing new products and services. Edison didn't just patent a light bulb – he delivered an entire new system that changed our world. He was an engineer, a master systems thinker, conceptualiser and entrepreneur. Design London may not find the next Edison, but we can stir together those same domains of expertise in multidisciplinary teams."

In the first quarter of 2008, new projects and commercial partners will be announced. A simulator and other technology for the project will be developed for use in teaching and trials of this technology will begin later this year with existing students. The first businesses will also enter the incubator and have their ideas developed by some of Europe's leading experts in the field of innovation, design and engineering.

>> NEWS IN BRIEF >>

**New Research Director sets top-20 target** Professor Jaideep Prabhu has been named as the School's new Research Director, replacing Professor John Bessant. Already at the top of UK business schools in terms of research income and A-journal publications per capita, he hopes to add a third element to the equation, saying: "I look forward to moving the School into the top 20 research business schools worldwide. We will work collaboratively to raise the profile of the School's research output in order to ensure that our work has the visibility it deserves."

**Looking back to see the future** Markets, foreign currency exchanges and climate change will be better understood and more accurately predicted following research work taking place in Tanaka Business School. The Economic and Social Research Council made a grant award to a project called *Extraction of trend, cycle and memory from economic and financial series*. The research, of which Professor Karim Abadir from the Finance and Accounting Group is the Principal Investigator, aims to help governments and central banks make more effective economic policy choices.

**New Business School Partnership Programme** Finance students at the Business School looking to pursue a career in finance now benefit from an enhanced profile amongst employers after a new programme partnership was agreed between CFA Institute, the global membership association that administers the Chartered Financial Analyst programme, and the School. This means that 70 per cent of the CFA programme's qualification body of knowledge is contained in the MSc Finance curriculum, speeding the way toward the internationally recognised qualification.

**Prize winner returns** Dr Robert Kosowski, Head of the Hedge Fund Centre at the Business School, won the prize for the Best Paper Relevant to Foundation and Endowment Asset Management at the Annual Meeting of the European Finance Association. The paper entitled *Investing in hedge funds when returns are predictable* explores how predictability in hedge fund returns can be used in a hedge fund selection rule to create a hedge fund portfolio with superior risk-adjusted performance.

# GIVE THEM A FLYING CHANCE!

When the late Maurice Hancock left a £1.3 million unrestricted donation to the College in his Will, he crafted a lasting legacy to his fascinating life. He was the founder of the gyroscopic fighter gun sight technique used to combat the observation problems that pilots faced in the dogfights of World War II. Throughout his life, Maurice's innovation and flair helped scores of pilots to take to the skies, and his gift continues through his Will, arming future generations with the potential to fly through the rich benefits and rewards of an Imperial education.



## Have you considered leaving a legacy to Imperial College?

Bequests have allowed us to provide student scholarships and support for world class research, and have helped us in our mission to furnish students with an academic environment to match their talent. By remembering the College in your Will you are not only honouring your heritage, but also sowing seeds to enable the next generation of Imperial students to follow in your footsteps.

There are also firm financial grounds for leaving a legacy to Imperial College.

*Inheritance tax affects a growing number of people in the UK, especially due to the huge rises in house prices over the last few years. The College's charitable status means that any bequest made to Imperial is exempt from inheritance tax.*

**If you would like to discuss leaving a legacy to the College please contact Rosalind Griffin on +44 (0)20 7594 6159 or email [supporting@imperial.ac.uk](mailto:supporting@imperial.ac.uk).**

**Imperial College  
London**

feature

Imperial College  
London  
100 years of living science  
100

TAKE A LOOK BACK AT 2007 – A YEAR  
PACKED FULL OF CELEBRATIONS MARKING  
THE COLLEGE'S CENTENARY

# Wrapping up our Centenary year



BY ZOË PERKINS

THROUGHOUT 2007, IMPERIAL HAS BEEN CELEBRATING *100 years of living science* – the Centenary of its foundation in 1907. Whether student, alumnus, staff or friend of the College, there really was something for everyone to enjoy and remember from this special year, *Imperial Matters* invites you to relive some of the highlights.

## ROYAL SEAL OF APPROVAL

The pealing bells of the Queen's Tower marked the official launch of Imperial's Centenary celebrations on 30 January 2007. Each of the College's campuses was adorned with red and blue Centenary balloons for the launch day that saw the whole College community join together. Staff dressed in historical costume to serve a 1907 menu, which included devilled whitebait, guinea fowl and lamb canon; over 5,000 slices of Centenary cake were devoured; and Imperial students put on displays of music and juggling. The day culminated in the Centenary launch lecture *From Albert to Z bosons and beyond*, which took the 750-strong audience on a grand tour through the history of Imperial College, delivered by the Rector, Sir Richard Sykes.

January's launch day also marked the public launch of Imperial's Centenary fundraising campaign to raise £207 million from philanthropic donations. Whilst the year of celebratory events is now over, the campaign continues, and it is well on the way to raising the full amount by July 2010, providing scholarships for gifted students, contributing to building and refurbishment projects across the campuses and supporting the academic mission.

The celebration of Imperial's actual 100th birthday in July was marked with a special ceremony in the presence of Her Majesty The Queen and His Royal Highness The Duke of Edinburgh, who opened the Institute of Biomedical Engineering before taking part in an honorary graduation ceremony that celebrated both the Centenary and Imperial's newly granted independence as a university in its own right.

## HAVING A BALL

On a day that normally marks the close of the Christmas festivities, Imperial College was just beginning a whole year of celebrations, and it was the College's students who got the party started at the 21st New Year's Day parade. Students from all three of the College's faculties dragged themselves out of bed bright and early to join motorised mascot Jezebel for the parade through Westminster, which was watched by over 500,000 people and broadcast around the world.

The College's student community came up with plenty of novel ways of marking *100 years of living science*, including former Student Union President John Collins who cycled from Land's End to John O'Groats in aid of one of the College's Centenary fundraising projects, the Beit Quad refurbishment. You can read more about John's cycle ride on page 28.

One of the most spectacular events of the year was the Imperial College Union Centenary Ball in June, with former *X Factor* contestants Ben Mills and Eton Road performing in the College's Great Hall, a fun fair and fireworks on the Queen's Lawn, a casino in the Beit Quadrangle and a burlesque show performing in the Main Dining Hall. Over 2,500 students danced the night away, many making it through the whole night for the traditional survivors photo at 4am by the Queen's Tower.

Students were even able to toast the College with 'Imperial 100', an ale specially brewed by Blindman's Brewery in Leighton, Somerset, to mark the College's celebratory year. Brewed to appeal to both students and traditional ale drinkers alike, Imperial 100 was mid range in colour and quite light, and was available at all Imperial's licensed outlets throughout 2007.

## REUNITED AND REMINISCING

The Centenary celebrations have been about recognising everything that has made the College the success it is today – which is where Imperial's alumni come in. Fiona Kirk, Director of

Development, explained how Imperial's alumni have celebrated the Centenary, saying: "Our international alumni groups have also hosted events around the world for our global community. Special reunion dinners and events have taken place in Australia, Hong Kong, Singapore, India, Malaysia, Thailand, the USA and across Europe."

Our alumni groups were right at the centre of the festivities, in Germany the alumni group sailed down the 'Flaming Rhine' beneath spectacular fireworks accompanied by French chansons and champagne during their *100 for 100* event, and in Australia alumni enjoyed smoked salmon and Western Australian lamb rump at their Centenary dinner.

Back in the UK, Friends of Imperial College put on an engaging event programme throughout 2007, which included Professor Sir John Pendry delivering a lecture called *Invisible cloaks and a perfect spyglass*. Tanaka Business School's first ever Alumni Reunion took place in July; the business-focused conference programme, social get-togethers and evening cocktail party were hosted in the beautifully decorated Business School, which provided an exceptional backdrop.

Two of the highlights of the year were the Alumni Reunion 2007 and the Annual Alumni Lecture delivered by alumnus Brian May, which you can read more about on pages 15 and 16.

#### A SENSE OF COMMUNITY

Staff from all the College's campuses gathered to celebrate Imperial's 100th birthday in style at the Centenary Staff Party on Wednesday 11 July. There was something to suit everyone's tastes, with food ranging from a civilised afternoon tea to a sizzling barbecue. Ears were also offered a treat with Prince's Gardens hosting a selection of live music reflecting the last 100 years. Nearly 4,000 staff attended and enjoyed the range of entertainment on offer.

Thanking everyone at the College and in the alumni community for making the Centenary celebrations such an enormous success, the Rector shared one of his experiences of the year: "One event that sticks in my mind as a real peak of the Centenary celebrations is the Centenary staff party. One of the aims of the Centenary year from its outset was to help build a stronger sense of community at the College – and the party at South Kensington certainly did that!"

Imperial's academics were joined by some of the most recognised names in science, technology and medicine to deliver a programme of prestigious Centenary lectures throughout 2007. Professor Lord Robert Winston, Emeritus Professor of Fertility Studies, looked back at the history of fertility issues, genetic modification and the way we can manipulate reproduction in his lecture *Manipulating the Human*. Nobel prize-winning

scientist Dr James Watson, who together with the late Francis Crick, successfully proposed the double helical structure for DNA, spoke about *Rules for Important Science* in June, while Professor Lord Robert May, past President of the Royal Society, delivered his lecture entitled *Relations Among Nations on a Finite Planet*, in October.

#### HITTING THE HIGH NOTE

Imperial's celebrations have encouraged the College's friends to join the celebrations in this special year. The Imperial College Symphony Orchestra performed a celebratory Centenary concert in the sumptuous surroundings of Cadogan Hall in March. In its biggest performance of recent years, nearly 700 guests watched the exciting performance that was opened by Leonard Bernstein's energetic *Overture to Candide*. Imperial's celebrations took a literary turn on 1 May with the official launch of *The History of Imperial College London 1907–2007*, written by Senior Research Investigator Dr Hannah Gay. The launch drew together a range of familiar faces from Imperial's past and present, including former Rectors Lord Oxburgh, Lord Flowers and Sir Eric Ash.

After weeks of rigorous training, former PhD student Ben Ryall pounded the pavements from Blackheath to Buckingham Palace as he conquered the world famous Flora London Marathon in aid of the Student Opportunities Fund. Completing the route in just two hours and 53 minutes, he raised £25,000. Imperial's sporting clubs also hosted the IDEA League Sports Event in June, which saw 100 students from Imperial and our European partner universities competing in a range of sporting activities.

Continuing the sporting trend, some of Imperial's oarsmen provided a spectacular display in celebration of the College's Centenary when they performed a row-past at teatime on the Saturday of the Henley Royal Regatta in July. The two eights were the record holding Ladies Plate eight of 1992 and Thames Cup crew of 1995, which contained three of the Sydney gold medal eight from 2000 – Luka Grubor, Simon Dennis and Louis Atrill.

You can see more of the photos taken throughout 2007 on page 14.

#### A BRIGHT FUTURE

A great sense of community has been engendered at the College as we've celebrated Imperial's achievements over the last 100 years. We've reconnected with many alumni and forged new relationships that we hope will continue to grow as the College enters its second century as an independent university.



Rector's past, present and future join Imperial's 100th birthday celebrations in July.



Lord Darzi at the Alumni reunion in September.

Centenary year in pictures



Left: Students enjoy the summer ball.  
Insert above: Sir Richard Sykes delivers the Centenary Launch Lecture.



Left: Author Hannah Gay at the launch of *The History of Imperial College 1907-2007*.  
Right: Her Majesty The Queen arrives to celebrate Imperial's 100th birthday.  
Below right insert: Exhibition Road Family Day.



Above: Centenary staff party.  
Bottom right: Commemoration Day at the Royal Albert Hall.  
Above right: Ben Ryall competes in the Flora London Marathon.

HAN GILLET, BEVILLE SMILES, COLIN WATKINSON, MAGDA WESTON AND EMMA BOWRETT

NEARLY 900 ALUMNI AND GUESTS JOINED THE COLLEGE'S CENTENARY CELEBRATIONS AT THE ALUMNI REUNION 2007.

# Centenary celebrations reunite alumni

BY ZOË PERKINS AND NAOMI WESTON

NEARLY 900 ALUMNI AND GUESTS FROM ALL OVER THE WORLD attended three days of activities over the weekend of 14–16 September 2007 in celebration of the College's Centenary year. The Alumni Reunion 2007 brought former students from all departments back to the College to meet old friends and find out how Imperial has developed over the years.

Testing how much alumni really know about the College's history, the reunion kicked off on the Friday night with a Centenary quiz. While for the less historically minded, the Faculty of Engineering's departments and the Department of Chemistry hosted receptions for their alumni, giving former students the opportunity to see how much, or how little, has changed.

Sonjoy Premi (PhD Mechanical Engineering 1985) thoroughly enjoyed the Mechanical Engineering open evening, especially Emeritus Professor Sir Hugh Ford's lecture and the tours of the Department's research labs. "It was also great to meet Professor Colin Besant, my PhD supervisor, and my classmates," he commented. "The reunion brought back many fond memories, which I shall cherish for the rest of my life!"

Academics from each of the College's faculties gave an insight into the recent developments in science, technology and medicine, including Lord Darzi, Chair of Surgery at Imperial and Parliamentary Under Secretary for the Department of Health, who delivered an engaging lecture on *Technology in surgery*. The keynote lecture by the government's Chief Scientific Advisor, Sir David King, on *The global challenges of climate change*, was another of the weekend's highlights.

Talking about the Saturday's lecture programme, David Angwin (Mechanical Engineering 1942, 1948) said: "The lectures were fascinating and understandable, even to someone out of touch with the latest scientific and technological developments."

There was also the opportunity to climb the 324 steps of the historic Queen's Tower, enjoying views over the College and west London. Brian Roper (MSc Earth Science and Engineering 1979)

said: "The view from the tower was still as exhilarating as it was 28 years ago."

Saturday's entertainment culminated in a reunion dinner in a marquee on the Queen's Lawn. Hosted by the Rector, Sir Richard Sykes, the event brought together 250 alumni and guests, who were entertained by the Imperial College Big Band and a spectacular fireworks display. Sir Richard said: "I was delighted to see so many alumni back at the campus. This weekend is without a doubt one of the biggest and most exciting events of our Centenary year." He added: "This is a year that belongs to everyone who has ever studied or worked at Imperial College during the last century."

Sunday offered the chance to explore the campus, and many alumni commented on the changes that the South Kensington Campus has seen over recent years. Among them was Tony Lucking (Physics 1943, Electrical and Electronic Engineering 1949) who observed: "One of the most obvious changes is that all our buildings have been replaced! But perhaps the most noticeable change is the arrival of medical and management activities." Many departments opened their doors to tours and demonstrations for alumni and their families. Julian Race (Physics 1989) had an "enlightening and thought provoking visit to his old department".

The closing event for the weekend was a barbecue in Beit Quad; a final chance to meet up with former classmates.

Looking back at the event, Fiona Kirk, Imperial's Director of Development, said: "The weekend was a great success. It was wonderful to see so many people returning to the College and reminiscing about their time here."

Visit [www.imperial.ac.uk/alumni/reunion2007](http://www.imperial.ac.uk/alumni/reunion2007) to view photos taken throughout the weekend, watch Sir David King's keynote lecture and hear alumni reminiscing about their years at the College in the reunion's memory pod.

Alumni will be invited back to the College for a reunion every 10 years, so alumni from the classes of 1928, 1938, 1948, 1958, 1968, 1978, 1988 and 1998 will be invited back in 2008.

# Dust rocks!



BY ZOË PERKINS

DURING INTERVIEWS TO PROMOTE *BANG! THE COMPLETE History of the Universe*, the book he co-authored with Sir Patrick Moore and Dr Chris Lintott, Brian May made several references to wanting to complete the PhD he had begun but put on hold more than 30 years earlier, while he found fame as guitarist in one of Britain's most successful bands of the past three decades, Queen. Upon hearing this, Professor Michael Rowan-Robinson, Professor of Astrophysics in the Department of Physics and Head of the Astrophysics Group from 1993 until May this year, contacted Brian about the possibility of completing his PhD, but concluded that he would not have enough time to dedicate to completing his thesis because, as he put it, "Queen still rocks". Brian, however, was not to be deterred.

Explaining the difficulties that Brian faced having left his research for so long, Professor Rowan-Robinson said: "Brian brought along print-outs of what he had written in 1974, before he got dragged away by Queen. It was then that I realised that Brian really was going to have a mountain to climb. He was going to have to review 30 years of work and, although the thesis was quite close to submission in 1974, it would still have needed a fair amount of work, even then."

The subject of Brian May's 48,000-word PhD thesis, *A survey of radial velocities in the zodiacal dust cloud*, zodiacal dust originates from the tails of comets and asteroid collisions forming disk shaped zodiacal clouds that can sometimes be seen with the naked eye as a triangular glow above the horizon just before sunrise or after sunset. Speaking about his thesis, Brian said: "We're interested in zodiacal dust because, presumably, the dust has a lot to say about the way planetary systems evolved."

"Since the discovery of exosolar and extrasolar planetary systems, the whole business of dust related to comets, asteroids and the way planets are formed has become quite trendy again, and I'm very fortunate that I was able to come back to the subject and make some kind of contribution," he added.

A year after resuming his PhD, Brian returned to the South Kensington Campus, which he got to know so well as a Physics undergraduate between 1965 and 1968, to hand in his completed thesis to Professor Kirpal Nandra, Professor of Astrophysics, in August 2007. It was a momentous day, not just because it is highly unusual for a PhD registration to have lapsed for more than 30 years, but also because his was the first PhD submission since the College's withdrawal from the University of London, making it the first Imperial College London PhD.

As Brian is one of Imperial's most famous alumni, it was no surprise that nearly 400 alumni and their guests packed the Great Hall eagerly anticipating Dr Brian May's first, and possibly only, lecture on the subject of this PhD thesis. Taking to the stage to deliver the Annual Alumni Lecture, Brian noted: "It's very interesting for me looking out on all your faces, because I know you've all been through, not the same experience, but the same parallel of experiences. We've all been through this incredibly high-powered machine, which Imperial College is, and it hopefully trained us for the jobs we were about to do and the lives we were about to have."

Moving on to the subject of the lecture, he commented: "It's a challenge to make things from your little corner accessible to others. I know I'm talking mainly to scientists, but not necessarily to astronomers." The hour-long presentation featured photos of the Fabry-Perot etalon that Brian used to measure the wavelengths of light, his personal photographs of zodiacal light, and even photos of Brian himself during his original research in the early 1970s.

The lecture was followed by a reception in the Senior Common Room, which was transformed with model planets and atmospheric lighting. Many alumni met up with former classmates over drinks and canapés, and Brian was lucky enough to be able to catch up with four of his own classmates.

Visit [www.imperial.ac.uk/alumni/annuallecture](http://www.imperial.ac.uk/alumni/annuallecture) to see photos from the Annual Alumni Lecture 2007.

# A rare vintage



BY LIZ GREGSON

IN 2004, PROFESSOR RICHARD SELLEY (PHD GEOLOGY 1963), Emeritus Professor of Geology and Senior Research Fellow at Imperial College, published his book *The Winelands of Britain: Past, Present and Prospective*. This presented the results of interdisciplinary research on the geological and climatic controls on British viticulture, the cultivation of grapevines, over the last two millennia.

“It really began as a study of the geological controls on viticulture, but mother nature has a habit of tripping up researchers and sending them off in a completely different direction from that which they intended,” said Professor Selley.

The data revealed that the northern limit of British viticulture advanced and retreated correlative with temperature through the Roman Warm Period, the Saxon Sag, the Medieval Warm Period, the Little Ice Age, and the Industrial Revolution Warm Period. Romans made wine on an industrial scale as far north as Lincolnshire, producing *vin de pays* for the legionnaires on Hadrian’s Wall. Viticulture collapsed with temperature in the Dark Ages, but became widely re-established by the Normans during the Medieval Warm Period. Anglo-French peace treaties occasionally included a stipulation banning the export of English wine to France. In the Little Ice Age vineyards only existed in the south east of England.

Now they are gradually moving northwards once again, having reached as far north as Lancashire. Professor Selley concluded his book by speculating on the future of viticulture as global warming continued, fantasising about the Côtés D’Ecosse in 2100. This prompted the *Daily Express* to run the headline ‘Drink Chateau Loch Ness for a Monster Hangover’. The work attracted widespread national and international media interest and brought him Honorary Membership of the British Wine Guild.

Professor Selley has had a long interest in viticulture and was responsible for the establishment of Denbies vineyard on the North Downs, near Dorking, in 1986. At 106 hectares (260 acres)

Denbies is one of the largest vineyards in Europe. Professor Selley noted that the sunny well-drained chalk slopes were comparable to those of the Champagne area of France. This, coupled with the beneficial effects of global warming, makes Denbies an ideal site for a vineyard. Like most British vineyards, Denbies was first planted with cool climate grape varieties similar to those of modern Germany. Warmer varieties, such as Pinot Noir and Chardonnay are beginning to be planted at Denbies and across southern England. Some optimists already grow Merlot (albeit in poly-tunnels).

More recently Professor Selley has begun to update his earlier work. The latest predictions of temperature increase from the Intergovernmental Panel on Climate Change (IPCC) and the Hadley Centre enable the suitability of different regions of the UK for different grape varieties to be predicted far into the future.

By 2080 the predictions suggest that the London and Hampshire basins will only be suitable for raisins and palm wine. Manchester Merlot and Sheffield Shiraz will be feasible. Most of the Welsh mountains will be warm enough for Chardonnay and Merlot, while Riesling may thrive on the slopes of Snowdonia and the Scottish Highlands.

The north-west shore of Loch Ness will be ideal. The rocks are similar to those of the Cape Province in South Africa. Vines like slopes because they are well drained and south-east facing ones are best because you get the maximum sunshine. The waters of the loch also reflect sunlight up the slope, and radiation bouncing back up to the vineyard is an added bonus for growing conditions.

“These predictions assume, of course, that there will still be some form of civilisation left by 2080. Meanwhile we should all enjoy our liquid assets while we may. Cheers!” concludes Professor Selley.

For more information about Professor Selley’s book, visit [www.winelandsofbritain.co.uk](http://www.winelandsofbritain.co.uk).

# A giant step for UK healthcare



BY ABIGAIL SMITH

A SMALL ROAD LEADING OFF PADDINGTON'S BUSY PRAED STREET might seem an unlikely route to the hub of a healthcare revolution. But South Wharf Road at St Mary's Hospital is now the official address of Britain's first Academic Health Science Centre (AHSC) – a healthcare centre of a kind wholly new to the UK, which aims to radically improve the way scientific breakthroughs are transformed into high quality patient care.

This AHSC will be created from Imperial College Healthcare NHS Trust, which launched on 1 October 2007 following the merger of St Mary's and Hammersmith Hospitals and their integration with Imperial College.

The day was celebrated with a tour of the medical sites making up the Trust by its freshly-appointed management team – Managing Director Mark Davies, Chair Lord Tugendhat and Professor Stephen Smith, who holds the joint position of Principal of Imperial's Faculty of Medicine and Chief Executive of the new Trust.

During the whistle stop tour, which included visits to the Diabetes Clinic at St Mary's and the newly refurbished Accident and Emergency department at Charing Cross, plus a welcome event for new medical students at South Kensington, Professor Smith declared: "We must be good at discoveries and inventions but then we must be positive and quick at introducing these advances into our healthcare system.

"Our bottom line is patient outcomes and we will never lose sight of the most important relationship, between our carers and our patients."

## BUT WHY DOES THE UK NEED AN AHSC?

Professor Smith argues that while Britain is carrying out medical research of an internationally excellent standard, its healthcare system is failing to match up. Citing the historical example of penicillin, which was discovered at St Mary's Hospital by Sir Alexander Fleming but only brought to patients when it was

mass-produced in the USA, he says that UK academic medical research is still not as joined up as it should be.

"We need to create a real partnership between top research universities, the NHS, research councils and industry to ensure patients benefit from the very latest developments in healthcare and medical technology," he says.

"The AHSC creates a healthcare network in which the patient is right at the centre."

## A JOINT LEADER

The AHSC format is already established in other parts of the world, most notably the USA, where it has been shown to deliver substantial improvements in clinical care.

Perhaps the most famous example of the AHSC model is Johns Hopkins Hospital in the USA. Widely regarded as one of the world's best hospitals, it was founded in 1889, shortly after Johns Hopkins University, with the explicit purpose of fully marrying medical practice to medical research and teaching.

The key difference between this, and the approach followed by UK teaching hospitals, is the existence of a single governing team responsible for research, teaching and healthcare. The appointment of a joint leader for Imperial College Healthcare NHS Trust and Imperial's Faculty of Medicine breaks down the artificial divide between the two, ensuring that breakthroughs will be translated much more quickly into treatments.

"This is an internationally recognised model," comments Professor Smith. "It offers a once-in-a-lifetime opportunity to make a sea change to health services in west London, to enable residents to stay healthier, live longer and enjoy a better quality of life."

## TRANSLATING RESEARCH INTO CARE

An example of how an AHSC can facilitate the translation of research into care is provided by Imperial's Paediatric Research

RAJESH HINGOJAN, TOM WHIPPLE



Unit, based at St Mary's. The UK's first centre dedicated solely to paediatric clinical research is run by both College and hospital staff, and is situated right next to the children's ward.

The unit opened in July 2007, before the integration of the hospitals with Imperial, presenting those involved with a series of bureaucratic difficulties to overcome, says its Director, Professor John Warner.

"It's in Imperial College space within a hospital-run building, staffed by both College and St Mary's people, conducting clinical research and therapeutic trials that involve hospital patients," he explains. "It's absolutely vital that it has been set up in this way, but doing so did present some headaches. The beauty of unifying research and care, as will occur in our Academic Health Science Centre, is that the bureaucratic hindrances will be swept away."

#### FASTER IMPLEMENTATION OF NEW MEDICAL TECHNOLOGY

The inauguration of Imperial College Healthcare NHS Trust is the culmination of almost two years of planning, public meetings and consultation with government, hospital and Imperial staff, west London communities and the wider public.

The results of the public consultation, announced in August 2007, showed an overwhelming 75 per cent support amongst staff and the public for the creation of an AHSC in west London. Respondents gave reasons such as improved resource efficiency and the faster implementation of new medical technologies for their positive response.

Those who responded with doubts about the plan cited concerns that funding for patient services could be diverted to research or vice versa, and that research collaborations with pharmaceutical companies could influence the type of care patients receive.

Professor Smith explains that research finances and NHS finances are legally required to be kept separate, meaning that funding cannot be diverted from one to the other.

"The purpose of the consultation process was to enable everyone to have a voice and take part in an open debate about what is a major step in west London's healthcare provision, so I'm pleased that these issues were raised," he adds.

He rejects the idea that industrial partnerships may have a negative impact on care, pointing to the GSK Clinical Imaging Centre at Hammersmith Hospital as an example of what can be achieved through such collaborations.

This new centre, a £50 million collaboration between GSK, Imperial and the Medical Research Council, uses state-of-the-art technology to observe how diseases, such as cancer, develop and how the body responds to the drugs provided to target them. This technology is focused on developing better and earlier therapies, offering the prospect of significantly improved

outcomes for many patients.

"Imperial couldn't have done this alone, Hammersmith Hospital couldn't have done it alone and GSK couldn't have done it alone," Professor Smith says. "It's a model of joined-up working bringing enormous benefits."

#### CHANGING HEALTHCARE DELIVERY IN THE UK

There is no doubt that the creation of an AHSC represents a sea change in the way that healthcare in the UK is delivered, and those involved hope that introducing innovations into the system in west London's newest NHS Trust will make an impact nationwide.

By 2012, the Trust intends to have become one of the top academic health systems in the world, with the vast improvements in patient care and outcomes which that entails. It is an ambitious goal and one that will require a determination at all levels to see innovative research translated quickly into patient-focused applications.

Its attainment will provide the UK with a radically new healthcare centre of excellence that will bring the science of medicine into people's day-to-day lives in a way not seen before in this country.

#### FACTS AND FIGURES

**Imperial College Healthcare NHS Trust serves a local population of 650,000.**

**Its wider population is over 2,800,000 for specialist services.**

**It incorporates five main hospital sites:**

- Charing Cross Hospital
- Hammersmith Hospital
- Queen Charlotte's and Chelsea Hospital
- St Mary's Hospital
- Western Eye Hospital

**Imperial College London accepts over 300 undergraduate medical students each year.**

**Its Graduate School of Life Sciences and Medicine has over 1,500 postgraduate students.**

**Imperial was ranked the fifth best university in the world and seventh in the world for biomedical and life sciences in the 2007 *THES* World University Rankings.**

Keep up-to-date with Imperial College Healthcare NHS Trust at [www.imperial.nhs.uk](http://www.imperial.nhs.uk).

LEADING FIGURES IN THE SCIENTIFIC COMMUNITY DISCUSSED HOW TO IMPROVE AFRICAN HEALTHCARE AT THE AFRICA: HEALTH MATTERS? CONFERENCE IN NOVEMBER.

# Africa: Health matters?

BY ZOË PERKINS



AFRICA IS THE SECOND MOST DENSELY POPULATED CONTINENT in the world; 46 per cent of its inhabitants live in poverty, and the prevalence of HIV among adults has risen higher than was thought possible, exceeding 20 per cent of the population in four southern African countries.

A one-day conference discussing how to improve African healthcare, *Africa: Health Matters?*, was held in November 2007, jointly organised by Imperial College London and the Royal Geographical Society with the Institute of British Geographers. It was chaired by Professor Sir Gordon Conway, President of Royal Geographical Society and Professor in International Development at Imperial, and brought together some of the UK and Africa's leading academics on the subject. Professor Sir Roy Anderson, Rector Elect of Imperial, was among the speakers at the conference, which focused on the social, economic and geographical variations associated with HIV/AIDS, schistosomiasis and malaria, and the healthcare issues surrounding them.

## NEGLECTED TROPICAL DISEASES

Affecting more than 200 million people in developing countries, 85 per cent of them in sub-Saharan Africa, schistosomiasis is a parasitic disease that leads to chronic ill health. As the second most prevalent tropical disease in Africa, after malaria, it is of great public health and socio-economic importance in the developing world. The Schistosomiasis Control Initiative (SCI) at Imperial was established in 2002 to work with ministries of health and education to help combat the disease through research and control activities.

Professor Alan Fenwick, Director of the SCI and Professor of Tropical Parasitology at Imperial, highlighted the issue of schistosomiasis, which causes 280,000 deaths a year, during his discussion entitled *Schistosomiasis and other parasitic diseases in Africa*. He went on to explain how over 500 million people in Africa have one or more infections which cause these Neglected Tropical Diseases, but cannot afford the drugs that exist to combat them.

## A BURGEONING GLOBAL POPULATION

The Commission for Africa, 17 individuals brought together in their personal capacities to generate new ideas and action for a strong and prosperous Africa, highlight in the *Report of the Commission for Africa* that average life expectancy across the continent is just 46, and is actually falling.

Professor Sir David King, then Chief Scientific Advisor to the Government, looked at how increasing life expectancies elsewhere in the world have inevitably led to a burgeoning global population during the conference's closing keynote speech. He said: "Life expectancy around the world has increased dramatically over the years but in Africa all these advantages seen in the rest of the world are still absent."

Expected to reach between 9.5 and 10 billion by the middle of the century, the world's population is proliferating at an incredible rate, which has consequences for water resources, food supplies, energy consumption and the spread of disease.

## WHAT CAN BE DONE TO ADDRESS THESE ISSUES?

Discussing sustainable development, Sir David said: "Human capital is a key factor; investment needs to be made in skills, infrastructure and cultural development. Education right across the board is also vital from primary and secondary school through to higher education."

Sir David also drew attention to the government's Foresight programme. Foresight brings together key people, knowledge and ideas to look beyond normal planning horizons to identify potential opportunities from new science and technologies. An example of this is a recent project on the detection and identification of infectious diseases.

The recent outbreak of Bird Flu, H5N1, was also discussed in his speech. "Here we have in place big preparations in case the disease spreads," explained Sir David, "but what about preparations in Africa?"

He concluded by saying that science and technology were vital for good governance, stability and human capital. "A technically skilled population is a prerequisite for economic sustainability and wellbeing."



Left to right: Professor Sir Roy Anderson, Professor Sir Gordon Conway, Professor Alan Fenwick, Professor Sir David King

# Good advice

BY LIZ GREGSON

Members of the Development Advisory Board and Imperial College staff at the Development Advisory Board meeting on 9 July 2007.

THE COLLEGE'S DEVELOPMENT ADVISORY BOARD WAS established in 2004 to provide independent and objective guidance to the College's Development Office in its aim of broadening Imperial's philanthropic income. The Board is made up of 23 senior, successful and influential individuals who hail from a variety of backgrounds, professions and nations.

Imperial's Director of Development, Fiona Kirk, explains the role of the Board: "Members support the College in a number of ways including introducing the College to potential philanthropic donors, making gifts themselves, and talking to their personal and professional networks about the College's Centenary Campaign. Their support makes a real difference as we work towards our target of raising £207 million of philanthropic funds by 2010."

Imperial is proud to list 10 alumni as Board members.

"I was very pleased to be invited to join the Board and my thoughts went back to 1955 when I came to Imperial, as probably one of the first, if not the very first, Pakistani immigrant to study engineering at the College. It was very exciting to be offered a place at Imperial and the research-based courses in the final year earned me the PhD scholarship and gave me a lifetime of fascination with academic research. It is a privilege now to repay a little of the debt I owe the College."

**HAROON AHMED** (Electrical Engineering 1958)

*Former Master of Corpus Christi College; back row, seventh left*

"I felt privileged to be asked to join such an elite body of powerful individuals who have strong links to the College and who have made major scientific and business contributions all over the world. My particular strength is probably still being closely associated with the grass roots of the College's research base since the successful commercialisation of world class scientific products is still what I do best!"

**PROFESSOR SIR CHRISTOPHER EVANS** (Biology 1979)

*Founder and Chairman of Merlin Biosciences; back row, fourth right*

"In the 1950s Imperial College was considered to be one of the top engineering, physics and chemistry colleges in the world. Over the years it has maintained its competence and expanded into other areas and I am convinced that Imperial today has superior capabilities in numerous areas."

**DR NARINDER SINGH KAPANY** (DIC Physics 1952, PhD 1955)

*Founder of Optics Technology Inc; back row, third left*

"I find my membership of the Board challenging and personally rewarding. I hope that I have contributed some diverse ideas, and more importantly, through my own multi-cultural and global experiences, provided a different approach towards the development of Imperial College."

**MS LOH WAI KIEW** (Aeronautics 1981)

*CEO/Vice President, Global Shell Marine Products; back row, first right*

"Partnerships and external funding for research and teaching initiatives are crucial in today's world. The Board provides an active resource for the College to pursue these. As an engineer who has worked for the last 30 years in the biomedical field, I have been able to support the College's increased strength in medicine and allied engineering. With the advent of the new Academic Health Sciences Centre, I hope to continue to contribute to future developments."

**SIR CHRISTOPHER O'DONNELL** (Mechanical Engineering 1968)

*Former CEO, Smith and Nephew; back row, sixth left*

"I was pleased to be asked to join the Development Advisory Board because it gave me the opportunity to get closer to the Imperial College of today. Imperial is one of the most important centres for research in the UK and my ex-company uses it extensively in joint projects. Much of Rolls-Royce's present success is due to this and of course to the stream of well educated graduates who have come from Imperial over the years. It seemed important to me that this should continue and the opportunity to help the future development and funding of Imperial College represented an interesting and exciting challenge."

**SIR RALPH ROBINS** (Mechanical Engineering 1955)

*Former Chairman of Rolls-Royce plc; back row, fifth left*

"As an alumnus of the College and I felt deeply sentimental and honoured when I was asked to join the Board. The Board brings together international people of high calibre in various specialty fields to brainstorm for the betterment of higher education and especially Imperial College, and its most important function is to set up a long term global network of fundraising for the College."

**PROFESSOR WINSTON WONG** (Physics 1971, MSc 1972, PhD 1976)

*Founding President and CEO of Grace Semiconductor Manufacturing Corporation; back row, second right*

THE START OF THIS ACADEMIC YEAR HAS SEEN THE CREATION OF A NEW DEPARTMENT OF LIFE SCIENCES, WHICH BRINGS TOGETHER UNDER ONE UMBRELLA THE EXISTING DIVISIONS OF BIOLOGY, MOLECULAR BIOSCIENCES, AND CELL AND MOLECULAR BIOLOGY.

# New Department of Life Sciences



BY DANIELLE REEVES

Professor Ian Owens has been appointed Head of the new Department of Life Sciences, leading a management team from the three constituent divisions. The existing divisions will retain their individual identity and many aspects of day-to-day management will stay at the divisional level.

Professor Owens explained that bringing together the three divisions will encourage greater collaboration across the entire spectrum of life sciences: "For big strategic initiatives we need to be able to bring together the best teams from across all three divisions, and I think this new set-up will better facilitate these kind of collaborations, while ensuring that the divisions retain their unique sense of identity and community.

There is some really pioneering work being done in all the divisions and this is an exciting time for life sciences at Imperial."

## DIVISION OF MOLECULAR BIOSCIENCES

Led by Professor Paul Freemont, the Division of Molecular Biosciences focuses on understanding, at the molecular level, how cells function as a system. The Division's work has broad potential applications, including the development of new drugs and therapeutics and new forms of bioenergy.

Professor Freemont said: "Fundamental research in the life sciences provides the scientific basis on which many new technologies are based, including the development and discovery of new drugs. In the twenty-first century life sciences are undergoing a revolution with the increasing availability of genetic information from many different organisms and plants providing the foundations for new research areas like personalised medicine and synthetic biology. In collaboration with physical scientists and engineers, life sciences will undoubtedly lead the way in solving some of mankind's greatest problems in energy, health and the environment."

## DIVISION OF CELL AND MOLECULAR BIOLOGY

Professor Murray Selkirk leads the Division of Cell and Molecular Biology, which focuses on cell biology, with particular interests in neurosciences, the immune system and infectious diseases.

The Division, Professor Selkirk explains, works on fundamental science, which then feeds directly into future clinical research, looking for new treatments, vaccines or drugs for diseases. He said: "Our researchers work to understand the basic biology of pathogens and use models of infection to investigate how they survive and replicate in their hosts. We are working on diseases which are of great concern both here in the UK and in the developing world, including *Clostridium difficile* which is becoming a notorious hospital infection, pathogenic *E. coli*, malaria and other parasites."

## DIVISION OF BIOLOGY

Jointly led by Professor Martin Buck and Professor Owens, the Division of Biology focuses on ecology and evolution, and plant and microbial sciences. The ecology and evolution part of the Division incorporates the Natural Environment Research Council (NERC) Centre for Population Biology, a world leading centre for the study of biodiversity and a wide range of ecological issues.

Professor Buck explains the importance of his division's work, saying: "Not all research in the life sciences is directly about mankind – much of the work carried out by our biologists is all about understanding the broader context of the world in which we live, from the molecular level up to the study of the impact of environmental changes at a global scale. At a time when there are more questions being asked than ever before about the natural environment and our impact on it, the Division's work is vital to further our understanding of these complex relationships."

# Happy 10<sup>th</sup> birthday, Medicine!

Congratulations  
A & E  
+ Charing Cross

BY LAURA GALLAGHER

BETWEEN SEPTEMBER AND DECEMBER 2007, THE FACULTY OF Medicine has held a double celebration to commemorate both the 10-year anniversary of its formation and Imperial's Centenary.

## CHARING CROSS CAMPUS

For a week, Imperial staff and medical students gave visitors to Charing Cross Hospital the opportunity to take part in various medicine-related activities and find out about the research that takes place there. Among many other exhibits, staff from the National Heart and Lung Institute offered passers-by a free test to measure how well their lungs were functioning, and staff from the Department of Primary Care and Social Medicine chatted to visitors about their work and about how a healthy diet and exercise could improve their health. About 150 secondary school students descended onto the campus on 25 September for an event entitled *The science of becoming a doctor*.

They took part in an interactive session with members of the Students' Union, which included stitching prosthetic wounds. Torrential rain did not dampen the enthusiasm of the 175 members of staff who came together for a celebratory barbecue on the afternoon of 26 September. Sheltering in the Reynolds Bar, staff enjoyed food and a slice of birthday cake.

## SOUTH KENSINGTON CAMPUS

Eminent surgeons have been giving keynote lectures as part of the celebrations. Richard Reznick, Professor of Surgery from the University of Toronto, Harold Ellis, Emeritus Professor of Surgery from Imperial, and fellow Imperial Professor of Surgery Lord Darzi were among speakers on 20 September at a Centenary Surgical Symposium.

Professor Lord Robert Winston, fertility expert, gave a lecture on 2 October entitled *Manipulating the human*, and Professor Jeremy Nicholson (Biological Chemistry) led a workshop on metabonomic medicine on 1 to 5 October, entitled *Metabonomic*

*and metabolomic tools in integrative systems biology and medicine*. Metabonomics involves measuring the dynamic metabolic response of living systems to different stimuli or genetic modification.

One of the largest specialty meetings in neonatal medicine took place at the College, with a five-day international meeting entitled *The science of newborn care*. Senior clinicians met to talk about new research and state-of-the-art clinical practice, from 26 to 30 November.

## ROYAL BROMPTON CAMPUS

Nobel laureate Professor Ferid Murad visited the Royal Brompton Campus on 25 September to present his lecture *Discovery of NO and Cyclic GMP and role in drug discovery and development*. Professor Murad is Director Emeritus of the Brown Foundation Institute of Molecular Medicine for the Prevention of Human Diseases and the John S. Dunn Distinguished Chair in Physiology and Medicine.

## ST MARY'S CAMPUS

How it felt to be a practising medic on the front line is the subject of a new book, launched as part of the celebrations. *Doctors at War* is a collection of letters written to the *St Mary's Gazette*, primarily by St Mary's medics, during various conflicts between 1897 and 1945 including the two World Wars.

On the evening of 26 September, an audience, including St Mary's alumni and former staff of the Medical School, was treated to dinner with readings of the letters by current Imperial medical students.

To read more about the events to celebrate the Faculty of Medicine's 10th anniversary, visit [www.imperial.ac.uk/aboutimperial/news](http://www.imperial.ac.uk/aboutimperial/news). You can Lord Winston's lecture online at [www.imperial.ac.uk/aboutimperial/events/onlinelectures](http://www.imperial.ac.uk/aboutimperial/events/onlinelectures).

*THE SCHISTOSOMIASIS CONTROL INITIATIVE (SCI), WHICH ENCOURAGES DEVELOPMENT OF A SUSTAINABLE SCHISTOSOMIASIS CONTROL PROGRAMME IN SUB-SAHARAN AFRICA, WAS AWARDED THE QUEEN'S ANNIVERSARY PRIZE WHICH RECOGNISES AND HONOURS OUTSTANDING ACHIEVEMENT AND EXCELLENCE IN UK UNIVERSITIES AND COLLEGES.*

# Schistosomiasis Control Initiative

BY LAURA GALLAGHER

IN JUST FIVE YEARS, THE SCI HAS ADMINISTERED OVER 43 MILLION treatments for schistosomiasis and soil-transmitted helminths in countries such as Niger and Burkina Faso. The programme estimates that it has cured over 20 million people of these diseases during this time, although regular annual treatments are necessary to keep them free from re-infection.

Professor Joanne Webster, Director of Monitoring and Evaluation for the SCI, shared her feelings on winning the award: "Winning the Queen's Anniversary Prize is a huge honour for the SCI, both in terms of the recognition of the impact of the work we've done and also in terms of allowing us to expand out to future donors and treat more people."

## BUILDING A STRONG FOUNDATIONS

Despite the programme already having proven how effective treatment can be, approximately 200 million people across Africa still need to be treated. Professor Alan Fenwick, Director of the SCI, believes that countries in sub-Saharan Africa will be unable to develop unless children are protected against the Neglected Tropical Diseases (NTDs) that are holding them back. He said: "The word 'foundation' comes to mind. If you're building a house you build it on a strong foundation, if you want to develop Africa then the children of Africa need the foundation of good health, and their good health is actually being compromised by all these parasitic diseases they've got."

He added that people in the West are very aware of the toll taken by diseases like HIV, TB and malaria, and as a result more funding is devoted to tackling these than to fighting NTDs. However, Professor Fenwick and his team argue that NTDs prevent far more children from progressing fully with their lives.

## A PARASITIC BURDEN

Over one billion people across the world are infected with the most common NTDs, which include trachoma, the world's leading cause of preventable blindness; soil-transmitted helminths like hookworm, which cause stunted growth; elephantiasis, an infestation of the lymphatic system which causes terrible deformities; schistosomiasis, which causes liver and kidney damage, and impaired growth and development; and river blindness, which causes skin rash, eye lesions and blindness.

Tackling NTDs is crucial because children are otherwise

malnourished, debilitated and caught in the poverty trap caused by poor health. NTDs prevent people benefiting from available education and being able to work. However, the team behind the SCI's success say that all NTDs could be treated with a 'rapid impact package' costing just 25 pence per person per year, thanks to drugs that are readily donated by pharmaceutical companies.

## SUSTAINABLE PROGRAMMES

"Basic health and education should form the keystones of development, and the health of children across sub-Saharan Africa is really compromised by these diseases. We have children who can't get the education they deserve because they're too ill to attend school, and adults who are unable to work. People in the West don't appreciate how lucky we are not to have a parasitic burden," said Professor Fenwick. He estimates that with an investment of approximately US\$1 billion over seven years, everyone in sub-Saharan Africa could be reached with the drug package, which would then bring all NTDs in the region under control.

Once this coverage had been achieved, a new sustainable programme could be implemented which would only treat children as they entered school and again three years later. These children would then be protected from the serious consequences of NTDs for the rest of their lives.

Find out more about the Schistosomiasis Control Initiative at [www.schisto.org](http://www.schisto.org) or visit [www.imperial.ac.uk/aboutimperial/news](http://www.imperial.ac.uk/aboutimperial/news) to view a RealPlayer film of interviews with Professor Fenwick and his team.



Professor Alan Fenwick, Director of the Schistosomiasis Control Initiative.

STRONG LINKS BETWEEN IMPERIAL AND ASIA WERE CELEBRATED ON 30 DECEMBER 2007 WITH A SPECIAL GRADUATION CEREMONY AT SINGAPORE'S UNIVERSITY CULTURAL CENTRE.

# Celebrating strong links with Asia

BY NAOMI WESTON

THE ONE-OFF EVENT, HELD TO MARK THE CENTENARY YEAR, offered a rare opportunity for students to graduate outside the UK. Fifty-nine graduands attended the Asia Convocation with their guests from around the world who had travelled from countries including Australia, Ghana, Greece, Hong Kong, Indonesia, Malaysia, the Netherlands, Thailand, and the UK. Imperial is currently home to around 2,500 students from countries across Asia.

## SINGAPORE'S HONORARY GRADUATES

Five honorary degrees were awarded during the ceremony. Recognised were key Asian figures who have been judged to be people of conspicuous merit, outstanding in their field or who have given exceptional service to the College. Congratulating the new honorary graduates and commenting on their success, the Rector said: "All are giants in the world of business and use their influence to advance science and technology, by supporting research and generously providing funding for the next generation of students."

### *The Honourable Sir Michael Kadoorie*

Sir Michael is a key figure in Asian business. He is Chairman of CLP Holdings Limited, which provides electricity to 75 per cent of Hong Kong. His family are also well known philanthropists and Sir Michael received a knighthood in 2005 for his charitable work in the UK and overseas.

### *Walter Kwok*

Walter Kwok is Chairman and Chief Executive of Sun Hung Kai Properties, Hong Kong's largest property group. With his brothers, he runs the SHKP Kwoks' Foundation which is committed to cultivating talent and building a strong China. The Foundation is funding postgraduate scholarships at Imperial, where Walter studied civil engineering in the 1970s.

### *Dr Richard Lee*

Dr Richard Lee, Chairman of TAL Apparel, holds a PhD in chemical engineering from Imperial and connections with the College extend across his family. One of Dr Lee's

sons is an electrical engineering graduate, another is a lecturer in condensed matter theory and his cousin is Chairman of the Hong Kong Alumni Association. The Lee Family Scholarships, created in 2003, are helping Chinese postgraduates study at Imperial.

### *Dr The Honourable Sir David Li Kwok-po*

Sir David, who studied mathematics at Imperial, is Chairman and Chief Executive of the Bank of East Asia, the largest independent local bank in Hong Kong. He is a member of the region's Executive and Legislative Councils. Sir David was knighted in 2005 for services to British education. He is Pro-Chancellor of the University of Hong Kong.

### *Philip Yeo*

Philip Yeo has played a key role in building Singapore's economic success across industries including semiconductors, aerospace and speciality chemicals. He is currently Chairman of SPRING Singapore, the Standards, Productivity and Innovation Board, and a special government advisor. In 2006, he was the first Singaporean to receive the Alumni Achievement Award from Harvard Business School.

## TOUR OF ASIA

The ceremony was part of a 10-day tour of Asia by the Rector and other senior figures from the College which included stops in Malaysia, Singapore, Thailand and India. Sir Richard and his team met alumni associations in Asia and explored the progress of research collaborations established between Asian institutions and the College.

The Rector said: "As Imperial's Centenary year draws to a close, I am delighted to be visiting this region, which has a great appetite for science, technology and medicine that we at Imperial share wholeheartedly."

He added that he hoped that the tour would express to Imperial's many Asian students and graduates how much the College appreciates their contributions and he welcomed the opportunity to visit collaborators across Asia, with whom Imperial carries out such exciting and important research.



From left to right: Philip Yeo; Walter Kwok; Dr The Honourable Sir David Li Kwok-Po; Dr Richard Lee; The Honourable Sir Michael Kadoorie.

### Welcome to the Imperial College alumni pages

During the College's Centenary year there has been an explosion of alumni activity around the world. Read more about what our groups and networks, at home and abroad, have been up to and find out what they've got planned for 2008 on the following four pages.

Individually, some of our alumni have been swimming the English Channel and cycling from John O'Groats to Land's End. Read more on pages 28 and 29.

Alumni who have sadly died are listed on page 32 and, finally, honours and awards received by alumni and staff are detailed on page 33. Read on to find out more...

### Charing Cross and Westminster Medical School Alumnus Society

The Charing Cross and Westminster Medical School Alumnus Society Prize in Primary Care Medicine was awarded in 2007 for the third time, on this occasion to Miss Nehal Narayan, a year six student in the Faculty of Medicine, based on her performance in the MBBS finals and her work in the subject during the year. The alumnus society committee hopes to fund a further project for medical students' welfare in the next few months from the alumnus fund.

The contact for alumni of all three former Schools is the Society's Honorary Secretary, Peter Griffiths: [peter.griffiths9@btinternet.com](mailto:peter.griffiths9@btinternet.com).

**PETER GRIFFITHS**  
HONORARY SECRETARY

### Engineering Chapter

#### City and Guilds College Association

Members and friends of City and Guilds College Association (CGCA) were delighted to see the endeavours of a former President recognised in the Queen's birthday honours list. David Hattersley MBE has worked tirelessly for the CGCA (and indeed for a number of other organisations) over many years. He will be known to many through his excellent *Walks with a Past President* programme, which has arranged over 20 professionally guided walks for members and their guests through the most interesting parts of London since 2000.

On 31 October 2007, the Association held a very successful evening reception in the House of Commons, hosted by the Right Honourable John Gummer MP who spoke eloquently on *Education and Climate Change*. In a wide-ranging address, he drew attention to the urgent need for technological innovation to provide radical solutions needed to avert catastrophic global warming, and scientists to provide a clear understanding of the challenges and the related complex scientific and technical arguments. A capacity audience of members and guests enjoyed wine and canapés as well as topical intellectual stimulation.

**PETER GARRATT** (Civil and Environmental Engineering 1968)  
PRESIDENT

### Royal School of Mines Association

The Royal School of Mines (RSM) has changed significantly over recent years, but it remains very much alive, thanks principally to its evergreen, vibrant student body. Their energy and commitment uphold RSM traditions, much valued by RSM alumni. RSM may no longer be the bricks and mortar institution it once was, yet it now stands as a key partner in the Faculty of Engineering and the College. As such, the Royal School of Mines Association (RSMA) committee has enthusiastically supported many of the events that have marked

Imperial's Centenary year, including attendance during Her Majesty The Queen's visit on 9 July, the Rector's Guildhall Lecture and participation in the Sustainability in Global Engineering Forum.

In addition, RSM alumni came together in September 2007 for a departmental reunion hosted by Professor Alan Atkinson, Dean of the Faculty of Engineering, and Professor Martin Blunt, Head of Department of Earth Science and Engineering. This was followed by a step back in time with drinking and singing Mines songs in the Union Bar. Nothing has really changed that much!

The Centenary has provided a valuable opportunity for the RSM to re-engage with its alumni and we hope that many will now feel the desire to get reconnected with the Association, if they have lost touch.

**KURT BUDGE** (MEng Mining Engineering 1992)  
PRESIDENT

### Friends of Imperial College

Sir Richard Sykes spoke about the future of the College, now an independent university, to a sell-out crowd at the Friends' summer party in July 2007 held to celebrate the College's Centenary. The party was supported by Winton Capital Management Ltd and attended by Chief Executive Officer David Harding and a number of staff. The party also saw the launch of the Friends' 2007-08 event programme. The first event, a talk by Professor David Edgerton about the technologies that shaped the twentieth century took place on 27 September 2007 and was well attended, as was Professor Russell Cowburn's exciting overview of nanotechnology on 31 October.



On 5 February 2008, Lewis Wolpert (Civil and Environmental Engineering 1955), Professor of Biology as Applied to Medicine at University College London, will be talking about the biology of belief. Are humans programmed to believe? If so, what evolutionary benefit does belief provide?

Professor Stefan Szymanski, Professor of Economics at Tanaka Business School, will speak on the subject of How Americans play baseball and the rest of the world plays soccer on 13 March. An exciting speaker, he is often heard on the radio talking about the business of sport and will no doubt be giving an update on the latest news from the soccer front.

A behind-the-scenes visit to the new Energy Futures Laboratory with its Director, Professor Nigel Brandon, is planned for 7 May, and a further behind-the-scenes visit will take place on 10 June to the

Institute of Mathematical Science. Our summer party at 170 Queen's Gate is scheduled for 2 July 2008. If you would like to come along to our events you will be very welcome. See details on our website at [www.friendsofimperial.org.uk](http://www.friendsofimperial.org.uk).



One final piece of news, Friends of Imperial College contributed £1,500 to the Student Opportunities Fund for the year 2006–07.

**RODERICK RHYS JONES** (Civil Engineering 1964)  
CHAIRMAN

## Imperial College School of Medicine Alumni

As a relatively new part of the College, the School of Medicine has had its own graduates for only four years. However, we are building up our Association in close cooperation with the Office of Alumni and Development.

In many ways the most important event of our year is the Affirmation Ceremony, initiated by the Imperial College School of Medicine Students' Union about six years ago. The main motivating factor was a wish to affirm an updated version of the Hippocratic oath, which at that time was not included in the graduation ceremony in the Royal Albert Hall. Now it is, but Affirmation continues as a very well-attended informal event for students – and parents – in late July, just before serious work starts for the new doctors. Work commitments mean that some cannot attend the October ceremony anyway. It is also an opportunity to get enthusiastic graduates to sign up for the Association, with some tactful persuasion.

We are hoping to initiate an alumni dinner soon and invite former students to social events such as the Faculty's Summer Ball. This takes place on the day finals results are announced and is, as one would expect, a quiet and sedate occasion.

**MICHAEL SCHACHTER**  
PRESIDENT

## Royal College of Science Association

The new academic year got off to a gentle start with the presentation, on Commemoration Day, of the Royal College of Science Association Prize jointly to two deserving students, Miss Melissa Daly from the Department of Physics and Ms Florencia Tettamanti from the Department of Mathematics. Both students received such high commendation that it was impossible to choose between them.

In order to strengthen links with current students we will be holding a joint dinner to coincide with the Science Challenge awards, an event which goes from strength to strength.

Our main thrust this year will be to raise the profile of scientific method, and encourage students and the public to think critically and seek facts to back claims made in the media. We look forward to having your support in this endeavour.

**JOHN SANDERSON** (Physics 1962)  
PRESIDENT

## St Mary's Hospital Association

The Association continues to thrive, with its main interest being the welfare of students. In addition to the six scholarships we have provided for many years, we now offer prizes for three outstanding first years. The drama scholarship is into its second year and has proved extremely popular. Our football scholarship includes an invitation for the successful applicant to spend the day with Arsenal Football Club learning how to coach. We are extremely grateful to Dr Ian Beasley of Arsenal Football Club for arranging this.

We have given financial help to as many student clubs as we can over the year. This includes the rugby, golf, ladies hockey and waterpolo clubs, as well as the Light Opera Society. We have helped to fund a new boat for the Boat Club to be called the St Mary's Hospital Association, and have helped relaunch the Athletics Club. The demise of this club has been a great oversight and it is hard to believe that St Mary's Hospital has not had an Athletics Club for a number of years. We thank Barry Paraskeva for being the driving force behind this.

In addition to all this we have continued to support the Student Union President's sabbatical year, the student electives and *The Gazette*. It is a lot to fund out of our robust but modest resources. We badly need new members! Information can be obtained from David James via the switchboard at St Mary's on + 44 (0)20 7886 6666, or from our administrator, Patricia Dymond, at [marys.assoc@btinternet.com](mailto:marys.assoc@btinternet.com).

**DAVID HUNT**  
CHAIRMAN

## Tanaka Business School

The Alumni Advisory Board has launched a nomination this year, so that a third of its membership is renewed every year. A new termly social has been successfully initiated in London. Our regional networks continue to organise their own events as well as support the Business School at MBA fairs and the Executive MBA study tours, which this year took place in China.

Take your career further with a postgraduate programme at Tanaka Business School; we offer a range of programmes reflecting industry's needs to benefit both graduates and their employers. These include the Imperial MBA (full-time and Executive), Distance Learning MBA, Doctoral programme, MSc Finance, MSc Risk Management and Financial Engineering, MSc Actuarial Finance, MSc Management, MSc International Health Management. Building on Imperial's reputation for excellence, the Business School offers world class teaching in a dynamic and supportive environment. For more information, and the full list of dates of forthcoming information sessions, please visit [www.imperial.ac.uk/tanaka](http://www.imperial.ac.uk/tanaka) or email [globalexcellence@imperial.ac.uk](mailto:globalexcellence@imperial.ac.uk).

You can read more about exciting initiatives at the Business School, including the launch of the Rajiv Gandhi Centre for Innovation and Entrepreneurship, on page 10.

**NICOLA POGSON AND SANDRA MA**  
TANAKA ALUMNI RELATIONS TEAM

## alumni news\_networks and groups

### International networks and groups

Imperial has an active alumni network of over 80,000 in more than 180 countries worldwide and alumni groups in many countries around the world. Many of these groups have a strong membership base, and organise a range of academic, professional and social events.

To find out if there is a group near you visit [www.imperial.ac.uk/alumni/international](http://www.imperial.ac.uk/alumni/international). If a local group has not already been established, we can help you get together with other Imperial College alumni in the area by becoming an individual contact for your region, or we can help you to set up a new group. Please contact the Alumni Relations team at [alumni@imperial.ac.uk](mailto:alumni@imperial.ac.uk) or on +44 (0)20 7594 6131.

#### AUSTRALIA

### RSMA Sydney Reunion

We are planning another reunion in Sydney for Friday 28 March 2008, the week after Easter. It will be a casual midday bistro function at the *Phillips Foote* in the Sydney Rocks area, similar to those held in the past two years. So please reserve the date in your diary. We look forward to catching up with old friends. For details or bookings, contact Ron Butler at [rbutler@acenet.com.au](mailto:rbutler@acenet.com.au) or on +61 (0)2 4862 2352.

**RON BUTLER** (Materials 1952)  
REPRESENTATIVE

#### CANADA

### Ontario Alumni Association

We have an informal lunchtime get-together at 12.00 on the last Friday of every month, held at the *Jason George Pub*, 100 Front Street East, Toronto. It is a gathering principally of people related to the mining industry. However, it also serves as a general, informal alumni pub lunch and is usually well attended.

In the autumn, Imperial College Exiles North America East is holding its annual weekend gathering, which is typically attended by those from eastern Canada and the north-eastern United States. This is normally exclusive to Imperial College alumni i.e. no riff-raff from the mining industry as we have on the monthly last Fridays.

**HARRY BURGESS** (Earth Science and Engineering 1968)  
REPRESENTATIVE

#### CAYMAN ISLANDS

### Cayman Islands Alumni Association

The Cayman Islands Alumni group continues to meet with King's College alumni as they have so many lawyers and accountants here to manage all the hedge fund money; a few trillion dollars or so! This time we had a delightful evening at *Papagallo's Restaurant* surrounded by parrots (no, not the lawyers!).



From Imperial, Christina Rowlandson (MSc Health Management 2001) arranged the dinner, attended by Sammy Adams (Mathematics 1996), who has recently become Sammy Murphy; Stephen Price (MBA 1999); Juliette Rea (MBA 2004), who has recently become Mrs Stephen Price thus combining two of our small group into one unit; Stephen Sewell (Physics 1977) and myself. Our small, but vocal, group more than held our own with a jovial King's crowd.

**PETER CUNNINGHAM** (Physics 1964)  
REPRESENTATIVE



#### CHINA

### Imperial College Alumni Association of China – Shenzhen



The first Imperial College Alumni Association of China – Shenzhen event was a founding cocktail party held on the 25 September 2007 in the Shenzhen InterContinental Hotel. It brought in alumni from south China and Hong Kong, as well as friends from other UK universities, event sponsors and like-minded people.

Our honorary guest Professor Dot Griffiths, Deputy Principal of Tanaka Business School, gave a speech reviewing 100 years of Imperial's history and the College's prospects for the future. At the event, we announced our commitment to connect alumni to Imperial and each other, to help alumni advance their careers and delivered a blueprint for the Association's future activities. Photos taken at the event can be viewed on the Association's website at [www.imperialalumni.cn](http://www.imperialalumni.cn).

We received great feedback from Professor Griffiths, as well as alumni and their friends who expressed their interest in





participating in the Association's future activities and events.

With such a successful start and the enthusiasm of alumni and friends, we anticipate a promising future for the Association.

**LING YING** (MBA 2005)  
CHAIRPERSON

### JAPAN

## South Kensington Kai

The South Kensington Kai (SKK) held its Annual General Meeting and party on 17 November 2007 at the British Embassy in Tokyo. Professor Masato Tanaka (Mechanical Engineering 1976), President of the SKK for nine years, chaired the meeting which covered activities and financial reports since the previous meeting in November 2006. Professor Tanaka retired from his presidential position and Professor Shunichi Nakamura (PhD Civil and Environmental Engineering 1987) was elected as the new President.



After the meeting, Chris Pook (Biochemistry 1992), Counsellor at the British Embassy, delivered a special lecture entitled *150 years of science and innovation*. His interesting talk covered the history of technological relations between the UK and Japan since diplomatic relations commenced in 1858, as well as recent innovations taking place in the UK. He summarised his talk proposing tighter communications between the UK and Japan in the future.

Mr and Mrs Pook later hosted a party at their residence in the embassy, which was attended by 40 alumni and their guests, who enjoyed British wine and shared memories from their time at the College.

**HITOSHI HAMAGUCHI** (Mechanical Engineering 1976)  
VICE PRESIDENT

### LEBANON

## Imperial College alumni in Lebanon

Imperial College alumni are holding some events in conjunction with British Lebanese Business Group (BLBG), which exists to promote trade as well as hosting regular networking and briefing meetings in Beirut with high profile speakers. To join these monthly meetings, please contact the BLBG through its website at [www.blbg.org](http://www.blbg.org) or via alumnus Ramy El-Khoury at [ramy.elkhoury@rafikelkhoury.com](mailto:ramy.elkhoury@rafikelkhoury.com).

**RAMY EL-KHOURY** (Civil and Environmental Engineering 1992, MSc 1993)  
REPRESENTATIVE

### SINGAPORE

## Imperial College Alumni Association of Singapore

Our Centenary reception, held on 8 August 2007, was attended by Imperial Ambassador Professor Dame Julia Higgins, Principal of the Faculty of Engineering. She gave a general update on College news and the Centenary, followed by a presentation of her research entitled *Growing Interactions: From Individuals to Systems in my Research at Imperial College London*.

Our MBA talks series has continued through the second half of this year, and with the University of Manchester Alumni Association of Singapore, we kicked off a joint talk series on *Wellness* in May. Already six talks have been given on subjects from hydrotherapy to improving eyesight.

On 18 August 2007, the Awards Committee met to conduct interviews with nominees for the Most Outstanding Student Award (MOSA) and the Association's bursary, which was awarded for the first time. MOSA was won by Wong Chong Wai and the bursary was awarded to Lu Jiaxun.

Each year, the Association partners with the Ministry of Education and the World Scientific Publishing Company to select the best Junior College science student in Singapore. The winner, Amelia Chang, was announced at the Centenary Gala Dinner on 30 November 2007.

Our Dragon Boat Team participated in the Singapore Dragon Boat Festival in late June, unfortunately losing in a photo finish.

The AGM was held on 18 September 2007, accompanied by a buffet dinner and followed by a karaoke session. We wish to thank those members who have stepped down for their past contributions to the Association; they are Kan Wei Jin, Lim Zhisheng and Zhang Weihan.

**LEE HING-YAN** (Computing 1981, MSc 1982)  
PRESIDENT



## New alumni groups

Two new alumni groups have been formed in Bahrain and Pakistan, with the aim of providing alumni with a platform for social and professional networking, giving you the opportunity to meet, exchange ideas, build on business networks and keep in touch with your alma mater.

If you are interested and would like to join either of these groups, please contact Zeba Salman at [z.salman@imperial.ac.uk](mailto:z.salman@imperial.ac.uk).

# Imperial's International Ambassadors

In the 15 months since it was launched, the Imperial Ambassadors scheme has proved a great success. World-renowned academics from across the College have visited nearly 20 international alumni groups, helping keep them up to date with Imperial's latest academic and strategic developments.

The scheme, which matches the regular travel plans of senior College academics and representatives travelling overseas as expert speakers, to international alumni groups in the regions they are visiting, has allowed events to be arranged that help overseas alumni remain connected with Imperial and hear the latest information about its activities.

For the College's Ambassadors, the scheme has provided a means of meeting former students around the world and of building wider networks, both institutionally and individually.

The end of 2007 sees 23 College staff signed up as International Ambassadors. Two Ambassadors left during the year but three new people were welcomed in their place. Professor Sir Leszek Borysiewicz, the former Deputy Rector, left Imperial in September 2007 to take up a new appointment as Chief Executive of the UK's Medical Research Council. He made the first Centenary year Ambassador's trip to Uganda, combining his visit to the College's international health research programmes in neglected tropical diseases, HIV and the control of schistosomiasis with an alumni event that attracted over 50 attendees.

Dr Tidu Maini, formerly Pro Rector for Development and Corporate Affairs, left the College in October 2007, when he embarked upon a new role as Scientific Advisor to the Qatar Foundation. Dr Maini remains involved with the College as Pro Rector Emeritus and has continued to act as Ambassador Emeritus, travelling a total of 18,410 miles in the course of his 2007 Ambassador visits.

We wish both Sir Leszek and Dr Maini well in their new roles, and thank them for their dedicated efforts as Ambassadors. In their place, we welcome new Ambassadors Professor John Wood, who took up the role of Principal of the Faculty of Engineering in September, and Professor Nagy Habib, who became Pro Rector for Commercial Affairs in October. We look forward to working with them both on future Ambassador visits.

In addition, Cavaliere Professor Sandro Macchietto, Professor of Process Systems Engineering in the Department of Chemical Engineering and Chemical Technology, became a new Ambassador in May 2007, when he undertook attended a Centenary alumni weekend in Bonn, Germany with Professor Mary Ritter. Professor Macchietto's talk, *A Great Deal of Imperial Energy*, even inspired members of the alumni group to sign up to his MSc programme!

Among the highlights of the second half of the year was a Centenary tour of Asia, which took place towards the end of 2007 and saw several Ambassadors visit four different countries and take part in a series of events for alumni and other College associates. The trip included a Convocation ceremony in

Singapore, at which alumni from around Asia graduated before their family and friends, and gala dinners in Malaysia, Singapore, Thailand and India, as well as several seminars and talks.

Another event that involved several International Ambassadors was the College's two-day Centenary meeting and Gala Dinner in Cambridge, Massachusetts. Ambassadors Sir Richard Sykes, Dr Tidu Maini, Professor Mary Ritter, along with Faculty Principals Professor Sir Peter Knight and Professor Stephen Smith, and Graduate School of Engineering and Physical Sciences Director Richard Kitney, were joined by other academics from Imperial and Massachusetts Institute of Technology, delivering seminars on healthcare, the environment and energy to gathered north American alumni and academics.

The facts and figures prove that 2007 has been a great year for the Imperial College International Ambassadors scheme. During the year, Ambassadors have taken part in 28 events involving 18 alumni groups in 14 countries around the world, taking advantage of over 140,000 business miles travelled by College representatives. Around 2,000 Imperial alumni around the world attended an Ambassador event; the vast majority in Asia, but also in Australia, Europe, Africa and the Americas. Perhaps more importantly, Ambassador visits have helped to re-energise or even start up alumni activities in Australia, India, Argentina, Uganda and Thailand.

According to Bill MacMillan (PhD Chemical Engineering 1962) of the New South Wales Alumni Association: "The group would have remained moribund and on the point of extinction without Professor Mary Ritter's visit in August. It was a real shot in the arm for us and let's hope there will be many more similar opportunities."

The first Ambassador event of 2008 is Professor John Burland's visit to the Imperial College Alumni Association of Hong Kong, where he will talk about his role in helping to save the Leaning Tower of Pisa from leaning too far. We hope that this will be followed by many more trips as the year progresses and look forward to working with even more of our international alumni groups to help them host their own Ambassador events.

Visit [www.imperial.ac.uk/alumni/ambassadors](http://www.imperial.ac.uk/alumni/ambassadors) for further details and to check for events in your region.



# Imperial College London

Imperial's new website went live on 10 December 2007, bringing a fresh look and an improved structure to the College's online presence.



The Web Redesign and Information Architecture project was established in summer 2006 with the aims of modernising the design of Imperial's website and making it easier for users to find information.

User research played an important part in developing the new site. Project Manager, Pamela Michael explains: "Prospective students want to understand what Imperial has to offer – where they might live and what facilities are available – and to hear about the experiences of current students. Alumni want to see how Imperial has developed since their student days."

A helpful video tour of the new site, can be viewed at [www.imperial.ac.uk/webredesign](http://www.imperial.ac.uk/webredesign).

The project team would welcome comments from alumni. Email [webredesign@imperial.ac.uk](mailto:webredesign@imperial.ac.uk).

In response to this feedback, the new website sees Imperial's podcasts brought to the top level, videos and photos featured on a new page, Campus Life, and current construction projects showcased. The main area of the new homepage highlights key aspects of College life and changes on a regular basis. One month it might show particular research achievements, during another it might focus on Imperial's international students.

# Imperial College London

## The alumni website is changing!

Following the redesign of the College website, the alumni website has followed suit, and has a great new look. But we're not stopping there, over the coming months the alumni website will be relaunched with a revised site structure and enhanced interactive functionality.



The relaunch has two main aims:

- to make it easier for visitors to navigate around the site,
- to upgrade existing interactive services to provide an enhanced online community that connects you to other Imperial graduates and the College itself.

To see updates on progress of the site redevelopment please visit [www.imperial.ac.uk/alumni/newwebsite](http://www.imperial.ac.uk/alumni/newwebsite) or if you are interested in helping us to develop the website, sign up to become an alumni website tester at [www.imperial.ac.uk/alumni/webtester](http://www.imperial.ac.uk/alumni/webtester).

To sign up for your personal interactive alumni services account to access existing and future online services, visit [www.imperial.ac.uk/alumni/register](http://www.imperial.ac.uk/alumni/register).

# alumni focus

## Pedalling for Imperial

After cycling more than 900 miles from John O'Groats to Land's End, former Imperial College Union President John Collins (MEng Civil and Environmental Engineering 2006) has raised more than £2,000 for Imperial College.

Back in June, John began cycling the world famous route to raise money for the Union redevelopment. Unfortunately, just six miles in, John suffered an accident which left him with a fractured wrist and rendered him unable to continue.

Just three months on however, John was fighting fit again. He set off from John O'Groats on Saturday 8 September 2007 and completed the 928-mile course just 13 days later. John said: "The journey had many ups and downs. It was probably the most demanding physical challenge I have ever undertaken."

The Imperial College Union Building Fund is providing the Beit Quad with its first renovations since the 1950s. "I think it's really important for students to be proactive when it comes to this project," said John. "The Union building is a great asset to the College and I believe students should be taking the lead in assisting its redevelopment. I hope that this exercise has encouraged students

to give and support this exciting project."

John's challenge began in John O'Groats, taking him through the picturesque Scottish Highlands as he made his southbound descent. On day six John crossed the English border and continued through Cumbria and the Lake District. Days seven and eight saw John passing through a variety of northern towns, from Morecambe to Preston and Wigan to Whitchurch, before arriving in Shropshire and marking the halfway point of his journey.

The final few days took John through Gloucester and along the Severn Valley. He eventually arrived in Bristol before continuing forward to Devon. The penultimate day's cycling John described as "the hardest day of the entire journey". Faced with a series of gruelling Cornish roads and a 20-mile per hour south-westerly wind to contend with, John was left feeling exhausted: "I found myself having to cycle just to keep going downhill at times."

John reached his destination on day 13 and crossed the line into Land's End. "I feel enormously privileged to have enjoyed a front row view of Britain's landscapes, cities and people," he said. "I hope this journey has helped to raise the profile of the cause it was made in aid of."

You can find out more about John's cycling expedition by visiting [www.johncollins.org.uk](http://www.johncollins.org.uk). It's not too late to sponsor John's effort, if you would like to make a donation, please visit [www.justgiving.com/pedalingforimperial](http://www.justgiving.com/pedalingforimperial).



## Theses, fieldtrips and romance

The Alumni Reunion 2007 proved an opportune occasion for Nigel Kelland and his wife Julia to return to the place where they met and fell in love over 40 years before. Although the laboratories and offices where their romance first blossomed had changed considerably in the intervening years, a weekend on campus was enough to bring the fond memories flooding back!

Nigel arrived at Imperial in 1962 as a DIC student in the Department of Applied Geophysics, and stayed on to complete an MSc. As this was before the discovery of North Sea hydrocarbon reserves, he was the only student from the UK, with others coming from Italy, Germany, Pakistan, Iraq, Turkey and Ireland, some of whom Nigel still hears from.

Nigel explains: "It was a particularly interesting time to be studying in the Department, with research being carried out in support of the channel tunnel investigation under Professor

Bruckshaw, and pioneering magnetic mapping by Professor Mason that played a crucial role in validating the evolving theory of Continental Drift.

"The class was a close-knit group with strong friendships, which tend to develop on courses that involve frequent field trips," he continues. "During one such trip to Porthleven in Cornwall, I particularly remember seven-figure log tables for the surveying calculations and my Italian friend's fascination by the huge tidal movements that he had never witnessed in the bay of Naples!"

Nigel completed his MSc, sitting the final examinations in early 1965 following long hours of exam revision and thesis writing. But field trips and study were not the only activities that kept Nigel occupied during his time at the College.

He explains: "Some months after the start of my DIC course a young lady, Julia Childs, joined the Department, first working as a technician for Professor Mason, eventually becoming the departmental secretary. She was in strong demand by PhD and MSc students throughout the RSM for both typing and printing theses, and preparing the associated maps and figures.

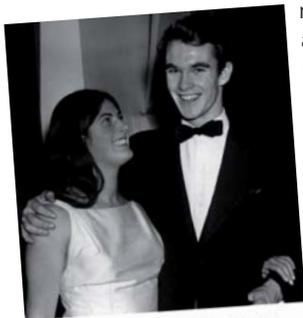
"As the only available young lady in the RSM, Julia was in even stronger demand as a female partner at dances and visits to the theatre and cinema."

Matters came to a head at the annual RSM Christmas Ball, when Nigel, elected as President of the Geophysics Society, considered it his prerogative to be accompanied to the event by the Department's star attraction! He smiles: "That was it; romance quickly blossomed, and we were married in January 1967 at a ceremony attended by a large contingent of RSM students!"

Although finding the lectures very interesting, meeting old friends, making new ones and climbing the Queen's Tower, the highlight of Nigel and Julia's reunion was visiting the now open-plan top floor of the RSM, where the Department of Geophysics used to be. Nigel says: "Julia was only able to determine which window she sat by after checking the position of the Albert Hall! It was also nice to see the effort that has been made to preserve the external structure and staircases of the RSM building."



EMMA BOWKETT



Royal School of Mines Ball

## If at first you don't succeed

Taking anywhere between seven and 27 hours, swimming the 21 miles across the English Channel is considered by many to be the ultimate long distance swimming challenge. With the water temperature ranging from 14 to 18 degrees Celsius during the swim season; variable conditions, up to wind force six and wave heights in excess of two metres; and the traffic in one of the world's busiest shipping lanes, it is a unique and demanding swim. It's a swim that Jim Boucher (Electrical Engineering 1984) attempted twice, in support of Great Ormond Street Hospital Children's Charity.

Jim's first attempt to swim across the Channel on 10 July 2007 was hampered by worse than expected weather, poor feeding and a consequential lack of energy, and was called off after nine and a half hours. Disappointed, but not to be discouraged, Jim said: "It just wasn't my day that day and, determined to do myself and all my kind sponsors justice, I took up a chance to repeat the attempt."

On 11 August 2007 near Shakespeare's Cliff, between Folkestone and Dover, Jim climbed back into the cold Channel water. All of the shortcomings on the first attempt had been addressed and confidence was very high. "This time the weather was better, the sea calm and the water warmer," Jim explained, "That may have made it easier but it was by no means easy; firstly as I swam all through the night and then the tides took me on a merry lunchtime dance along the coast of France."

Fifteen hours and 28 minutes later he stumbled on to Cap Blanc Nez, between Boulogne and Calais in France. As he did so, he joined that exclusive club of around 1,000 other swimmers who have also completed the solo swim.



No stranger to the Channel, Jim's solo swim was inspired by a relay across the Channel with five other swimmers as the *Lido Legends* in August 2005. His long preparation for the swim involved five days in the Mediterranean in May, which replicated the expected summer water temperature in the Channel, during which Jim undertook a series of one-and-a-half to three-hour sea swims, leading up to a six-hour swim in a bay flanked by the legendary Fungus Rock, which qualified him for the solo swim across the Channel.

In the run up to the swim season, 80 Channel hopefuls were converging on Dover harbour each weekend for their final phase of training, eventually undertaking swims of up to seven hours, both days, each weekend. The temperature for the early swims was only reaching 12 degrees Celsius on a sunny day, but this was all part of the mental and physical toughening needed for the crossing. Jim's heavy training schedule, both in the pool and harbour, totalled 25 kilometres each week and necessitated an intake of 6,000 calories of food per day.

# media mentions

## Health and Safety Chair announced

In July 2007, the Secretary of State for Work and Pensions announced the appointment of Judith Hackitt CBE (Chemical Engineering 1975) as the next Chair of the Health and Safety Commission in succession to Sir Bill Callaghan, who retired from the role on 30 September 2007. Ms Hackitt came to the post, which runs for a term of five years, from the Chemistry for Europe project with the European Chemical Industry Council in Brussels, where she was Director.

In making the announcement, the Secretary of State, Peter Hain, said: "I am delighted to announce Judith Hackitt's appointment as Sir Bill's successor. Her extensive industrial experience, particularly in the field of health and safety, will be an enormous asset in her undertaking the complex and demanding role of Chair of the Commission."

Judith Hackitt said: "I am very pleased to be rejoining the Commission as its Chair. I recognise the enormous challenges of improving still further health and safety in our workplaces, and I look forward to working with all the members of the Commission, the staff of the Health and Safety Executive and with Local Authorities to take this critically important work forward."

**Source: Bloomberg, 10 July 2007**

## Taking the helm

Rear Admiral (one star) Chew Men Leong (Electrical Engineering 1990), became the new Chief of the Republic of Singapore Navy in August 2007, at the age of 39. He now holds the position of Chief of Staff (Naval Staff).

Rear Admiral Chew joined the Singapore Armed Forces in December 1985. In the course of his military career, he has headed the Naval Operations Department and was Fleet Commander, among other positions. In this role he played a pivotal role in restructuring the fleet to enhance its operational readiness and ability to respond to peacetime contingencies.

The top navy student in his Singapore Command and Staff Course cohort, he successfully led the fleet in many exercises with foreign navies.

**Source: The Straits Times, 28 July 2007**

## New President for Philadelphia University

Dr Stephen Spinelli Jr (PhD Tanaka Business School 1994) became President of Philadelphia University on 1 September 2007. Dr Spinelli, previously Vice Provost for Entrepreneurship and Global Management at Babson College, Massachusetts, succeeded Dr James P. Gallagher, one of the US's longest-serving university presidents, who had been in the role since 1984.

Elizabeth H. Gemmill, Chair of Philadelphia University's Board of Trustees welcomed Dr Spinelli's appointment, saying: "We were

impressed with his commitment to higher education, his experience in entrepreneurship and global business, his appreciation for, and understanding of, the particular mission of Philadelphia University and his vision for the future."

Dr Spinelli said he was honoured to accept the presidency of such a progressive and dynamic institution. "This is a very exciting time to join Philadelphia University, which encompasses a rich tradition and also holds tremendous opportunity for the future," he added.

Dr Spinelli had previously been Associate Professor, Chair of Entrepreneurship and Director of the Arthur M. Blank Center for Entrepreneurship. Previously, he co-founded Jiffy Lube International and was Chairman and CEO of the American Oil Change Corporation.

**Source: Philadelphia Times, 10 July 2007**

## Tongue sucker scoops award

On 24 August 2007, a team of young British designers won one of the world's most prestigious design awards for a life-saving device christened the 'tongue sucker'.

The €100,000 INDEX: Work award was collected by Philip Greer, Graeme Davies, Chris Huntley and Lisa Stroux (all Industrial Design Engineering 2006, a joint course with the Royal College of Art) at the INDEX: awards ceremony in Copenhagen, Denmark.

Their invention is a tool that can be used in emergencies by paramedics and people who do not have first aid training. The small plastic chamber has a bulb-shaped air reservoir and is used to open the airway of an unconscious person. When the reservoir is pressed, the tongue is sucked into a vacuum, preventing it from blocking the trachea and decreasing the chances of death by suffocation.

The team says it designed the tongue sucker following the 2005 London bombings, when the emergency services had to cope with an unprecedented number of casualties. They hope that winning the prize will enable the device to become a regular component of every first aid box.

**Source: The Guardian, 24 August 2007**

## Battling the IT big boys

IT consultant Dr Graham Oakes (PhD Geology 1988) is taking on the might of Deloitte and of McKesson, one of the biggest IT services names in the UK, hoping that his IT consultancy, Graham Oakes Ltd, will be named IT Consultancy of the Year.

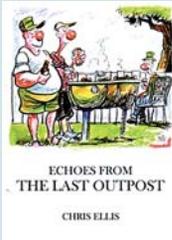
Graham, who runs the Northwich-based IT business with his wife Caroline, is relishing the challenge of going up against the big boys. He says: "To run a good IT consultancy, all you need is a couple of first class consultants who are working on the project from start to finish and therefore offer an exceptional personal service."

The IT Consultancy Organisation of the Year award is part of the Organisational Excellence Awards.

Graham consolidated his interest in computing when studying for his PhD at Imperial, where he worked on ways to process satellite imagery for geological interpretation.

**Source: Manchester Evening News, 6 November 2007**

# books



## Echoes from the Last Outpost

Professor Chris Ellis (Charing Cross Hospital Medical School 1967)  
*Brevitas Publishers*

In these stories, you will read about horse psychology, the KwaZulu Natal braai vleis, how to talk to your compost heap and about a rugby match between the Michaelhouse sixth team and Maritzburg College eighth team, which had,

for some reason, never before been reported in the annals of South African rugby until it was published in the *Witness*, in which many of the stories previously appeared.

## Doctors at War

Dr Oscar Craig and Dr Alasdair Fraser (St Mary's Hospital Medical School 1953)  
*The Memoir Club*

*Doctors at War* is a series of letters and editorials that take the reader on a journey through the nineteenth and twentieth centuries. Compiled through hard work and diligent research into the archives held at St Mary's Hospital Medical School, they supply an intriguing, interesting and sometimes horrifying record of the war experiences of doctors.

With a chronological approach, from the end of the nineteenth century and the Benin expedition of 1897, through both world wars and various conflicts in between, the book gives a picture of a changing social climate.

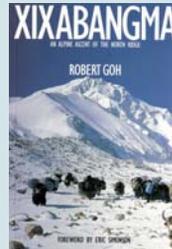


## Household Exercises and Hand Shiatsu

Dr Norman Fraser (PhD Biology 1952)  
*The Book Guild*

This is a comprehensive programme of exercises to perform at home, many of which can be done while sitting in your favourite armchair. First, learn the exercises, designed to tone and strengthen every important muscle in your body. They will

give you flexible, powerful facial muscles, especially around the eyes; and strong, supple feet, with forceful blood circulation right to the toes. Then take the opportunity to progress to the art of hand shiatsu, a simple but highly effective technique to relieve aches and pains in the hands and arms. Every exercise is clearly explained and illustrated, making it easy to choose the right exercise plan to suit your needs.



## Xixabangma: An alpine ascent of the North ridge

Dr Robert Goh (Aeronautics 1991, PhD 1994)  
*Epigram*

Coming from an island state without a climbing culture, Robert Goh has emerged as the finest mountaineer in South East Asia. Instead of guided, commercial climbing, he prefers to face the uncertainties of unguided expeditions to

Himalayan mountains. This is the story of how he led a Singaporean team to climb Mount Xixabangma's northern route in alpine style – without fixed ropes and pre-fixed camps. The planning, organisation and execution are all here in details.

Mountaineer Sir Doug Scott comments: "Robert Goh has written a refreshing and exciting account of climbing high with his Singapore friends. Every mountaineer and aspirant mountaineer should read this book, especially those from Asia. Here are mature reflections upon the light and pure alpine style of climbing big mountains."

## Outsourcing to India: A Legal Handbook

Bharat Vagadia (MBA 2003)  
*Springer*

When contracts transcend national boundaries, the national legal regime of any single country becomes inadequate and the rules of international law come into play. Companies outsourcing to India must recognise that, despite the benefits offered by outsourcing abroad, real risks exist. Allocating such risks through a well-constructed contract is a crucial step in minimising them. The structure of an outsourcing agreement is a key issue because it embodies the rights, remedies, duties and obligations of the parties and provides a blueprint for the parties' relationship.

Further details of each of the books listed on this page, along with other books by alumni, can be found on the alumni website at [www.imperial.ac.uk/alumni/books](http://www.imperial.ac.uk/alumni/books).

If you would like to submit details of a book for a future issue of *Imperial Matters*, please email [matters@imperial.ac.uk](mailto:matters@imperial.ac.uk) or write to *Imperial Matters*, Office of Alumni and Development, Imperial College London, South Kensington Campus, London SW7 2AZ.

# in memoriam

It is with regret that we announce the death of the following alumni of Imperial College and the constituent medical schools and Wye College.

Alumni are listed by department. When an alumnus has obtained more than one degree from the College they are listed under the department of their first degree.

Where indicated by an \*, obituaries are available online at [www.imperial.ac.uk/alumni/obituaries](http://www.imperial.ac.uk/alumni/obituaries). Printed copies of obituaries are also available on request from [matters@imperial.ac.uk](mailto:matters@imperial.ac.uk) or by writing to *Imperial Matters*, Office of Alumni and Development, Imperial College London, South Kensington Campus, London SW7 2AZ.

## AERONAUTICS

Mr Paul S. Hollin (1985)  
Mr Brian Stoddart (1962)  
Professor Ian S. Gartshore (MSc 1959)

## BIOLOGY

Dr David J. Greathead (1953)  
Dr John M. Stonehouse (1985, MSc 1986,  
PhD Environmental Science and Technology 1990)

## BOTANY

Dr Richard J. Millington (1958)

## CENTRE FOR THE HISTORY OF SCIENCE, TECHNOLOGY AND MEDICINE

Mr David V. Proctor (1967)

## CHEMISTRY

Professor Keith W. Allen (1945)  
Dr Robert J. Dolphin (1966, PhD 1969)  
\* Professor Arthur Finch (1950, PhD 1953)  
Mr Gordon W. Fryer (1938)  
Dr Robert J.E. Hodges (1975, PhD 1978)  
Mr David M. Hooker (1945)  
Mr John Kendall (1949)  
Mr John E. Nightingale (1933)  
Dr Leonard R. Rowe (1938, PhD 1940)  
\* Mr Anthony H. Woollen (1943)  
Mr Derek M. Wyllie (1939, 1943)

## CHEMICAL ENGINEERING AND CHEMICAL TECHNOLOGY

Mr Erik R. Owusu-Sechere (1977)  
Mr Antony W. Pratt (1949)

## CIVIL AND ENVIRONMENTAL ENGINEERING

Mr Henry L.L.J. Barter (1942, DIC 1947)  
\* Mr James M. Chester (1928)  
Dr John A. Dean (PhD 1976)  
Emeritus Professor Vincent A. Dodd (1961)  
Mr Mark E. Emerson (1999)  
Mr Arthur D. Garrod (DIC 1952)  
Mr Richard H. Haddon-Jones (1976)  
Mr George R. Hallowes (MSc, 1972)  
Mr Peter P. Jacob (DIC 1960)  
Mr Edward V. Jenkins (DIC 1966)  
Mr Kyprianos D. Kyprianou (1994, MSc 1995)  
Dr Gerardo A. Lopez-Valadez (1976)  
Mr Colin B. Stevens (1952)  
Mr Brian Wilson (1964)

## COMPUTING

Mr Alan Dempster (1987)  
Mr Malcolm D Gray (MSc 1987)  
Mr Robert J Guscott (MSc 1972)

## EARTH SCIENCE AND ENGINEERING

Mr Alexander G. Borthwick (MSc 1996)  
\* Mr Frank A. Cassidy (1931, 1932)  
Mr William E. Everitt (1935)

## ELECTRICAL AND ELECTRONIC ENGINEERING

Mr Walter Fokschaner (1951)  
Brigadier Robert A. Gordon-Smith (1941)  
\* Mr Louis J. Heaton-Armstrong (1926, DIC 1927)  
Mr James R. O'Keeffe (1989)  
Mr Kenneth C. Pounds (1945)  
Mr Kenneth O. Sharples (1981)  
Mr Stephen H. Smyth (1940)  
\* Dr Frederick J.W. Symons (DIC 1963)  
Mr Kenneth W. Osborne (1937, DIC 1938)  
Mr Barrie F. Pichler (1966, MSc Mechanical  
Engineering 1969)

## ENVIRONMENTAL SCIENCE AND TECHNOLOGY

Miss Charlotte E.P. Rich (2004)

## MANAGEMENT

Mr James M. Guest (MBA, 1996)

## MATERIALS

Dr Douglas H Bell (PhD 1960)  
\* Mr Alan J. Beurrier (1959)  
Professor Douglas H. Bradhurst (PhD, 1963)  
Dr Colin G. Rouse (PhD 1975)  
\* Mr George L. Swales (1953)  
Dr Noel B. Thompson (PhD 1961)

## MECHANICAL ENGINEERING

Mr David E.P. Owen (1955)  
Mr Nikolaus L. Praxmarer (1991)  
Mr Cyrus Randeria (1991)  
Mr David T. Shore (1950, MSc 1953)  
Dr Porn Srichamara (1933, PhD 1936)  
Mr Wilfred C. Tompkins (1936)  
\* Mr Terence E. Steer (1957)  
\* Professor Meredith W. Thring (1939)  
Mr Bernard Timmis MSc (1965)  
Dr Kenneth J. Wootton (1941, PhD 1949)  
Mr Bernard Timmis (MSc 1965)

## MEDICINE

Dr Daniel Turnberg (2004)

## CHARING CROSS HOSPITAL MEDICAL SCHOOL

Sir Richard Bayliss  
Dr Norman Garwood (1947)  
Mr John V. Jeffs (1951)  
Dr Mark Trowell (1987)

## ST MARY'S HOSPITAL MEDICAL SCHOOL

Dr William A.C. Dow (1952)  
Dr Alan A. Hall (1939)  
Dr D.G. Maurice (1943)  
Dr D. Rowley (1950)  
Dr Michael V. Salmon (1948)  
\* Professor Sir Martin Roth (1943)  
\* Dr John S. Watson (1943)  
Dr Michael K. Williams (1958)  
Dr Patricia Wright (1987)

## WESTMINSTER MEDICAL SCHOOL

Dr A.R.L. Clark (1955)  
Dr Peter Goodall (1951)  
Dr W.A. Kmiot (1983)  
Dr John Stafford (1945)  
\* Dr Patrick C. Vivian (1953)  
Dr Lian H Lee (1953)

## PHYSICS

Mr Robert P. Abraham (1937)  
Mr Alfred J. Feuell (1951)  
Dr Michael E. Kay (1965, PhD 1968)  
Mr Peter J. Key (MSc 1962)  
Mr William R.P. Loosemore (1943)  
Dr Gordon I. Thompson (PhD 1952)

## WYE COLLEGE

Dr Jill E. Campbell (1958)  
Mrs B. Nowell nee Cox (1961)  
Mr J. Keir (1937)  
Mr N.H. Mackney (1951)  
\* Mr S.P. McClean (1953)  
Mr James M. Perez (1953)  
Mr Timothy J. Stone (1974)  
Mrs R. Viner nee Prescott-Decie (1969)  
\* Dr Cyril C. Webster (1931)  
Mr R.O. Wood (1925)

## Corrections:

*Imperial Matters* was incorrectly informed that Dr Gwyneth J.D. Botherway (Westminster Medical School 1954) and Mrs Erika Millman nee Schafler (Chemistry 1944) were deceased and they were listed on the in memoriam pages of issues 31 and 30 respectively. Both Dr Botherway and Mrs Millman are alive and well, and we sincerely apologise for the distress caused by these errors.

# honours

## New Year Honours 2008

**DR DAVID E. BARNARDO, OBE** (Charing Cross Hospital Medical School)

Vice-President and lately Chair, Barnardo's

*OBE for services to social care for children*

**MRS SANDRA M. CALDWELL, CB** (MSc Biochemistry 1972)

Director of Field Operations, Health and Safety Executive, Department for Work and Pensions

*Companion of the Order of the Bath*

**VICE ADMIRAL SIR ADRIAN J. JOHNS, KCB** (Physics 1972, 1973)

Second Sea Lord and Commander in Chief Naval Home Command

*Knight Commander of the Order of the Bath*

**PROFESSOR SIR ALEXANDER F. MARKHAM** (St Mary's Hospital Medical School 1985)

Lately Chief Executive, Cancer Research UK

*Knighted for services to medicine*

**PROFESSOR MARTIN P. SEVERIS, OBE** (St Mary's Hospital Medical School 1980)

Associate Dean (Clinical Practice), Faculty of Science, University of Portsmouth

*OBE for services to medicine*

**PROFESSOR BRIAN G. SPRATT, CBE**

Professor of Molecular Microbiology, Faculty of Medicine, Imperial College London

*CBE for services to Science*

**DR ANNA T. THOMAS-BETTS, MBE** (Earth Science and Engineering)

Senior Lecturer and College Tutor, Imperial College London

*MBE for services to the community and education*

## Fellows of the Royal Academy of Engineering 2007

**PROFESSOR NEIL M. ALFORD, FREng**

Professor of Physical Electronics and Thin Film Materials, Imperial College London

**PROFESSOR HELEN V. ATKINSON, FREng** (PhD Materials 1986)

Professor in Metals Processing, University of Leicester

**MR IAN P.T. FIRTH, FREng** (MSc Civil and Environmental Engineering 1982)

Senior Partner, Flint and Neill Partnership

**PROFESSOR RICHARD B. VINTER, FREng**

Head of the Control and Power Research Group, Imperial College London

**MR DAVID G. WABOSO, FREng** (MSc Civil and Environmental Engineering 1980)

Director of Engineering, London Underground

## Institute of Physics Annual Awards 2008

**PROFESSOR RUSSELL COWBURN**

Professor of Nanotechnology, Imperial College London

*Paterson Medal and prize for outstanding contributions to nanomagnetism and nanophotonics, and his internationally recognised success in commercially exploiting his research through spin-out companies*

**PROFESSOR SOUGATO BOSE** (PhD Physics 1999)

Reader in Physics, University College London

*Maxwell Medal for work on the characterisation and exploitation of entanglement in quantum systems, in particular for his work on the propagation of information in spin chains*

**PROFESSOR PATRICK GILL**

Visiting Professor in the Department of Physics, Imperial College London

*Young Medal and prize for world leading contributions to optical-frequency metrology*

**PROFESSOR EDWARD A. HINDS**

Chair in Physics, Imperial College London

*Thomson Medal and prize for important and elegant experimental investigations in the fields of atomic physics and quantum optics*

**PROFESSOR MICHAEL ROWAN-ROBINSON**

Chair in Astrophysics, Imperial College London

*Hoyle Medal and prize for pioneering research in infrared and submillimetre astronomy and observational cosmology*

**DR SIMON L. SINGH** (Physics 1987)

Writer and broadcaster

*Kelvin Medal for outstanding contributions to the public understanding of physics*

## Other awards and appointments



**EMERITUS PROFESSOR COLIN G. CARO**

Emeritus Professor of Physiological Mechanics, Imperial College London

*Honoured with a Special Award for Outstanding Personal Achievement at The Engineer Technology and Innovation Awards*



**PROFESSOR EMERITUS DONALD J. GILLIES** (MSc History of

Science, Technology and Medicine 1973)

Professor Emeritus of Media and Communications, Ryerson University

*Appointed Honorary Professor at UHI Millennium Institute*

**DR MADAWALA A. WIJERATNE** (Wye College 1994)

Senior Research Officer, Tea Institute of Sri Lanka

*Received the General Research Committee Award for outstanding contribution to research from the Sri Lanka Association for the Advancement of Science and the National Science and Technology Award for development and adaptation of new technologies*

If you receive a special honour or award, we will try to include your name on a future honours page. Email [matters@imperial.ac.uk](mailto:matters@imperial.ac.uk) to let us know.

## Event calendar 2008

### February

- 9 Hyde Park Relays (60th anniversary)
- 11 Special lecture in association with the Royal Institution and HarperCollins  
*Dr Marcus du Sautoy 'Finding Moonshine: a mathematician's journey through symmetry'*
- 26 Annual Diversity Lecture  
*Speaker: Yasmin Alibhai-Brown*

### March

- 10 Annual Hounsfield Lecture  
*Dr Rakesh Jain 'Normalising tumor vessels and microenvironment to treat cancer: From the bench to bedside and back'*
- 11 City and Guilds College Association Annual Dinner  
*Speaker: Lord Garel-Jones 'Whither the European Union'*  
Ironmongers' Hall
- 12 Ernst Chain Prize Lecture
- 28 Royal School of Mines in Australia Reunion  
Phillips Foote, Sydney Rocks, Sydney

### April

- Date tbc Annual Alumni Lecture
- 24 GOLD alumni drinks (Graduates of the Last Decade)  
Central London

### May

- 28 City and Guilds College Association AGM and President's Evening

### June

- 14 82nd Links Club Annual Dinner
- 21 Imperial College Union Summer Ball
- 26 Royal School of Mines Association AGM and Final Year Dinner

### July

- 2 Friends of Imperial College Summer Party

### September

- 20 Imperial College Alumni Reunion 2008

### November

- Date tbc GOLD alumni drinks (Graduates of the Last Decade)  
Central London
- 21 Royal School of Mines Association Annual Dinner  
Polish Club, 55 Exhibition Road, London SW7

### December

- Date tbc Christmas Alumni Event

Imperial College events are an excellent opportunity to hear about the latest College developments, advancements in research or simply to catch up with old friends. The events featured in this calendar are just a flavour of the events open to alumni throughout the year, both in the UK and overseas.

Unless otherwise stated, the events featured above will take place at the College's South Kensington Campus.

Throughout the year, all events specifically for or open to alumni can be found on the online alumni events calendar on the alumni website. This includes alumni events; College lectures, seminars, concerts and exhibitions; departmental events; alumni group events, both in the UK and overseas; and Friends of Imperial College events.

[www.imperial.ac.uk/alumni/events](http://www.imperial.ac.uk/alumni/events)

We also feature information about forthcoming events, both in the UK and overseas, in the monthly alumni e-bulletin. Sign up today and make sure you are kept up to date.

[www.imperial.ac.uk/alumni/ebulletin](http://www.imperial.ac.uk/alumni/ebulletin)

We hope to see you at an event soon!