

# Imperial matters

Spring | 2010

35

**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

Command  
of the sea  
A naval perspective  
on leadership



**Felix turns 60**

The history of  
student journalism

**Halls of residence**

Memories of student  
life in Eastside and  
Southside

Plus all the news  
from the College  
and alumni groups

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The cover image shows ships similar to the ones Second Sea Lord Adrian Johns sailed on during his time in the Royal Navy.

## Imperial College London

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# Welcome



I'm delighted to have this opportunity to say hello to you as Imperial's interim Rector, a post I took up at the start of January, following Sir Roy Anderson's resignation at the end of last year.

Many of you will have heard about this news from the alumni e-bulletin sent out in December. For those who did not, Sir Roy has chosen to step down to return his full focus to his research and international advisory roles on the spread of infectious diseases, for which he is globally renowned. I'm very pleased to say that he remains a member of the College community, and my thanks go to him for all he did for Imperial during his time as Rector. More information is on page 2.

So I'm new to the role of Rector, but not to Imperial itself. I arrived here in July 2008 to set up a new Institute for Security Science and Technology, and I have known and admired the College for considerably longer. My background is in academia, although I spent the majority of the past decade as a scientific advisor to government. In both of those roles I was aware of Imperial's reputation as a place that is dynamic and agile to opportunity. I was

delighted, when I arrived, to discover that my impressions as an outsider were confirmed by my experiences as an insider.

The beauty of this job is that it gives me a chance to get to know aspects of Imperial that would probably have remained largely beyond my horizons if I had remained at the Institute. I am currently in the middle of a programme of informal visits to departments, which are proving to be a great treat and an eye-opening insight into the sheer volume of imaginative research and teaching that is carried out here. Another pleasure is getting to know Imperial's students; a recent tour of Imperial College Union's headquarters even saw me trying out a pint of Imperial ale, which is certainly not a perk of the job that I had anticipated.

One key section of Imperial's community that I am still in the process of getting to know is our alumni, and I hope the future will bring opportunities to meet as many of you as possible. A recent trip to Singapore to discuss further collaborations with universities in the region gave me a chance to say hello to our very active alumni

association there, which was enormously enjoyable and has given me a real taste for further similar events. Your support and interest is greatly appreciated, and I would welcome any comments you have for me at [rector@imperial.ac.uk](mailto:rector@imperial.ac.uk).

With warm regards,

A handwritten signature in black ink that reads "Keith O'Nions". The signature is written in a cursive style and is positioned above a horizontal line.

**Sir Keith O'Nions**

## Rector of Imperial College London



In December 2009 Imperial's Rector Sir Roy Anderson stepped down in order to focus on his research as the College's Chair of Infectious Disease Epidemiology within the Faculty of Medicine. Thanking Sir Roy on behalf of the College, Lord Kerr, Chairman of the Court and Council, said: "During his time as Rector Sir Roy

has led the College through a challenging economic environment, has highlighted the economic and social value of research-intensive universities and has advanced Imperial's interests by playing a full part in public debate about the future of higher education." Sir Roy, whose association with the College goes back 40 years to his days as an undergraduate here, said: "I am immensely proud of and loyal to Imperial and I shall do all I can from my new position to ensure that our College maintains its world-leading position of today, and is well-prepared to meet new challenges tomorrow."

At the beginning of January, Sir Keith O'Nions (pictured above left), previously Director of the College's Institute for Security Science and Technology, took up the post of Acting Rector.

## Boris Johnson praises Imperial as 'true seat of wisdom' when opening restored Prince's Gardens



Boris Johnson (pictured third from right), the Mayor of London, visited Imperial in January 2010 to officially open the restored Prince's Gardens, following a £160 million investment by the College. The mayor toured the new halls of residence on the square and met students living in them.

He said of the College: "This is London's true seat of wisdom and it is unrivalled. I want to see more Nobel

Prize winners cut their teeth in South Kensington."

Work on the square began in 2002 and has included demolishing outdated student accommodation, replacing it with modern buildings that house over 800 students and are designed to fit aesthetically with the local area.

Imperial acquired Prince's Gardens in 1956, and its first four halls, collectively known as Southside, were opened by Princess Margaret in October 1963.



## Imaginative science showcased to young people at Imperial

Hundreds of 13–19 year olds descended on Imperial and its neighbours in November 2009 to find out more about careers in creative industries. Now in its fourth year, the Creative Quarter event saw a range of institutions and organisations in South Kensington throw open their doors to school students.

Imperial's science demonstrations were designed to show how creativity is as important for scientific research as for the many other fields represented. Silje Andersen, from Outreach, who organised Imperial's contribution to Creative Quarter, said: "The College wants to get across to young people that creativity is an inherent and vital part of science. Major discoveries and innovations come from using imagination and finding creative solutions to problems."



## City hall exhibition provides peek into lives of women in science at Imperial

Women from Imperial featured in a month-long photographic exhibition at City Hall this spring. The *100 Women, 100 Visions* exhibition, first shown at Imperial last year, features female scientists, engineers and doctors from the College demonstrating aspects of their work in a series of portraits taken by award-winning photographer Jackie King.

The exhibition was organised to address preconceptions about working in science, technology and medicine, and encourage more girls to think about studying science subjects at A-level,

university and beyond.

One of the organisers, PhD student Ellin Saunders, said: "Things have really opened up for women in many fields previously seen as the preserve of men. We wanted to celebrate that by capturing a visual record of the community of female scientists, engineers and doctors here at Imperial. The exciting thing about the City Hall exhibition is we can share that story with the public and hopefully inspire young visitors to seriously consider these areas for their careers."

## Stonewall top 100 ranking for Imperial

In January 2010 the College was named as one of the best employers for lesbian, gay, bisexual and transgender (LGBT) people. Imperial was placed at number 79 in Stonewall's 2010 Workplace Equality Index, a list showcasing the UK's best employers for LGBT people. The College was one of only two universities in the top 100 list, which is based on the steps employers are taking to create a work environment in which all staff feel secure and valued.

Welcoming Imperial's position in the index, Rector Sir Keith O'Nions said: "Imperial's great strength lies in the people who work here and we can't afford to let talent go to waste due to ignorance or prejudice."

The news reflects the College's increased focus over the past year on improving inclusivity and equality for LGBT staff, which began with the relaunching of its staff advisory group, Imperial 600, in January 2009.

## Awards and Honours

### Imperial leader wins prestigious Royal Society award



Professor Tony Kinloch, Head of the Department of Mechanical Engineering, was awarded the Armourers and Braziers' Company Prize by the Royal

Society in November 2009. The award is presented to leading researchers for excellence in materials science and technology. Professor Kinloch received the award for his contribution to adhesion science, which focuses on bonding different molecules together.

### Beek recognised by Royal Society



Trevor Beek, a technician in the Space and Atmospheric Physics research group, has been awarded one of the first Royal Society Hauksbee Awards for excellence in supporting

science. As part of its 350th anniversary in 2010, the Royal Society decided to recognise the unsung heroes of science, technology, engineering and maths for their work and commitment in supporting the UK science base. The awards are named after Francis Hauksbee who was Isaac Newton's laboratory assistant at the Royal Society.

### Society of Petroleum Engineers

Professor Alain Gringarten, Chair in Petroleum Engineering and Director of the Centre for Petroleum Studies in the Department of Earth Science and Engineering, was given Honorary Membership of the Society of Petroleum Engineers at their annual technical conference and exhibition, held in October 2009 in New Orleans, USA. Professor Gringarten was recognised for being an inspiration to petroleum engineers and for decades of outstanding service to the Society.



## Business School rises in the rankings



The Imperial College Business School climbed seven places to 32 in the world in January's latest Global MBA rankings from the *Financial Times*. The ranking uses measures like graduate employment, salaries and alumni recommendations to calculate a school's relative performance. The analysis also examines a school's specialist expertise, with the full-time

MBA third in the world for entrepreneurship, sixth for economics and seventh for marketing, making it one of only two MBAs in Europe with three top-10 subject-specific rankings. This achievement follows a steady rise in the rankings for the Business School since 2002.

In a separate *FT* listing, the School's MSc Management programme was a successful new entrant in 33rd place. The MSc Management course is not aimed at experienced professionals like the MBA and typically attracts a younger cohort. Its subject-specific ranking found the course to be first in the world for students interested in entrepreneurship and in the top-10 for strategy.

### Research in practice

The School has been busy exploiting the outcomes of its world class research in recent months. In December 2009 it hosted the first Innovation Summit in London. Academics, policy makers and business leaders met to discuss a range of issues related to the successful commercial exploitation of knowledge. Dr Graham Spittle, chairman of the Technology Strategy Board, a UK government-sponsored organisation that promotes technology-led innovation, gave the keynote speech.

"There is no steady option," Dr Spittle said, on the urgent need to successfully exploit the UK's research efforts, "we either slide backward or move forward in comparison with other countries."

Encouraging more interaction, he suggested that the "sacred cows of business and academia must be slaughtered and the risk of failure accepted more readily". He added: "Only by collaborating today, will we find out what works and what fails, and be able to move forward in the face of a recession and global competition."

Also spreading the School's findings is a second series of Best Practice in Innovation, Entrepreneurship and Design Encounters. Started in February, the five free, monthly discussions are aimed at experienced entrepreneurs who have previously taken a company through the start-up process. The series will help prepare managers for the next phase of growth by sharing ideas and experiences with other entrepreneurs, and academics and policy-makers interested in the field. The sessions are designed to be attended as stand-alone discussions or as an entire programme. Topics include: internationalisation strategies, open source business models, competition policy and intellectual property, public sector innovation and selling to large hi-tech firms. For more information please visit [www.imperial.ac.uk/entrepreneurship](http://www.imperial.ac.uk/entrepreneurship).



## New two-city programme for Italian managers to begin this year

A new four-week advanced management programme has been developed by the Business School and LUISS Business School, part of LUISS Guido Carli University, a private Italian university in Rome. Aimed at entrepreneurs and senior managers in family businesses, the programme is sponsored by Confindustria, an Italian employers' organisation.

Beginning at the end of 2010, the programme has been designed to be flexible, allowing delegates to attend four one-week teaching blocks over five months, which will be hosted in Italy and London. The programme will include the core business disciplines: accounting, finance, marketing and operations management. Modules drawing on the School's expertise in acquisition finance, entrepreneurship and innovation will also be provided. This mini-MBA is available to all Imperial alumni, for more information visit [www.imperial.ac.uk/business-school](http://www.imperial.ac.uk/business-school).





## Mars images reveal evidence of ancient lakes

Mars was warm enough to sustain lakes three billion years ago during the Hesperian Epoch, a period that was previously thought to be too cold and arid to sustain water on the surface, suggested Imperial research published this January in the journal *Geology*.

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



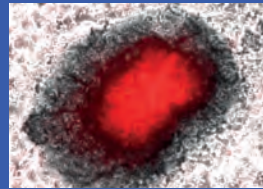
## Scary ancient spiders revealed in three-dimensional models

Early relatives of spiders were revealed in three-dimensional models in research published in the journal

*Biology Letters* in August 2009.

Mr Russell Garwood, PhD student from the Department of Earth Science and Engineering, created detailed three-dimensional computer models of two fossilised specimens of ancient creatures called *Cryptomartus hindi* and *Eophrynus prestvicii*, which roamed the Earth during the Carboniferous period 359–299 million years ago.

Mr Garwood said: "Our models almost bring these ancient creatures back to life and it's really exciting to be able to look at them in such detail. Our study helps build a picture of what was happening during this period early in the history of life on land."



## Scientists edge closer to implantable bone material

Dr Molly Stevens and her team in the Department of Materials and the Institute of Biomedical Engineering moved one step closer to understanding how to grow replacement bones with stem cell technology in July 2009.

Dr Stevens, whose study was published in the journal *Nature Materials*, compared the 'bone-like' material grown from three different, commonly used, clinically relevant cell types and discovered that the materials that were grown from mouse skull and bone marrow stem cells successfully mimicked many of the hallmarks of real bone.

Dr Stevens said: "It brings us one step closer to developing materials that will have the highest chance of success when implanted into patients."

## Students plan record-breaking zero emission 'supercar' journey along world's longest road



Students from the Faculty of Engineering who are planning a record-breaking journey across the Americas this year showcased their electric 'supercar' in the College's foyer in November 2009. Undergraduates and postgraduates from the Faculty of Engineering are transforming one of the world's fastest petrol powered racing cars, which is called the Radical SR8, into a high performance electric vehicle.

The Racing Green Endurance team is aiming to be the first in the world to drive an electric vehicle the full length of the Pan American Highway – from the southern tip of South America to the Arctic tundra in northern Alaska.

The Pan American Highway is 26,000 kilometres long and the team hopes to race across it in May 2010.

When the electric conversion is complete, the SR8 should have a top speed of 190 kilometres per hour and accelerate from zero to 100 kilometres per hour in seven seconds.

Team leader, Alexander Schey, an undergraduate from the Department of Mechanical Engineering, said: "We want to dispel the negative public perception of electric vehicles as slow unattractive cars with a limited range by demonstrating that electric cars can be 'sexy' and have outstanding performance capabilities."

## Heart rhythm gene revealed in new research



A gene that regulates the rhythm of the heart was revealed in research published in January 2010 in *Nature Genetics*. The authors of the study say their discovery helps them to understand how the body's heartbeat is controlled and could ultimately help scientists design more targeted drugs to prevent and treat certain heart problems.

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

## Mixed-handed children more likely to have mental health, language and scholastic problems

Children who are mixed-handed, or ambidextrous, are more likely to have mental health, language and scholastic problems in childhood than right or left-handed children, according to a study published in January 2010 in the journal *Pediatrics*.

The researchers behind the study suggest that their findings may help teachers and health professionals to identify children who are particularly at risk of developing certain problems.

Dr Alina Rodriguez, School of Public Health, said: "Our study is interesting because it suggests that some children who are mixed-handed experience greater difficulties in school than their left and right-handed friends. We think that there are differences in the brain that might explain these difficulties, but there needs to be more research."

## New virus is not linked to chronic fatigue syndrome

New UK research, published in January 2010 in *PLoS ONE*, did not reproduce previous findings that suggested chronic fatigue syndrome may be linked to a recently discovered virus. The authors of the study say this means that anti-retroviral drugs may not be an effective treatment for people with the illness.

An estimated three in 1,000 people have chronic fatigue syndrome (CFS) or myalgic encephalomyelitis (ME), experiencing severe physical and mental fatigue that is not alleviated by rest; together with other symptoms such as muscle pain, headache, joint pain and depression.

In the new study, researchers found no evidence that patients with CFS had the XMRV virus, after analysing tissue samples from 186 patients with CFS using sensitive molecular testing techniques.

Professor Myra McClure, Department of Medicine, said: "We are confident that our results show there is no link between XMRV and chronic fatigue syndrome, at least in the UK. Our recommendation to people with chronic fatigue syndrome would be not to change their treatment regime, because our results suggest that anti-retrovirals would not be an effective treatment for the condition."

## Living the high life is risky business for toads



Midwife toads, or *Alytes* toads, that live in the mountains are highly likely to die from a serious fungal infection called chytridiomycosis, whereas their infected relatives in the lowlands are not, according to research published in January 2010 in *Ecology Letters*.

Dr Matthew Fisher, Department of Infectious Disease Epidemiology, said: "We identified infected midwife toads across the Iberian Peninsula, but the infection was much more likely to be fatal in toads that live at high altitudes, such as in mountain ranges. These areas are often tourist hotspots, and if people are walking along footpaths and visiting different lakes, they may be spreading the infection unwittingly."



## Malaria researchers meddle in mosquito sex lives

Stopping male mosquitoes from sealing their sperm inside females with a ‘mating plug’ could prevent them from reproducing, and offer a new way to combat malaria, according to a team of Imperial researchers led by Dr Flaminia Catteruccia of the Department of Life Sciences. The team has shown for the first time that the mating plug, transferred to the female by the male after mating, ensures that sperm is correctly stored in the female’s sperm storage organ, from where she fertilises eggs over the course of her lifetime. “Removing or interfering with the mating plug renders copulation ineffective,” said Dr Catteruccia. “This could be one more weapon in the arsenal against malaria.”



## Climate change: expect the unexpected in Africa

Predicting the effects of climate change on different regions of Africa is extremely difficult, according to Professor Sir Gordon Conway of the Grantham Institute for Climate Change, and communities and countries should prepare for the unexpected.

Writing in a discussion paper published by the Institute, Sir Gordon explained that the complexity of Africa’s climate – such as the cycle of hot air and rain in the tropics, monsoons and the El Niño/La Niña phenomena – makes it hard to forecast what will happen when and where. “Essentially it means having to prepare for the unknown,” he said. “The key is helping people develop more resilient lifestyles and livelihoods, so that unknown and unpredictable shocks and extreme weather events are not so damaging.”

## Biology students get up to monkey business

Having your packed lunch stolen by an inquisitive baboon isn’t something that happens every day while studying for a biology degree. But, as 20 third-year biology and ecology students discovered on the College’s first tropical biology field course, strange things can happen when the rainforest is your classroom. Staying in Uganda at a Makerere University field station, the group learnt about life as a tropical biologist including ringing birds, identifying plants and insects and trapping moths by moonlight. Student Tom Barber said: “One of the most memorable moments



of the trip for me was walking along a track through the jungle, and seeing a group of chimpanzees emerge from the trees and walk right across the path in front of us.” The course is now held every summer holiday.

## On-the-job training for industrial chemists



A new agreement with pharmaceutical company GlaxoSmithKline (GSK) will see the Department of Chemistry providing a new qualification for activities in the workplace. The partnership will give GSK’s chemists the opportunity to work for a Certificate of Advanced Study in Industrial Pharmaceutical Chemistry, awarded by the College to recognise and accredit workplace achievements in both scientific knowledge and practical applications. Professor Tom Welton, Head of Chemistry, said: “This is the first time that the College has partnered

with industry in this way to provide an Imperial-awarded qualification for on-the-job learning, but when we thought about it we realised it’s exactly the sort of thing we should be doing. Imperial is all about contributing to the world beyond our doors, and chemistry in particular underpins a whole host of important applications. Both the research we do here and the highly educated graduates we produce are very valuable to companies like GSK, so offering tailored, industry-focused education is an obvious next step.”



## Imperial fencing club brings home medals galore!

The weekend of 5–6 December 2009 saw 19 Imperial College London students travel to Nottingham for the BUCS individual fencing championships. The competition was the biggest and toughest so far with as many, if not more, entrants than at most national open tournaments. Despite the amount of entries and the level of competition, our students brought home their best results yet!

With a maximum of six entries per institution per weapon, we had students fighting for places to compete before the club even left London which is always a good start.

Imperial finished the weekend and came home with four medals. Our fencers are definitely the ones to watch and we wish them the best of luck for the rest of the season. Well done to all who competed last weekend, excellent results all round!

## The Royal Parks Foundation half marathon and Right to Play

Dr Dilbinder Gill, Senior Scientist, Department of Medicine, ran the Royal Parks Foundation half marathon for Right to Play on Sunday 11 October 2009, starting and finishing in Hyde Park.

Dilbinder said of the event: “There was a time when I could run 14 to 15 miles on a Sunday with a couple of shorter runs during the week, in addition to the daily 20-mile bicycle commute to work. Somehow life got in the way and I didn’t run for almost a year. To get myself started I signed up for the Royal Parks half marathon and decided to collect money for Right to Play so everyone I knew would know that I would be running, which meant no more sloping off instead of training. Right to Play is a really good idea, using sport and play as a tool for development

of disadvantaged children and youth.”

Dilbinder finished the race in two hours, 13 minutes and 43 seconds. Not bad for a born again runner!



## Photographic exhibition about climate change held at Imperial

In his exhibition at the College, Mark Edwards, world renowned photographer and founder of the Hard Rain project, explored issues defining the twenty-first century, including climate change, poverty, habitat and human rights.



The exhibition took the audience on a journey that explored the state of our planet, using powerful images from around the world that illustrated every line of Bob Dylan’s song “A hard rain’s a-gonna fall”.

The Hard Rain exhibition was on display on the Queen’s Lawn on the South Kensington Campus. It was organised by Facilities Management and aimed to raise awareness amongst staff and students of their responsibilities to reduce waste and carbon consumption, and to support Imperial’s commitment to becoming more sustainable.





## Note from the Editor



One of many things I've wondered as I started my job as Editor, is whether every editor has had the same privilege of such a loyal readership. The 60th anniversary dinner allowed me to find out by talking to past editors and it turns out I'm extremely lucky to be one of the editors to have the majority of students at the College reading the newspaper every single week. I'd like to think I've built on the solid foundations laid down by the past editors, and that *Felix*, as a student newspaper, is yet to reach its peak this year. Unfortunately we lost our crown as The *Guardian's* Student Newspaper of the Year, though we were shortlisted again. I guess it's my job to gloriously snatch it back next year, and hopefully *Felix's* readers will appreciate everything in-between as we strive to do just that.

➤ Dan Wan, *Felix* Editor-in-Chief 2009–10

## New Guilds President announced

Following the departure of Kirsty Patterson, former City and Guilds College Union President, the CGCU held elections to appoint a new President and *Guildsheet* Editor. *Guildsheet* is the monthly student newspaper of the Faculty of Engineering.

The results of the election were announced on Monday 8 February and Dan Lundy is to be the new President and Richard Bennett the *Guildsheet* Editor.

Lundy commented on his victory, stating that he is "very glad to be appointed President" and is "looking forward to working with the rest of the committee to provide some great social events and represent the Faculty on student welfare issues".



## Imperial's *University Challenge* team in with a chance of a place in the semi-finals



On 7 September 2009, Ciarán Healy, Simon Good and Benedict Nicholson, captained by Gilead Amit, with reserve Edward Brightman, officially pressed the buzzers for the first time during their first appearance on the 39th series of *University Challenge*. They were accompanied by the *Felix* cat, which sat above Imperial's points counter.

In the first show, the team accumulated 175 points to the University of Southampton's 135. In round two, the team defeated St Hugh's College, Oxford, with an outstanding 280 points to the opponents' 80.

Each team must win two quarter final clashes before proceeding to the semi-finals. Against University of Edinburgh, Imperial produced an impressive 240 points to their 110, however the boys were unfortunately not so lucky against Cambridge. We are eagerly anticipating the boys' next move, and wish them good luck for the next round!

## Felix launches its online archive

*Felix* has been documenting the goings-on at College since 1949 and if, during your time at Imperial, you were mentioned in the newspaper, you'll be able to search your name or the event you were involved in by turning to our new online *Felix* archive. To coincide with our 60th anniversary, after a long hard slog starting in late 2008 by Jovan Nedic (Aeronautics 2008, Editor 2008–09), every single issue has been scanned and remastered. So to Jovan, thank you. To all of you, please enjoy. It's a truly wonderful tool that you can while away hours on. [www.felixonline.co.uk](http://www.felixonline.co.uk)

## Celebrating *Felix's* 60th anniversary



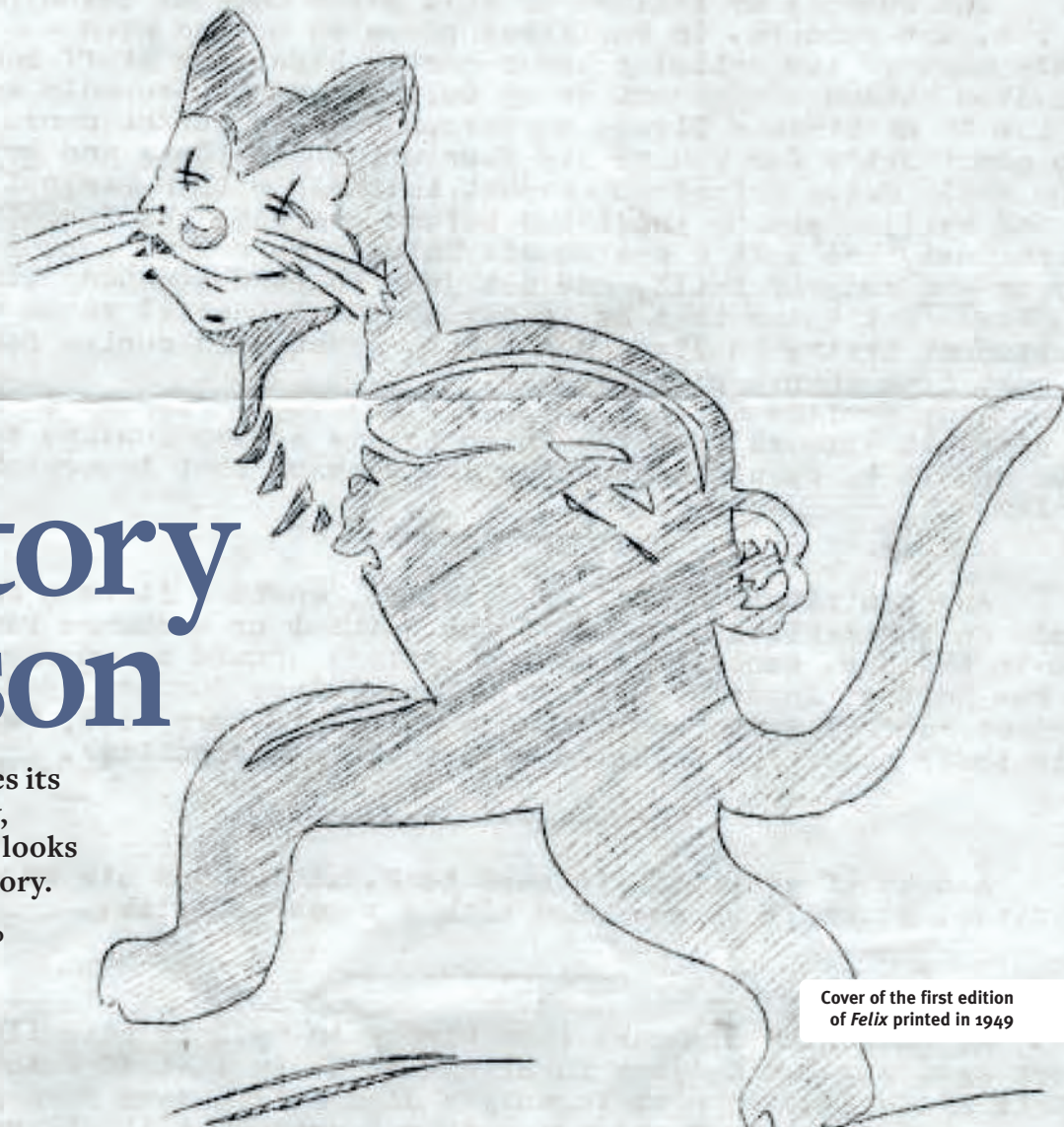
The first week of December 2009 saw *Felix* celebrate 60 years since its inception in 1949. Thousands of students have put their name to the publication over this time, and the current team only saw it fitting to hold a special night to say thank you.

The invitation was open to anyone who had edited or contributed to *Felix*, and we were lucky enough to be graced by 14 past editors and their partners. A special mention must go to David Cooper (Physics 1967, PhD Chemical Engineering and Chemical Technology 1970), who was Editor of *Felix* back in the heady days of 1967–68. After giving them a tour of the current office and the Union, a four-course dinner was followed by guest speakers Pallab Ghosh (Physics 1983, Editor 1983–84) and Simon Singh (Physics 1987).

The issue that week was adorned by a celebratory pull-off wrap, which reprinted articles from the very first issue dating back to 1949. The team are extremely proud of the issue, and so they should be. I'm entirely honoured to be Editor-in-Chief for its 60th year, and I'd like to believe we did our proud history justice with the special issue.

FELIX

FRIDAY DEC. 9H.



# A history lesson

As *Felix* celebrates its 60th anniversary, *Imperial Matters* looks back over its history.

by Anna Codrea-Rado

Cover of the first edition of *Felix* printed in 1949



On 9 December 1949 a new student publication, *Felix*, appeared on news stands around the campus. The first editorial explained its raison d'être: "The need has been felt for some time for a frequently published journal to comment upon the affairs of the College whilst they are still topical." That first edition was compiled by founding Editor Edward Hughes (Mechanical Engineering 1950) and his team 60 years ago this past December and has been a staple feature of College life ever since. That first issue was charged at three pence and sold out within an hour of hitting the newsstands.

Continuing the work of his predecessors, the fourth editor of *Felix* was Stephen Wearne (DIC Civil Engineering 1952). During Stephen's two editorships, 1951–52 and 1952–53, the paper would be prepared for black and white photographic copying by a small printing house in South Kensington. The editorial team would type and draw the material and then paste it onto large cards for each page. Now retired, Wearne continues to tutor at the University of Manchester in industrial project management programmes for BP. By the time Nick Walker (Mechanical Engineering 1965) became editor in 1964, the printing process had already changed drastically, but was the nonetheless a complex affair. The printer – a former-RAF WWII Polish fighter pilot – worked from a basement behind the Post

Office's Fulham sorting office. The copy had to be ready by Sunday night: printing proofs would return by the following Wednesday, and the editorial team would have the corrected copy back to the printer by Thursday morning for a print run on Thursday evening. Owing to the long timescales of the printing process, the editorial team decided to add a one page 'Late News' section to the paper so that they could incorporate anything that really was still news having happened since the Sunday copy deadline. The team produced this new section using, what was at the time, a state-of-the-art copying facility – Gestetner wax paper. This involved having copy typed onto the paper and then run through *Felix's* own hand-operated printing press. Despite the mess involved, the page was always produced on the Thursday night to a 22.30 deadline, just in time for the team to make it to the Union Bar before last orders. It was not uncommon, apparently, for the beer to migrate back upstairs as production continued through the night.

During Nick's spell as Editor – as with many other *Felix* editors – he

became embroiled in a dispute over the content of one of his articles. In late 1964 there was pressure from a trade union, called the Association of Scientific Workers (AScW), for all laboratory technicians to join the association. The AScW were not in the least bit amused with Nick's 2 December 1964 front page, in which he "selectively quoted" their rule book and essentially accused them of being members of the Communist Party. After threatening legal action, Nick had to concede and print a formal apology in *Felix*.

Among *Felix's* original purposes, it intended to "bring to the attention of its members the activities of clubs and societies of which people at present know little, and knowing little, tend to care even less." This continued to be the case until the 1960s when *Felix* gradually started to become a vehicle for student journalists to hone their skills as reporters, commentators and reviewers. Increasing reports on sporting events and reviews of film and pop concerts began to populate the pages. This increasing emphasis on the arts was cemented when Colin Harrison (Electrical Engineering

"The need has been felt for some time for a frequently published journal to comment upon the affairs of the College whilst they are still topical"

## Timeline of past editions of *Felix*



> 31 October 1952  
S.H. Wearne



> 3 October 1960  
J. Carter



> 19 February 1964  
N.J. Walker



> 10 December 1970  
A.J. Sims

# A history lesson

1968, PhD 1972) joined the *Felix* team in 1965 as a photographer and then went on to become Editor in 1966. He was delighted by *Felix*'s possession of a 35mm SLR camera; unlimited access to the darkroom in Beit and the charge account at Wallace Heaton (a premier London photographic retailer until it was bought by Dixons in 1972). Not only were the journalists of this time keen to report on concerts, but they were treated to some celebrated acts: in 1967 *Felix* reported and photographed Jimi Hendrix's performance at the Union's Carnival event.

As the 1960s faded into the 1970s, printing processes continued to improve but other technologies lagged behind. Malcolm Williamson (Physics 1970, Editor 1969–70), recalls fighting a constant battle to source photographs for each edition. Owning one camera was a definite starting point for building a strong image library, but it still meant that far from all the reporters had access to it. Not to mention that online libraries of stock images had not come into existence yet, so it was not uncommon for the same photograph of a rugby line out to repeatedly appear within the sports page.

The late 1980s saw the infancy of desktop publishing (DTP). Judith Hackney (Physics 1989, Editor 1987–88) and her team employed a typesetter who would take the handwritten words and type them into the computer, which would then produce typeset 'galleys' of

the text. This was then cut up and pasted and onto A3 sheets of paper. Once a pair of pages was ready, the second paid employee – the printer – would produce a printing plate using a variety of chemicals and a Ryobi press in the back of the *Felix* office to produce about 2,000 copies. Very late on a Thursday evening, the team would hand-collate the paper to produce the final *Felix* and the Editor would have the joy of delivering the copies to each department's reception area the next morning before the students and staff arrived. This was reportedly achieved using a 'borrowed' shopping trolley.

By the time Alex Feakes (Physics 1996) became Editor in 1996, the DTP revolution was well underway, but still with some old practices. High powered computers with the then latest DTP software were used to create artwork and designed pages. These were then stuck onto pasteboards to be turned into steel plates for use on the two offset litho printing machines in the back office. Hand drawn artwork and photographs, if not scanned in, would be 'bromided' (photographed through a dot-screen) and then manually pasted.

Once the printed sheets were dry, they were collated and stapled. A very temperamental machine was used for this, which required a lot of cleaning and polishing in order for it to work. At that stage in time *Felix* also ran a print-shop business, which turned over about



£50,000 a year. So by printing and photocopying for others, they were able to afford to employ a full-time printer and assistant.

In recent years, *Felix* has received critical acclaim for its journalistic talents, doing exceptionally well at *The Guardian*'s Student Media Awards. Twice the paper has won Newspaper of the Year, in 2006 and 2008. Two Imperial students have also won Journalist of the Year: Rupert Neate (Biological Sciences 2005, Editor 2005–06) and Tom Roberts (MSci Physics 2009, Editor 2007–08).

Today *Felix* adamantly emphasises its right to comment freely on all aspects of College life; vehemently exercising this against any attempts to be editorially censored. Writing in the editorial for the 60th anniversary special edition of *Felix*, current editor Dan Wan commented: "The cat has grown claws too sharp and has become too fearsome to be editorially caged by any institution." Usually the institution in question is the Union. Reading over the first *Felix* editorial, it would appear that the newspaper's first editor also had the same desire to "unreservedly comment on the College". Edward

## Timeline of past editions of *Felix*



➤ 9 December 1971  
D. Sugden



➤ 4 June 1976  
P. Ekpenyong



➤ 1 February 1980  
C. Palmer



➤ 3 October 1983  
P. Ghosh



Hughes claimed that “any profits made by the paper are to be devoted to Sports Day, since it appears that the Union is now so impecunious that it may be unable to subsidise coaches and teas on that important occasion”. It would seem that run-ins between the Union and *Felix* have been a regular historical occurrence.

As part of the celebration of *Felix*'s 60th anniversary, the logo has been redesigned to replicate the original 1949 logo. Current *Felix* layout editor, Carlos Karingal, scanned in archived issues from 1949 to adapt the original logo into a cleaner, modernised version (Shown on the opposite page). Alongside subtle modifications to the left eye, arm and paws, the cat is now silhouetted and set against a black ring. In years gone by, the cat has adorned the pages of *Felix* in a variety of incarnations; from sabretoothed tabby cats to more predatory pumas and tigers. The outgoing version embodied a distinctive ‘knight’, featuring a humanised cat holding a shield, sword and cape in full colour. It was incorporated into an official crest that was heavily used in editions in of *Felix* throughout the 1980s and 1990s. In 1999 Editor Dave Roberts (Physics 1999, MSc Humanities 2001) made the decision to replace the knight with a silhouette of a leaping cat; featureless and barely recognisable as *Felix*. The following year, all feline connotations were removed wholesale from the

paper's artwork. Instead, a pair of scowling human eyes stared at the reader from the masthead. The cat made its return upon the arrival of Will Dugdale (MSci Physics 2001) as editor in 2002, albeit in the novel sabretoothed form. As Dugdale's tenure as editor came to an end, David Edwards (MSci Maths 2004, Editor 2004-05) resurrected the knight from the dark depths of the 1990s. Five years on and the knight has since been incorporated into the *Felix* masthead in two forms: the first with full crest and motto ‘Keep the Cat Free’; and the second as a circled, lone silhouette (which was used up to last year).

Very few former editors of *Felix* actually ended up pursuing a career in the media, although notably, Pallab Ghosh (Physics 1983, Editor 1983-84), is now the BBC's Science Correspondent and Judith Hackney also works for the BBC, heading up a team of 180 broadcast engineers, IT analysts and technicians, who are responsible for keeping the BBC on air. Paul Ekpenyong (Mathematics 1975, Editor 1975-76), like some other past editors, went into the marketing sector of a scientific industry; becoming the Sales and Marketing Director of Miniflex. The

majority of former editors, however, have gone onto to pursue successful careers in areas of study directly related to their degrees. Having said that, although an environmental physicist by trade, David Cooper (Physics 1967, PhD Chemical Engineering and Chemical Technology 1970, Editor 1967-68) edits a newsletter for his local branch of the Campaign for Real Ale and feels that he was able to do this because of his editorial experience from *Felix*. Despite the fact that most of the past *Felix* editors have gone into unrelated professions, the majority of them agree the lessons and skills they learnt during their tenure have been invaluable to their careers and life more generally. Many past editors have commented on the importance of learning proof-reading and written skills as a result of their editorship. The disciplines of meeting deadlines and effective management are readily transferable to all walks of life and a plethora of career paths.

The last 60 years of *Felix* have been truly colourful, and hopefully the next 60 will continue in this trend and bring news, reviews and general views to Imperial students. [m](#)

“It was not uncommon for the beer to migrate back upstairs as production continued through the night.”



› 30 October 1987  
J. Hackney



› 12 November 1993  
R. Land



› 26 January 2007  
A. Sykes



› 25 January 2010  
D. Wan

H.M.S. VICTORY

› by Zoë Perkins

# Six lessons in leadership

Alumnus Vice Admiral Sir Adrian Johns (Physics 1972, MSc 1973) shares his experiences of captaincy and command in the Royal Navy.



**“You are all cooped up inside this tin can for months and months on end with scores of people to whom you are not related and who you probably wouldn’t have chosen as your shipmates.”**

### Delegation

“Delegation is all about trusting people to get on with the job that you give them, but it’s far more than just giving someone a job, telling them to crack on and not to bother you until it’s all finished. Delegators have a huge responsibility in terms of judging the capability and competence of the people that we’re giving the jobs to, making sure that the right resources are there, that the risks are understood. There’s also a great trick in knowing whether, how and when to intervene when things are not going terribly well.

“In Nelson’s day, long-range communication was a bit of an issue. At the battle of Trafalgar there were 60 ships like HMS Victory, which was my flagship as Second Sea Lord, with something like 5,500 great guns fighting it out in a relatively small area of sea and so it was utter confusion and chaos. Now Nelson knew that, and he knew that his plan for Trafalgar needed to be communicated to his people in advance of the battle because there was no way that he would be able to get messages around the fleet once it was underway. So he called all his captains across to Victory and explained his plan to them in considerable detail. He made sure that every single one of them was entirely sure about what he wanted to achieve. When one young frigate captain questioned what they might do if it all went wrong, he came out with this wonderful phrase: ‘In the confusion of battle, no captain can do wrong if he lays his ship alongside that of the enemy.’ So this crystal clarity of his intent and purpose is the lesson I took from that.

“How often I thought that my intent and purpose was quite clear to everybody else but it wasn’t. I think there’s a great lesson to be learnt from that, in terms of getting your message across and making it absolutely clear. >

Vice Admiral Sir Adrian Johns knew from a very early age that he would be joining the Royal Navy; as a boy growing up in Cornwall, the occasional trip to Plymouth across the River Tamar’s Royal Albert Bridge with its view, as far as the eye could see, of frigates, destroyers, cruisers, battleships and aircraft carriers sparked his young imagination. It was a snapshot that has stayed with Adrian, now retired from the Navy, ever since, but this early passion to join the Navy did little to convince his school careers master of the wisdom of this career choice however. So it was down to him that Adrian came to Imperial at all; they had agreed that he should get a degree first just in case he changed his mind about the Navy or wanted a career change later in life and needed something to fall back on.

Adrian had signed up for what he describes as, a “gentlemanly” degree in physics, but the Navy was still calling him and not long after completing his degree he gave in to his boyhood dream. This was the beginning of a long and illustrious career; after his initial postings he trained as a helicopter pilot before becoming a flying instructor. He rapidly climbed the ranks from Commander to Captain, holding command of HMS Campbeltown and HMS Ocean among other ships; then Rear Admiral during which time he served as Assistant Chief of the Naval Staff and Rear Admiral Fleet Air Arm; then finally he was promoted to Vice Admiral and appointed Second Sea Lord and Commander in Chief of Naval Home Command.

Some 40 years on, Sir Adrian’s passion and excitement for the Navy is still clear for all to see. He describes the organisation with which he spent his entire career: “Looking back at one’s own institution is quite an illuminating thing. But looking back at the Navy, it is quite an extraordinary organisation. It operates on the sea, under the sea, in the air and on the land. It has its own health service, makes its own maps and surveys the water that it operates in around the world. It employs everyone from navigators to nurses, seamen to surgeons, pilots, engineers, and logisticians; all encapsulated in about

35,000 people, which would only half fill Manchester United’s stadium at Old Trafford.”

Another thing that makes the Navy an extraordinary organisation is its ability to mobilise these people from different backgrounds and with different specialisms to pull together as one team. Sir Adrian cites common adversity as something vital to bringing a team together and, in the Navy’s case, this adversity is the sea: “You are all cooped up inside this tin can for months and months on end with scores of people to whom you are not related and who you probably wouldn’t have chosen as your shipmates, had you had the choice in the first place. When the captain says we’re going to starboard, *everyone* goes to starboard. Making the ship operate, and operate safely, relies on this unique understanding and awareness of what you’re all doing together. But sailors also have to do everything autonomously as well, so every sailor is a trained first aider, every sailor is a fire fighter, every sailor depends on the others. But if we are to operate a finely tuned greyhound of the oceans, a high-performance warship, leadership is vital.”

Who better, then, to share his experiences of leadership than Vice Admiral Sir Adrian Johns; he considers leadership to have six pillars: delegation, subordinate development, loneliness, adaptability, humour and heritage.



## Six lessons in leadership

**“The discipline of standing at the back of the bridge with my hands clenched behind my back, hoping that I didn’t have to intervene was far, far harder than getting up there and doing it myself.”**

“There’s always the danger of misinterpretation, which I’ve done nearly to enormous cost in the Gulf. We were there on HMS Ocean and we were quite a long way up to the north of the Gulf. The commander of the task force came onto the satellite phone and it turned out to be a bad line. I thought he said that they’d like me to push further up north towards the port in Umm Qasr with a view to doing a reconnaissance to see whether we could get my ship alongside the port. So we started to move up north and suddenly found ourselves amongst a whole bunch of minesweepers and I realised that there was something wrong with this picture. What would minesweepers be doing? They’d be sweeping for mines wouldn’t they! So we turned around and I got back on the phone to find that the whole conversation had been prefixed by ‘We’re thinking about’. From that moment on we agreed verbal messages would be repeated in writing with a small tactical signal for the avoidance of any doubt whatsoever.

“Part of delegation is taking risk, and there is risk, but also huge benefit, in allowing other people to make mistakes. Not repeatedly, but to make mistakes and to learn from them. When I took command of my first frigate, I went to have lunch with the then Flotilla Commander who was a very senior admiral, who said something that I will never forget: “You’re going to make a mistake in command, more than one. If you prove to be reckless or negligent, or you just haven’t thought it through, I’ll stop your career. But if you’ve made a mistake and you’ve given it rational thought, you’ve calculated the risk and it’s a reasonable thing to have done, then I will back you to the hilt.”

### Subordinate development

“Bringing youngsters on is not always easy because often the path of least resistance is very often to do things yourself. This is particularly the case with things like ship handling when total responsibility lies with the commanding officer. Take HMS Nottingham which hit a very large rock off the coast of Australia; the commanding officer

wasn’t there at the time, but was court marshalled nonetheless.

“Letting go, and letting someone else have a go, took 10 years off my life. The discipline of standing at the back of the bridge with my hands clenched behind my back, hoping that I didn’t have to intervene was far, far harder than getting up there and doing it myself, but I hope that it paid off because there was a real duty and responsibility to train my successors.

“We think it’s so important in the armed forces that there is a box on our personal reports called subordinate development, and every officer is judged and marked on his or her ability to bring on young people and train them in succession.”

### Loneliness

“The first aspect of loneliness is that it is something that one really feels in times of crisis, when the sky is falling in around you. I think suddenly you feel like you’re the only one there, like you’re the only one that can make the decision.

“I first experienced this in the first ship that I commanded at sea. The ship was coming out of a refit programme and we were in northern Scotland to take the

ship out for, what was called in those days, full forcing rate trials on the boilers. It was a steam ship, which dates us a bit, but there were two boilers and two engines. It meant that one side was completely shut down and you had to run the other side up to the maximum. We were talking about 850°F and 550 pounds per square inch steam pressure. Why do I remember those things? They’re absolutely imprinted on my memory. We had proved the starboard side and the following morning we had to prove the port side. The weather was getting worse, the forecast was really grim, and I thought we had just about enough time to do this. Had it not been for a major boiler explosion we would have done, but it meant the ship was absolutely dead in the water.

“The wind at this stage was about 40 knots and I will never forget standing on the bridge with almost no options left at all. I looked around and of course, metaphorically speaking, there was no one there. There is a happy ending to the story but it was one of those moments in my early career where I could see us all ending up on the beach together.

“The second aspect of loneliness in the Navy is that the captain messes alone. So in HMS Ocean, my sea cabin was about 120 feet up in the air, the wardroom was way down on six deck, down below. I often sat up there in the evenings





wondering what the officers were doing. It was a peculiar situation, which is both a curse and a privilege; it was part of the loneliness of leadership that was enforced upon me, but I needed to do that anyway. You need to step back from the hurly-burly and everything that's going on to take stock, to look at things objectively and to think."

### Adaptability

"In a sense, command at sea is tactical, so adapting between that and the more strategic leadership of running a major change programme in a large organisation is quite an interesting trick, and it takes very different qualities.

"One of the challenges that I personally faced relates to the Fleet Air Arm, the aviation arm of the Navy, which I perceived to be rather disparate and disaggregated in its effect and its focus. To give you the background, the Navy first took to the air in 1909. It was in the days before fixed-wing aviation, so we're talking airships. At the time the Navy was a deeply conservative, Victorian organisation with senior admirals who were very set in their ways to the extent that the admiralty wrote to the Wright brothers saying that they could see no possible use for aircraft at sea. Indeed one particular admiral wrote just before the First World War came along: 'When the war comes I think the Navy will need aircraft but probably no more than two.' How wrong he was! By the end of the war the newly formed Royal Naval Air Service owned something like 3,000 aeroplanes, had 67,000 people and 160 air stations and was the greatest air force in the world at the time.

"The coming together of the Royal Flying Corps and the Royal Naval Air Service in 1918, and the subsequent handing back of the Fleet Air Arm to the Navy have left a frisson of tension between the Royal Air Force and the Navy, about flying and who flies what. After the war, the Fleet Air Arm was a very unified body, but nowadays it is spread between the three services and what this means is that people need a different sort of leadership. I perceived that people were beginning to lose their focus about who they were and why they were doing what they were doing.

"So I set out to write a vision, called

**"My sea cabin was about 120 feet up in the air. I often sat up there in the evenings wondering what the officers were doing. It was part of the loneliness of leadership."**

*The Future Fleet Air Arm*, which formed the basis for lots of events, media and internal communications. It was all very important because it began to get people thinking about who they were and why they were doing what they were doing, and why it was slightly different from the way other people did things.

"That example typifies what we call 'jointery' in the armed forces, meaning the three services working together. We've always done it when it comes to the front line, but nowadays we are more joint in terms of our peacetime organisation, administration and the way people are split up. So that requires a particular aspect of leadership to ensure that we keep people focused."

### Humour

"Humour is one of the things that I set great store by. A little bit of humour at a time of crisis often just lifts the mood and gets you focused on something else.

"I remember when I was a junior lieutenant, we visited Malta on an aircraft carrier. We had about 2,500 people on board and of course shore leave was given. Inevitably the next day, the commander would have a long tail of what we called defaulters outside his cabin waiting to be weighed off, i.e. tried. Most of them were simply adrift – late for work that morning.


"The first chap came in and the commander said: 'Right, off caps. What's your story?' to which he got the response: 'Not guilty, sir, I was coming home in a gary.' A gary was a little horse-drawn cab they used to have in Malta. 'The horse died, sir, so I had to walk the rest of the way and that's why I was adrift.' The commander gave him five days' number nines, which was stoppage of leave, extra work and drill. So this one left and the next one came in and when asked for his excuse, he said: 'Well, I was going along, sir, in my gary, and the gary horse died.' He also got five days' number nines. Of course this story was going down the line that you only got five days' number nines if your gary horse had died. Eventually there was a young stoker at the end of the

line who had heard all of this, when he went in and the commander said: 'I suppose your gary horse died?' He responded: "No sir, no sir. My gary horse was fine we just couldn't get past the pile of dead gary horses." Case dismissed.

### Heritage

"I have come to realise that heritage is a much more important issue than perhaps I gave it credit for many years ago, but it's not about museums and relics, it's about people.

"I had gotten to know Henry Allingham – who died in July 2009 aged 113, at the time the world's oldest man – quite well in recent years. He had joined the Royal Naval Air Service in 1915 and was quite astonishing to talk to as someone who was there right at the inception of one's own service. I unashamedly wheeled Henry round to all sorts of places to talk to young people, and he had exactly the same effect on them as he had on me, they were inspired by the fact that there was someone who had been there literally decades ago, right at the start.

"When I qualified as a pilot, the wise old admiral who gave me my wings said: 'When you get to the front line, you will feel fear, but remember this. Never fear the enemy, never fear the danger, only ever fear letting down those who have gone before you.' Henry Allingham brought that back to me; the sense of not just doing a job in the here and now, you belong to something that's got a fantastic foundation, and you feel responsible its future. It's hugely important for any organisation or institution." 

Sir Adrian Johns spoke about his thoughts on leadership at the Alumni Reunion 2009. You can see the full lecture online at [www.imperial.ac.uk/alumni/adrianjohns](http://www.imperial.ac.uk/alumni/adrianjohns). This year's reunion will be taking place on Saturday 25 September 2010, for more information visit [www.imperial.ac.uk/alumni/reunion2010](http://www.imperial.ac.uk/alumni/reunion2010).

# A room of one's own

As the new Eastside and Southside halls of residences are unveiled, *Imperial Matters* takes a look back at their previous incarnations.

> by Alasdair Glen



Halls of residence make up a central part of the university experience for many students. Often the first port of call for arriving students, halls provide more than just accommodation for their residents. The centre of social circles, the starting point for long-term friendships and relationships, and a focal point of both socialising and study, the halls in which a student is placed can have far reaching impact on their life both during and after their time at university.

Many students taking their places in halls at Imperial have been able to enjoy the leafy setting of Prince's Gardens as their immediate surroundings. Although now replaced by newer buildings, the previous halls on the site are still looked back on fondly by their former residents, who relished the chance to live in such an incredible area of London. Of course, Prince's Gardens is now entirely changed from the locale that many of our alumni remember and, in October 2009, after a lengthy period of redevelopment, the new halls of residence were opened to students.

The new state-of-the-art accommodation buildings, Southside and Eastside, offer the current generation of students some of the best facilities possible. Southside is a direct replacement for the old hall of the same name, while Eastside comprises the new Linstead, Gabor and Wilkinson Halls. Sitting alongside the College's high-tech sports centre, *Ethos*, the halls have been designed and built under consultation with the local community and with extensive feedback from students.

The new halls are already proving hugely popular with the residents, and were described by the Knightsbridge Association – which represents local interest on planning applications in the area – as “a great enhancement to the area”. You can read more about the opening of the new halls on page 2. In light of the early success of the new halls, *Imperial Matters* felt this was the ideal time to get back in touch with some of the previous residents there, to ask them about their memories of the old halls and the community of which they were a part.



Linstead Hall, March 1967

**Martin Roden** (Physics 1964) recalls the Prince's Gardens halls as a sociable and enjoyable place to stay: “I spent my first year (1961–62) at Imperial in Beit Hall and then had the final term of my second year in the Southside building when that opened, and was back in Beit for my third year. Obviously the facilities at Southside were fantastic compared to Beit and the bedsit in Notting Hill that I occupied for the first two terms of my second year.

“There was not a great deal of social activity at Beit. I knew my immediate neighbours well and there were occasional parties, but little else. Southside was much better. I guess this was partly because it was new and we were the first occupants, but also the communal kitchen helped you to meet people. It had its own bar downstairs and a gang of us used to meet up at about 21.30 each night and have a few pints to end the evening. We certainly spent a lot of time in each other's rooms and the higher storeys had such great views across South Kensington.”

**Peter Walton** (Chemistry 1961, PhD 1967) has his own memories of the lively social life in the halls, despite their sometimes less than endearing architecture: “I socialised with my classmates living in the halls, generally in the bar and then in

someone's room after the bar closed. I used the bar and the cafeteria every day – the food was OK and the beer was poor (I am from “up north”) but I drank it anyway. The architectural style of the place was cold and spartan – bare concrete everywhere – but it didn't bother me. The common areas were spacious and functional, and I attended lots of parties in the bar during my time there.

“Among the most enjoyable occasions I remember were late night political and philosophical discussions. During those discussions I learned a lot from my classmates about topics I was not familiar with, and I used to go home and try the ideas out on my father in our local pub. He was generally not impressed.”



Linstead Kitchen

## A room of one's own



Southside

**Keith Arundale** (Physics 1974, MSc 1975) also has fond recollections of the recreational side of life in halls: “There was a halls bar on the first floor, in which we all had to take turns serving as it was run by the people staying in the halls. Some of the overseas students didn’t really have any experience of weights and measures, so would just fill glasses to the brim with Scotch!

“The dining facilities were OK, although at one point there were cockroaches and suchlike! Linstead was very sociable though, and completely different from Beit Hall, where I also stayed; although in Beit my room looked out over the quad, so the film society would project out of my window, on to the wall opposite and everyone walking into the quad could see!”

“There were lots of stories of pranks; before I got there, several students had taken apart the warden’s car and put it back together on the first floor landing one night!”

**Chris Norman** (Chemical Engineering 1968) shares the memory of Southside in particular as a place with more than its fair share of practical jokers: “The proximity of so many often bored post-adolescents did, naturally, lead to a lot of ‘youthful high spirits’. It was easy to get into your neighbour’s room by climbing from one window to another; the windows generally being open due to the rooms being overheated. It was not unusual to come in late at night to find your room completely stripped bare – not just your personal things but the bed, the chairs, the desk, the lot. I think somebody tried to get a washbasin out once, but the plumbing problems defeated them. A variation on this was to undo some screws on the inside of the door so as to jam the lock before exiting via the window, which meant a night sleeping in the bath.

“I certainly remember the first night I spent in Southside. I turned up sometime in the afternoon on the Sunday before term started (October 1964) and the place was like a graveyard. I thought I had found the reason for this pinned to a notice board, namely a note signed by no less a person than the Rector himself advising all residents that, on account of the threat of legal action from Southside’s well-heeled neighbours in the adjoining mews, any student making excessive noise would be subject to the most draconian possible disciplinary action.



Southside

“Anyway, having reconciled myself to the fact that my stay at Southside was likely to be a quiet one, I went out to meet an old friend, who was at King’s College London, for a drink in central London. I got back to a still eerily silent hall at about 22.30. Not long after that the pubs shut and, what sounded like a few hundred radios, were simultaneously switched on and the staircases seemed to have been invaded by herds of stampeding wildebeest whose vocal chords had been genetically modified to sound like demented wolves.

“Those not running up and down the stairs were hanging precariously out of the large sliding windows shouting greetings to their neighbours. The place finally fell (almost) silent at about 02.00. So much for the Rector’s warning and the threat of litigation (which, as far as I know, was never implemented). In any case, the mayhem on subsequent nights never quite reached the dizzy heights of the first night’s tsunami.”

While there were doubtless many high-spirited occasions at the halls, former warden **Paul Minton** (Aeronautics 1952) points out that generally Imperial students were exemplary neighbours: “Linstead parties were well-known and well-attended. The only effort made to curtail the noise was to wire lock the top ventilation windows shut to keep noise from the neighbours. Still, in my four years as warden we did not have a single complaint. Over the 16 years I spent in halls my respect for the residents grew and I do not regret a minute of my, and my family’s, time in residence.”

That’s not to say there are no bad memories of the old halls, which were of course occupied during some very trying times: “My worst memory is certainly the ‘winter of discontent’ when we had power cuts during the day. When the supply resumed I had to leave the Department of Civil Engineering for Linstead Hall, climb nine floors, go out onto the balcony and into the plant room, raise a heavy lead covered trap door, walk across the roof and open the lift motor room. I was then able to press the lift motor reset button. All this effort was because no one thought of running a simple cable down to a reset button at the porter’s desk! Owing to the fact this happened a number of times a week, the novelty soon wore off.”



A room in Linstead Hall



One former resident, who has a unique view of the differences between the old and new halls at Prince's Gardens is **Professor Stephen Richardson** (Chemical Engineering 1969, PhD 1975), as the Principal of the Faculty of Engineering, Deputy Rector of the College and a former Falmouth and Linstead Halls resident: "In Falmouth Hall, there



Hallway in Linstead Hall

was one kitchen for over 100 students, and it only had two cookers; also there were washing machines but no driers, and so you always had wet washing hanging in your room.

"There were tumble driers in Linstead Hall, and I remember once that I actually had to save a girl, who'd decided to use one as a hair dryer, from seriously hurting herself; she had her head in the drum, and was holding the on button of the industrial, gas fired tumble dryer! The drum had large paddles on the inside and spun very fast, so I had to sneak up to the power switch and turn it off, as shouting a warning might have made her jump and do some very serious damage to herself.

"I've been to see the new rooms in the halls, which are, of course, lovely. The old ones with the concrete staircases were pretty abysmal when it came to providing social atmosphere, and I imagine that the new rooms are a lot less lonely for the people living there. At one point I thought we might never get rid of the old Southside, and it was a very courageous decision by the College to replace it; it's one of the best decisions that has been made during my time here."

"Over the 16 years I spent in halls my respect for the residents grew and I do not regret a minute of my time there."

The residents of the new halls are by now well settled into life in their new surroundings, and seem to be impressed with the new halls. **Alan Soltani**, a first year Physics undergraduate, said: "My first impressions of Eastside were of an arty and grand looking building due to the design of the blinds in the common room and the balconies," said Alan.

"The building also had a welcoming feel with the big glass doors and the sense of space created by the glass exterior looking into the ground floor. My favourite part of the halls is the shared common room – the table tennis and table football tables supply a much needed atmosphere of friendly competition and it's where I've made lots of my closest friends!

"Now I live here, I take it for granted but it really is one of the nicest halls at Imperial, and I would go as far as to say the country. Friends of mine from other universities, who have visited, reluctantly admit this too!"

While these new residences may not on first inspection resemble the buildings they replace, one thing they definitely have in common is the influence on the future lives of their residents, as shown by **Paul Mellor** (Electrical and Electronic Engineering 1970): "I first kissed my eventual wife at a dance on the ground floor of Linstead Hall. That was a momentous occasion, and 40 years later we remember it well, and I guess must be my best memory from my time there!"



# The inconstant sun

As an atmospheric physicist Joanna Haigh (MSc Physics 1977), Head of the Department of Physics, models the effects of the sun on the Earth's atmosphere.

► Interviewed by Zoë Perkins



## *Could you start by explaining what atmospheric physics is?*

It is the study of physical processes in the atmosphere; understanding the climate and the weather, and the physical reasons why it is as it is and how it might change in the future.

The nice thing about atmospheric physics is it incorporates a lot of different things. So for people who are more mathematically inclined it can include things like fluid dynamics or, if you're interested in thermodynamics, you can look at heat and water vapour in the atmosphere and that side of things. Alternatively, if you're interested in building instruments, you can fly sensors on balloons and measure the composition of the atmosphere or, on the statistics side of things, there's lots of data analysis. So I'm always encouraging people to do atmospheric physics because it's a great subject with lots of applications.

## *So how does your own research fit into these areas?*

My own particular research background is in radiative transfer and by that I mean the transport of electromagnetic radiation

through the atmosphere; both the Sun's radiation coming in and getting absorbed and scattered in the air, and the transfer of heat radiation emitted by the Earth's surface.

From a purely physics perspective there's an awful lot of things about the atmosphere that we don't understand, and of course, it's very classical physics in the sense that it's looking at fluid dynamics and thermodynamics applied to the natural environment. What motivates us really is to try and explain what we see in the environment, what affects it and what might change it in the future, both in terms of local weather but also climate, by which I mean larger areas and larger timescales.

My background has led me to an interest in how solar radiation is absorbed in the atmosphere, so recently I've been looking at how changes in the Sun might affect the climate.

## *What's the background to research into solar variability?*

There were quite dedicated campaigns of measurements of solar radiation going back to the 1930s but they really weren't able to extract any signal in the data that

seemed to be consistent with what you could see in terms of solar activity like sun spot numbers and other measures of solar activity. Indeed, if you have a radiometer that's measuring the strength of the radiation sitting on the ground it will show all sorts of variability but those will almost certainly be due to the effects of the atmosphere above and not to the Sun itself. So historically the amount of electromagnetic radiation coming from the Sun was always referred to as the solar constant because it was believed that it didn't change and, if that were the case, then how could it affect the climate?

As a result it wasn't considered a serious subject as far as meteorologists were concerned.

However, since the late 1970s we've had satellites measuring solar radiation from outside the Earth's atmosphere and they've been able to show that there are changes in the Sun's energy output and total solar irradiance varies by only about a tenth of a per cent over the 11-year solar cycle. This equates to about one watt per square metre in energy flux, which is quite small, but it's indicative that there is some solar variability in solar energy reaching Earth after all.



### *So research into solar variability has come about as a result of the advent of satellites?*

Yes, essentially, although it wasn't until the mid-1990s, when satellite measurements became more advanced, that meteorologists started to seriously consider it as a research area. By this stage the measurements were not just of the total energy coming out of the Sun but also of its spectral composition, so you could see the components in the ultraviolet, visible and the infrared.

These measurements showed that although the total energy output is only changing by about a tenth of a per cent, the variation in some parts of the spectrum is much greater. Ultraviolet light, at about 200-300 nanometres, which is of interest because of its effect on the ozone layer and skin cancer, varies by a few per cent from solar max to solar min. Although a few per cent doesn't sound very much, it's a lot more than a tenth of a per cent.

moisture, sinks down again at about 30 degrees or so latitude where the deserts are, so it's dry, and that air then returns to the equator near the surface. That average circulation is called a Hadley cell and that's part of the general climatology of the atmosphere. What happens when the Sun is more active is that those cells expand latitudinally and so the downward branch is slightly further towards the pole. All the weather patterns that are then outside of the Hadley cell all shift off toward the pole a bit more, including the jet streams and the storm tracks. So it's a change in the large scale circulation but it's most easily observable in mid-latitudes and in the stratosphere.

### *What effect does that have on the weather?*

Through computer modelling, we found that these changes in the circulation of the lower atmosphere had the largest impact at mid-latitudes, around 40-50

very noisy data set, but other scientists have come up with similar findings so it's very persuasive.

### *What's the latest?*

Well I actually submitted a paper this morning [17 February 2010], which hasn't been accepted yet of course, but I'll give you the background. Since 2004 there's been a new satellite called SORCE and for the first time it's been able to measure solar irradiation spectrally resolved right the way across from X-rays to a few microns in the infrared. Solar irradiation has been decreasing by less than a tenth of a per cent because it's been the declining phase of the solar cycle, but the satellite is showing that the changes in ultraviolet light are much larger than previously thought.

Compensating for this, the changes in visible and infrared radiation are the opposite; there's less radiation in those wavelengths when the Sun is more active.

“Since the late 1970s we've had satellites measuring solar radiation from outside the Earth's atmosphere and they've been able to show that there are changes in the Sun's energy output. It's indicative that there is some solar variability after all.”



MARK GARLECK

### *What effect does this radiation have?*

If we concentrate on ultraviolet; it's absorbed in the stratosphere where it produces ozone and causes heating. There are satellite measurements of the atmospheric temperature showing the stratosphere is hotter when the Sun is more active, so the question then arises as to whether that can actually have any effect on the atmosphere below. The research that we've done suggests it can, not just from a radiative perspective, but also through the way that the thermodynamic structure – the heat structure of the atmosphere – influences the lower atmosphere by changing the winds.


There are deep convective clouds in the tropics, which is where the air is rising. That rising air, on average, moves towards the poles and, having lost its

degrees, pretty much where the UK is. We found that the tropical circulations expanded and the mid-latitude storm tracks moved towards the poles.

So although the global picture wasn't terribly different if you happen to live where a storm track is, and if it was going past you in one direction or the other every half solar cycle, you might find an 11-year cycle in your met data. But of course that was only from a model, so it remained to be seen whether this was happening in the real world.

Subsequently we've looked at atmospheric temperature data and we see a very similar pattern. In fact, the model appears to be underestimating the effects that we can see in the real atmosphere, although you do have to bear in mind that it's a small signal in a

Now, I'm not a solar physicist and I don't claim to fully understand, but the experts say that it's entirely plausible that the variations in the profile of solar photosphere mean that this sort of spectrum is plausible and they don't think it's due to anything wrong with the instrument, although of course everybody is checking like mad. So what we've been doing, and what I submitted today, was a paper on how that variation in solar spectrum would affect the atmosphere.

The changes in stratospheric ozone are much larger in some places, and much smaller in other places, than we've previously thought so they should be detectable in satellite data. It will of course, take a few months for the paper to be reviewed, so watch this space. 



› by Anna Codrea-Rado

# Cells blooming in the desert

Professor Michael Schneider from the National Heart and Lung Institute talks to Imperial Matters about his research into cardiac biology.





## Cells blooming in the desert

In January 2009 Professor Michael Schneider was appointed Head of the National Heart and Lung Institute (NHLI) at Imperial College London. His research is primarily focused within the Division of Cardiovascular Science at the NHLI, where he researches the problem of cardiac muscle cell number. The NHLI hosts a discipline-spanning British Heart Foundation Centre of Research Excellence and it is associated with several world class NHS trusts at the forefront of the diagnosis, prevention and treatment of heart disease.

I met Professor Schneider in a part of the South Kensington Campus, as I discovered on the morning of my interview, that my security card is not authorised to access because it houses some of the NHLI's laboratories. Professor Schneider's light and airy office is tucked at the back of the laboratories and faces over the Queen's Tower. Professor Schneider welcomed me into his office, exuding excitement and was evidently keen to share his research findings with me.

**Professor Schneider has always admired Imperial's entrepreneurial culture, and what he describes as a "can-do mentality".**

### Outstanding research

Professor Schneider joined Imperial in 2007 after being "successfully wooed" away from the United States. He cites the motivation for the move as being related to the specific opportunity here to grow cardiovascular science on a large scale. Professor Schneider was also attracted by the fact that a number of his colleagues, whom he had known for a long time and who specialise in similar areas of the clinical science of heart failure, already worked at Imperial. Professor Schneider saw the move to Imperial as an opportunity to build translational programmes, namely bench-to-bedside studies, across a large number of hospitals and cardiovascular populations. Professor Schneider has always admired Imperial's entrepreneurial culture, and what he describes as a "can-do mentality".

In the 2008 Research Assessment Exercise review of UK universities, Imperial was ranked the highest in terms of volume of four-star-rated research in the cardiovascular unit of assessment. Professor Schneider notes that such recognition has a vastly positive impact on the NHLI's ability to secure funding and develop its research. Within the first year of Professor Schneider's arrival, Imperial was awarded £9 million by the British Heart Foundation and established as one of four Centres of Research Excellence. Professor Schneider modestly claims that this was not achieved solely on the basis of his research alone, but rather was dependent on the community within cardiovascular medicine, as well as the external partnerships held by the Institute. >

# Cells blooming in the desert

## The Hollywood film industry analogy

In order to clarify the research process for those from a non-medical background, Professor Schneider likes to use the analogy of the Hollywood film industry: “In Hollywood there are creative people such as writers and directors, and there are producers whose job it is to raise and manage the money. But in science and medicine you have to do both!” Professor Schneider goes on to explain that the kernel of a good grant application is, in the first instance, the addressing of an unmet need. Such a need can be a highly prevalent disease that is a major cause of death and disability; it is this category into which heart and lung diseases fall. By the same token, a rare exotic disease that does not affect many people, but is nonetheless devastating for those affected, is equally an unmet need. Following from this is a gap in the existing information. This is due to either a lack of understanding the fundamental mechanisms and processes underpinning the disease, or a gap in understanding the processes underpinning the normal biology. Professor Schneider then explains that one must have a competitive advantage in being able to solve the problem. “Sometimes that means simply having a really good idea others haven’t had; but more typically the unique selling point is the combination of a good idea and specialist tools and skills with which to test the idea”.

Professor Schneider’s work studies the inability of mammals to repair damaged heart muscle. In some species, like salamanders and zebra fish, there is a remarkable ability to regenerate damaged structures including the limb of the salamander and the fin of the zebra fish. Those species also show clinical evidence of an ability to regenerate heart muscle. In humans, as well as in the mice studies in the laboratory, that capacity for regeneration does not exist to a clinically significant degree. Consequently, what Professor Schneider studies in his laboratory boils down to the problem of heart muscle cell number. This means either finding the exact genetic pathways that respond to stress and cause heart muscle cells to die, or

alternatively finding ways to make new heart muscle bloom in the desert through stem cell technologies.

This stem cell research involves using embryonic stem cells that can turn into heart muscle. What Professor Schneider and his team study is specifically how to adjust and manipulate those cells in order for them to turn into heart muscle selectively, and to generate more heart muscle cells. He points out that it is imperative to accurately understand and execute this process, as one does not want to create the “wrong kinds of cells in the middle of a damaged heart, such as bone or liver”.

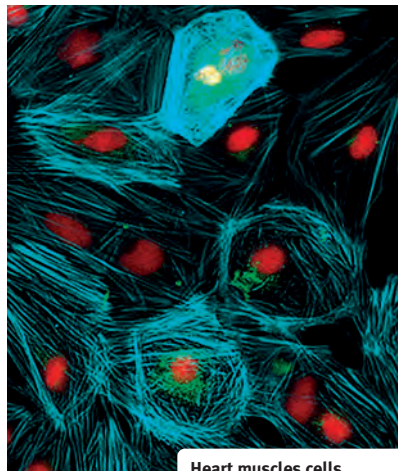
## Combating controversy

Human embryonic stem cell research attracts a certain degree of controversy. Professor Schneider outlined his stance on the issue, commenting that “human embryonic stem cells are typically made from the spare embryos that result as the inevitable consequence of *in vitro* fertilisation programs; any IVF program generates tens of thousands of spare embryos every year. If those embryos are not going to be maintained in liquid nitrogen in perpetuity when they reach the end of five years (the typical length of time an embryo is stored in the UK) they would be destroyed. However, if a small number of them are used to make research tools for the laboratory, or potentially life-saving treatments for patients, it is better than simply discarding them. I think it is helpful to

view embryonic stem cell research in the context of what is very widely accepted for assisted reproduction in IVF clinics.”

Aside from the ethical issues surrounding the use of embryonic stem cells, there are a number of scientific issues which also affect their successful usage. The most significant being that, in order for them to be clinically viable, scientists would need to have a bank of embryonic stem cells much larger than a blood bank, containing every type of tissue that a patient might need to overcome immunological rejection. The alternative to this physical space requirement would be to give the patient immunosuppressive drugs; the same as those administered during a heart transplant. The difference being that, when these drugs are used for a transplant, the outcome is the return to virtually normal of the heart’s pump function; therefore, the risks of immunosuppression are offset by the massive clinical benefit. Professor Schneider observes that, in his experience, even the firmest proponents of stem cell technologies would struggle to suggest that cell grafting in heart disease justifies systematic immunosuppression.

Instead, induced pluripotent cells – the second type of cell Professor Schneider works with and one which has received a lot of international attention in recent years – make cells that functionally resemble embryonic stem cells, starting with cells from a patient’s own skin biopsy.



Heart muscles cells



A female axolotl salamander





“One does not want to create the wrong kinds of cells in the middle of a damaged heart, such as bone or liver.”

### Pleasant surprises

The third type of cell that Professor Schneider studies is the one his laboratory is best known for – stem cells they discovered unexpectedly which reside in the adult heart muscle itself. The discovery was unexpected because adult heart muscle has so little ability to regenerate itself. In experimental studies, however, Professor Schneider’s team have found that they are able to purify cells from the heart. They are then able to pool those cells from a large number of

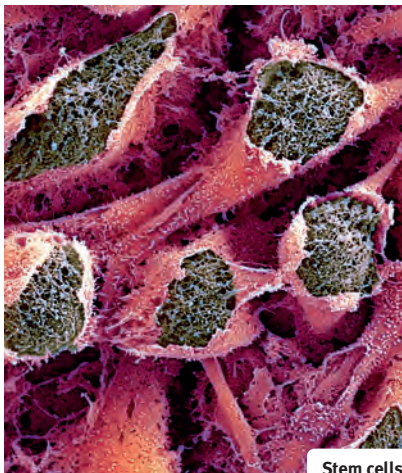
animals in order to get millions of cells that can be injected into an animal that has had an experimental heart attack. The results of these experiments have shown that heart muscle has effectively regenerated. From these findings, Professor Schneider’s team have been able to find the equivalent cell in human heart muscle and are currently working on the best way to purify, grow and stimulate the human heart derived cells which they think will be an improved platform for heart repair.

In order for Professor Schneider’s team to continue progressing with their findings, their laboratory must be kept equipped with the latest instrumentation. During the summer a robotic facility was installed in the laboratory that provides a way for the team to test tens of thousands of conditions in tissue culture to see the optimum way to activate them to become heart muscle. The robot can test hormone-like proteins called growth factors which are known to promote embryonic stem cell differentiation, but they do not know what combination is best for heart muscle creation. The robot is able to test chemical libraries of thousands of small molecules. In similar

facilities in the US, chemical catalysts have been found that drive several of the stems from being undifferentiated into creating new heart muscle. The main benefit of the facility is its ability to work through vast numbers of tissue culture conditions in complex combinations to find the ones that make the cells grow and optimally function.

The future continues to look promising for Professor Schneider’s laboratory; building work began on a 60,000 square foot cardiovascular research centre at the Hammersmith Campus in the summer. The new centre will bring together cardiovascular researchers currently spread across a number of Imperial campuses, which will greatly benefit their research and the NHLI trainees. It will also place the team next to the MRC Clinical Sciences Centre, with which they collaborate closely in a number of areas, including stem cell projects.

Professor Schneider’s ultimate goal is not simply fundamental discoveries in cardiac biology but, more importantly, their conversion into workable therapies that will one day save the lives of thousands of patients with heart conditions. [m](#)



Stem cells

# Connect with others

The Imperial alumni network is based on connections. These connections can range from the personal to the professional. The Alumni Relations team is here to support these connections and to nurture their expansion. We are able to help alumni connect with others in a variety of ways, and the following pages aim to reflect this.

Our international networks are especially useful if you are relocating abroad, or if you travel overseas on business; you can never underestimate the importance of a friendly face. With ever more groups and networks starting across the globe, you are bound to find one for you. You can read more about the latest groups in India on page 35.

We can also help you get back in touch with old classmates through our alumni directory; and don't forget to make sure that your own contact details are up-to-date so that others can get back in touch with you. Turn to page 38 to read the catch up entries of fellow alumni.

The annual Alumni Reunion is a great starting point for connecting with other alumni, so make a note in your diaries of this year's date which is 25 September 2010. The Chemical Engineering class of 1960 demonstrate that reuniting with old friends can also simply mean meeting up in the Old Union Bar for a drink. Turn to page 32 to read more.

In whatever shape or form you wish to participate in the Imperial alumni community, we are here to help you stay connected.

From the beginning of March Alumni Relations Manager, Emma Jones, went on maternity leave and Louise Birrell is covering her position. Mark Atkinson has also joined the team as Alumni Relations Officer. As ever, the team are here to assist alumni in whatever way they can.

## Alumni Relations team

# Expand your professional network

Our online professional networking service enables you to search for, and contact, fellow Imperial College London alumni who have volunteered to provide professional advice based on their personal experience. Whether you're a recent graduate looking for your first job, or a more experienced alumnus looking to move to a new organisation or even a completely new career, this service gives you access to a wealth of experience and knowledge.

You can search for fellow alumni by job title, organisation name, industry and country. Once you've identified individuals, who you think will be able to provide the advice you are looking for, you will be able to contact them through the website, after which they will receive an email containing your contact details and can respond to you directly. If you would like to offer advice to fellow alumni, please make sure you update your account preferences.

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



As well as a professional networking directory, we are also able to offer an individual directory which allows you to search for former classmates and old friends with whom you have lost touch. You can search for alumni by name, education details and country of residence. Make sure the details in your account preferences are correct, so that your former classmates can get back in touch with you too. It's especially important that your email address is up-to-date as you will receive a notification if someone tries to get in touch.

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



## Plan your own event



Alumni at the 2009 Reunion

Whether you are interested in reconnecting with friends, or wish to organise a class reunion or event, the Alumni Relations team is here to help. We know that the thought of planning and organising a reunion can seem a daunting task, but with our help it's simple! Before you get started, you might be interested to know that annual Alumni Reunion is going to be held on **Saturday 25 September 2010**, and all alumni are invited. It's a great opportunity to get your former classmates together and, if you would like to organise a class reunion in conjunction with the Alumni Reunion, we would be delighted to help.

So what can we do to help? In the first instance, the Alumni Relations team can provide you with advice about planning your reunion. We can offer information about suitable venues and catering, or we can put you in touch with the relevant contacts at Imperial who can help you organise College venues, catering and accommodation. We will let you know if the proposed date of your reunion clashes with any important College dates or if there are other alumni events, such as the Alumni Reunion, with which your reunion could combine.

We have a database of 140,000 alumni, which we can search on your behalf to find out how many people in your target group we have contact details for. Due to the constraints of the Data Protection Act, we are unable to give out contact details from our database; however, we can provide you with the names of alumni for whom we hold up-to-date information.

We can also send emails and letters to fellow classmates on your behalf. We recommend that we send an initial email to the group to gauge the level of interest for the reunion and to get some idea of what preferences there are for location and event type. We would encourage that responses be made to you directly. It generally takes a minimum of three weeks for us to produce the requested data and send mailings, so please bear this in mind when planning your event.

We will do what we can to promote your reunion in our communications; this could include a spot in the monthly alumni e-bulletin, a listing on our online event calendar or information in *Imperial Matters*. We would also be happy to feature an online event summary and photographs of your reunion once it has taken place.

If you would like information about organising a reunion, please contact the Alumni Relations team at [alumni@imperial.ac.uk](mailto:alumni@imperial.ac.uk) or by calling +44(0)200 7954 6130. More information about the Alumni Reunion can be found at [www.imperial.ac.uk/alumni/reunion2010](http://www.imperial.ac.uk/alumni/reunion2010).

### › Your alumni magazine

Alumni are always encouraged to contribute to *Imperial Matters*; this is, after all, your magazine. Get in touch with us if you would like to share your news or memories with the wider Imperial alumni community. You can also contact us if there is something in particular that you would like to see featured in the publication – this can be anything from an alumnus of note, to a topical issue or piece of research happening at the College. Email us at [matters@imperial.ac.uk](mailto:matters@imperial.ac.uk).

## Alumni indulge at the Winter Wonderland



On a frosty December evening over 60 alumni and their guests gathered together out of the cold and into the beautifully transformed Senior Common Room, to begin the season's festivities at our alumni Winter Wonderland. Guests were welcomed with a complimentary glass of mulled wine, or a festive cocktail. As the guests sipped on their seasonal swills, the Imperial College Chamber Choir entertained everyone with their selection of Christmas carols.

Guests were treated to a mini Christmas dinner served in a bowl; consisting of cranberry stuffed turkey (or the vegetarian option of nut roast), served on a bed of Brussels sprouts, roast potatoes and parsnips. Needless to say,

these cheerful canapés were swiftly snapped up by all!

Shortly after this, the choir invited guests to join in the singing with them, starting them off with the carol, "Once in Royal David's City". This having warmed up everyone's voices, guests then worked their way through four more carols: "God Rest you Merry Gentlemen", "O Little Town of Bethlehem", "Hark the Herald Angels Sing"; finishing with a rapturous rendition of "O Come All Ye Faithful".

After the singalong, alumni, guests and the choir tucked into well-deserved mince pies and the evening's festivities drew to a close. Alumni made their way home full of festive cheer.

## The John S. Archer Scholarship



In early 2009 a group of alumni from the Department of Earth Sciences and

Engineering set up a scholarship fund in memory of Professor John Archer, in order to support students studying petroleum engineering who run into financial hardship. It is named in memory of John Archer, who was a former Professor of Petroleum Engineering in the Department before becoming a Dean, Pro Rector and Deputy Rector of the College.

The scholarship has been established by a group of Professor Archer's graduate students and associates. They consider this is a fitting tribute to Professor Archer, who, during his tenure at the Imperial, would go out of his way to support PhD students in his department, who were in danger of dropping out due to lack of finance. Their aim is to continue, as he would have done, to help students overcome such financial challenges.

The first John S. Archer Scholarship was awarded to Yok Pongthunya, who said: "It is my honour to be the first recipient of the John Archer Scholarship. The contribution to my academic progress could not have come at a better time, for which I will be forever grateful."

## The RSMA celebrates its 125th Annual Dinner

On 21 November 2009 the Royal School of Mines Association (RSMA) held its 125th Annual Dinner at the Polish Club in South Kensington, which was attended by a record number of 130 guests. It was a very special occasion, with many people travelling from abroad to be there. The RSMA was honoured to have Mr David Weston, a member of the Anglo-American Executive Committee, as its guest speaker.

The first Annual Dinner was held in 1873; 22 years after the establishment of the Royal School of Mines in 1851. From

that time until 1913 the dinners were organised by an informal committee of old students and the Chair. At the 41st Annual Dinner, however, the then Honorary Secretary T.A. Rickard suggested "that it was about time that we did something more than dine together." So the Old Student's Association (later to be called the RSMA) was inaugurated to "foster comradeship, to advance the interests, and to express



the opinion of the old students of the Royal School of Mines."

Those mathematicians among you might have expected the 125th Annual Dinner to have been held in 1997, but as the dinners were suspended during the World Wars, the 125th Annual Dinner was held a few years after the 125th anniversary of the association.



## Boanerges is taken for a test drive

In August 2009, with support from the Old Centralians' Trust, College mascot Boanerges was taken to the Isle of Wight for a week's visit, during which Bo' toured the island and was exhibited at the Isle of Wight Steam Show. The aim was to test Bo's reliability after repairs, and to revive the tradition of making tours.



Bo' leaving the ferry on arrival at Fishbourne



## Walking tours revived

We're pleased to bring you the great news that the City and Guilds College Association's series of London Walks, which were discontinued in December 2007, have now been revived.

A new series of four walks with a qualified London guide has been organised by Dr John Backhurst (Chemical Engineering and Chemical Technology 1962). The first walk took place on Saturday 21 November 2009,

when a party of 18, comprising City and Guilds and Royal School of Mines alumni and their guests, were treated to a fascinating walking tour of the London bridges from Blackfriars Bridge to London Bridge, with historical detail from the guide Malcolm Dick. The event finished with a sociable drink and a bite in a local hostelry. The next event is scheduled for 10 April 2010. For more information see [www.cgca.org.uk](http://www.cgca.org.uk).

## Alumni Regional Drinks

Over three evenings, and across three locations, 100 alumni got together to mark the launch of a new regional drinks programme for Imperial College London alumni in October 2009. Birmingham hosted the inaugural event on Thursday 23 October, which saw around 30 alumni come along to the Living Room in Regency Wharf to enjoy a drink on the College and mingle with fellow graduates living in the West Midlands.

"I had a very pleasant evening with fellow graduates from all ages and faculties of the College," alumnus Peter Wright (Mechanical Engineering 1979) commented. "The fact that I knew none of them before made no difference at all. It was a great event."

The regional alumni road show then moved south east to Oxford where over 45 alumni met at the Oxford Retreat on the edge of the river on Wednesday 28 October. Graduates from 2008 were brought together with those from 1956



and inevitably conversation turned to the changes at the College over the years; as well as the variety of careers Imperial alumni had chosen to follow. By the end of the evening it was agreed by all, that the event should mark the first of many in Oxford. Our week of regional events culminated on Thursday 29 October when 25 alumni came along for a final Imperial get-together in the Living Room on Bristol's harbour side. Although meeting for the first time, several alumni who attended chose to make a night of it

and go out for dinner together, where it was generally agreed that a Bristol and south west alumni group should be established in the near future.

As always the ever-popular business card draw brought each evening to a close. Congratulations go to James Andrew (Mechanical Engineering 1965), Dzan Bon Wong (Mathematics and Computing 2005) and Bayan Mazidian (Physics 2009) who each won a bottle of champagne in Birmingham, Oxford and Bristol respectively.

We would like to thank all alumni who attended our first regional events in Birmingham, Oxford and Bristol. The response has been very positive, and due to their success, we hope to hold further regional events throughout 2010. If you would be interested in learning more about future events, or wish to suggest cities which we should consider for future regional drinks evenings, please contact the Alumni Relations team on +44 (0)20 7594 6130 or at [alumni@imperial.ac.uk](mailto:alumni@imperial.ac.uk).

# Alumni Reunion 2009



The day's events began in earnest with then Rector Sir Roy Anderson's welcome address giving an update on happenings at the College before he went on to introduce the keynote speaker, Sir Adrian Johns, alumnus and former Second Sea Lord and Commander in Chief of the Royal Navy's Naval Home Command. Sir Adrian commented: "Imperial gave me a huge amount, so it was the very least I could do to come back and speak at the reunion." In keeping with the reunion's theme of working together, he discussed leadership in the context of his experiences in the Navy. The audience's appreciation for his enthralling lecture

was demonstrated by the rapturous applause, about which Sir Roy commented: "The applause says it all. Sir Adrian's comments are pertinent to so many walks of life and there were some very important lessons indeed."

As well as lectures, alumni had the opportunity to take part in tours of both the South Kensington and St Mary's campuses. In addition to these tours, groups of 15 were taken up the 324 steps of the Queen's Tower, many recalling ascents from their student days and some climbing for the first time. Once at the top, the general consensus was that the views were well worth the climb.

Judy Beard, Director of

Development, commented: "Four months into my role as Development Director, the reunion was a perfect opportunity for me to meet and greet Imperial alumni from six decades and 18 countries. Fascinating they were too. With glorious weather and a rousing opener from Sir Adrian Johns, the day was set fair. Judging by the feedback, alumni thought so too."

You can read more about Sir Adrian Johns on page 14, and do make a note in your diaries that the next Alumni Reunion is planned for 25 September 2010. For more information, please visit [www.imperial.ac.uk/alumni/reunion2010](http://www.imperial.ac.uk/alumni/reunion2010).



## Fifty year reunion for the Chemical Engineering class of 1960

To mark 50 years since their graduation, the Chemical Engineers of 1960 met in the Old Union Bar to celebrate this milestone. Those pictured, from left to right: Jim Friend, Alan Nethercott, Malcolm Cross, Tony Davis, Alan Cleugh, Richard Lee, Paul Gallagher, David Martin, Michael Heath, Barry Daniels and Don Latimer. If your class has reunited recently, we'd like to hear from you. Email us at [matters@imperial.ac.uk](mailto:matters@imperial.ac.uk).



## Student callers stay up all night



During the Annual Fund autumn telethon student callers contacted Imperial alumni to keep them informed about life on campus and the work of the Annual Fund, as well as to ask them to consider supporting the fund through a charitable donation.

The telethon is a bi-annual fundraising appeal, which employs current Imperial students as callers to contact alumni across the world. In order to reach the wide range of College alumni living in North America, the student callers geared up for several all-night sessions, calling from the ICT helpdesk at the South Kensington Campus throughout the night to reach alumni in the USA and Canada during their daytime. A typical overnight shift ran from midnight to 04.00.

Imperial has strong connection with its North American alumni; there are numerous alumni associations which operate across the continent and strong support for the Annual Fund. In order to cater for this support, alumni in the USA are invited to direct charitable donations to the Imperial College Foundation, a non-profit corporation that exists to support the pursuit of excellence at the College. The Foundation provides a way for alumni in the USA to give tax deductible gifts to the College. These gifts support key

College projects, including student scholarships through the Student Opportunities Fund.

“The overnight calling sessions are a great part of working at the telethon,” said student caller James Price, currently in the second year of his medical degree. “It’s really interesting to contact alumni in the USA and Canada, as their experiences can be so different to those in the UK; comparing the way that different alumni have chosen to continue their careers after leaving Imperial has given me a real insight into what I might want to do after I leave the College. There’s a brilliant atmosphere amongst the callers during these sessions as well. Being up together at this time of the morning working together and having fun really makes it feel like we’re doing something special!”

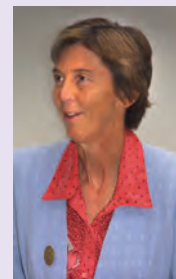
The telethon ran overnight calling sessions on 12 November and 19 November 2009. In addition to the USA and Canada, alumni in South Africa, Europe and the UK were contacted. The telethon is possible because of the kind support of ICT, which provides equipment and space for the campaign.

For more information about the Annual Fund, please visit [www.imperial.ac.uk/alumni/annualfund](http://www.imperial.ac.uk/alumni/annualfund).

## Awards and Honours

The New Year Honours recognise outstanding achievement and service across the whole UK community. In the 2010 list, five Imperial College London alumni were recognised:

**Dr Susan E. Ion**  
(Metallurgy and Minerals Science 1976, PhD 1979),  
Visiting Professor at Imperial College London and Chair of the UK



Fusion Advisory Board, received a DBE for her services to science and engineering.



**Professor Donal D.C. Bradley** (Physics 1983), Lee-Lucas Professor of Experimental Physics and Deputy Principal of the Faculty of

Natural Sciences, Imperial College London, was appointed a CBE for services to science.

**Miss Rosalyn E. Richardson** (Physics 1971), Lately Deputy Director of Health Informatics, Nottingham University Hospitals NHS Trust, was honoured with an MBE for services to the NHS.

**Dr Anthony Dunne** (Physics 1990, PhD 1993) was awarded an OBE for services to the Ministry of Defence.

**Dr Alison F. Campbell** (PhD Chemistry 1988), Managing Director of King’s College London Business Ltd, received an OBE for her services to knowledge transfer.



## New President for Imperial College Alumni Association of Singapore

The Imperial College Alumni Association of Singapore (ICAAS) elected a new executive committee at the group's 32nd Annual General Meeting on 9 October 2009. Tan Hang Cheong (Computing and Control 1978) was elected as President, about which he commented: "It is an honour to be elected President of the alumni association of my *alma mater*. I thank my fellow alumni for this privilege to serve."

Mr Tan's predecessor, Dr Lee Hing-Yan (Computing and Control 1981, MSc Management Science 1982), is stepping down from the position after four years. Dr Lee is currently the Deputy Director of the Singapore National Grid Office. He obtained his undergraduate degree from Imperial's Department of Computing, and later an MSc in Management Science.

Emma Jones, Alumni Relations Manager at Imperial College London, expressed the College's gratitude for Dr Lee Hing-Yan's dedication to the association: "We would like to take this opportunity to thank Dr Lee Hing-Yan for his hard work, support and enthusiasm for Imperial College London during his tenure as President and before. ICAAS would not be the success it is today without his contribution."

As the new President, Tan Hang Cheong plans to build upon his predecessor's successes in order to forge a "closer bond amongst Imperial's community in Singapore." Thanking his predecessor, Tan Hang Cheong said: "The association thanks Dr Lee Hing-Yan for his service and looks forward to his continued involvement in the association."

### The current executive committee of the ICAAS is comprised of:

President:

Tan Hang Cheong

Vice President:

Oh Lock Soon  
(MSc Civil Engineering 1993)

Honorary Secretary:

Yap Tiong Peng (Bioengineering 2008)

Honorary Treasurer:

Kuan Tek Seang (MEng Aeronautics 1996, PhD Mechanical Engineering 2003)

Members:

Ling Ming Koon (Mechanical Engineering 2000) and Chen Hung (MSc Civil Engineering 1967)

Youth Wing Chairman:

Lee Yew Wei (Electrical and Electronic Engineering 2005)

Co-opted members:

Tang Wey Lin (MEng Mechanical Engineering 2005), Raymond Kwok (Mathematics 1974) and Bernard Lee (MSc Management Science 2003)

Honorary Auditors:

Alex Fung (MSc Management Science 1981) and Anthony Ong (MBA 2002)



## Singapore launch new alumni website

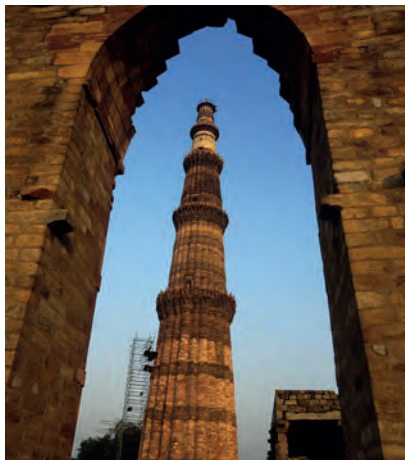
The Imperial College Alumni Association of Singapore has become the first alumni group to launch a new website under the College's official domain name at [www.imperial.ac.uk/alumni/singapore](http://www.imperial.ac.uk/alumni/singapore). The new website will run alongside the association's already well-established stand-alone website at [www.icaas.org](http://www.icaas.org) but has some new features and gives the association a greater presence on the main alumni website.

One exciting new feature is an online directory which enables visitors, who have registered for and logged in to the new website, to search for other

Imperial alumni who are living or working in Singapore. Those alumni who have an email address for can be contacted through the website, and we hope that those of you living in Singapore will make the most of this new networking opportunity. You'll also find details of forthcoming events, the latest news from the association and much more online.

Over the next few months more alumni groups will be launching their own websites under the College's domain name and we'll bring you news of these as they happen.





## Three new chapters launched in India

Delhi, Kolkata and Mumbai are home to three brand new alumni chapters as part of the expanding Imperial College Alumni Association of India. From Madurai in the south and Amritsar in the north to Hyderabad in the west and Jorhat in the east, Imperial alumni can be found in every corner of the world's largest democracy, and these three new chapters, launched in February 2010, aim to bring together the 750-strong Imperial alumni community. As three

of the four largest cities in India, it's not surprising that these cities are also home to a combined total of 327 Imperial College London alumni. If you would like more information about the three new chapters or the main association, please visit [www.imperial.ac.uk/alumni/india](http://www.imperial.ac.uk/alumni/india).

We look forward to bringing you more news from each of the three new chapters as they grow and flourish.

## Festive frolics in Hong Kong

The Imperial College Alumni Association of Hong Kong held their Christmas party on 11 December 2009 at Aria, a cosy restaurant and bar. More than 50 alumni joined the party, some with their families and friends.

Dr Shen (MSc Mathematics 1979), Chairperson of the association, welcomed alumni and special guests for the evening: Judy Beard, Director of Development, and Emma Jones, Alumni Relations Manager, from Imperial College London.

Alumni chatted while enjoying great food, drinks and music. Some group games were played by alumni with a lucky draw towards the end of the party – the highlight of the night! The first prize, an iPod, went to Raymond Chan, and the second prize, a bottle of vintage wine, went to Mr K.C. Liu. All in all, it was a fabulous occasion for a blessed friendship through a merry Christmas gathering!



## World record holder at Imperial College Alumni Association of Northern California dinner

Torrential rain broke briefly on 23 January 2010 to allow 33 stalwarts of the Imperial College Alumni Association of Northern California to gather and reminisce. Hosts Angela Hey and her husband opened their home near Palo Alto for a pot luck dinner of English dishes. Needless to say British brews and Californian wines flowed freely, although consumption was down!

After dinner Richard Jenkins (Mechanical Engineering 2000) described his 10-year odyssey to break the wind powered land speed record at 126.2 mph, on 26 March 2009. It was not only a story of outstanding engineering, but one of skill, dedication, vision, goal setting, pragmatism and optimism. All those present were able to draw inspiration from what Richard was saying.

Fabian Schmidt and the outgoing board were thanked for their work in 2009, and Howard Wise and Jenny Wang were elected as President and Secretary respectively for 2010.



## Ambassador visit to Beijing



Professor Nigel Brandon (PhD Mineral Resources Engineering 1985), Executive Director of the Energy Futures Lab and Shell Chair in Sustainable Development in Energy at Imperial College London, joined alumni in Beijing on Saturday 24 October 2009 to share the latest developments in renewable energy. During his talk entitled *Engineering our Energy Future*, Professor Brandon spoke of the latest technological advancement of hydrogen fuel cells which resulted in a flurry of questions from the 40-strong audience.

Organised by Zhuohui Luo (MBA 2001), Secretary General of Imperial College Alumni Association of China,

Beijing, on behalf of the association and the Western Returned Scholars Association (WRSA), the event brought together alumni from a number of UK universities. However, Imperial alumni were treated to an exclusive session with Professor Brandon, who updated them on the most recent developments at the College. To round off the day, the ICAAC hosted a sumptuous dinner for Professor Brandon and the lecture attendees at the Man De Lou restaurant.

If you would like to become involved in future alumni activities in China, please contact the Alumni Relations team at [alumni-international@imperial.ac.uk](mailto:alumni-international@imperial.ac.uk).

## ICAAHK run for Sichuan

A team of runners from the Imperial College Alumni Association of Hong Kong (ICAAHK) got together on a cool Sunday morning in late November to join UNICEF's half marathon in aid of the rebuilding programme in Sichuan Province, China, following the earthquake on 8 May 2009. The ICAHK runners were among several thousand who donned their running shoes for the marathon at the Hong Kong Disneyland Resort and Sunny Bay. The runners rose before dawn bubbling with enthusiasm and excitement, and ran the 21 kilometre half marathon route with the earthquake-stricken children of Sichuan Province at the forefront of their minds.





## The Imperial alumni network spans the globe

Imperial College London alumni can be found in every corner of the world and the information below illustrates just how truly international our network is.

### Top 10 countries with Imperial alumni residents

1.	Greece	3,036
2.	United States	3,003
3.	Hong Kong	1,896
4.	France	1,800
5.	Singapore	1,752
6.	Malaysia	1,707
7.	Germany	1,412
8.	Australia	1,387
9.	Canada	1,318
10.	China	1,012

### Germany

The Imperial College Club of Germany (ICCG) recently celebrated its 10-year anniversary at an event in Strasbourg in September 2009. There are 1,412 alumni in Germany and the ICCG has over 50 members.

### Australia

The 1,387 alumni in Australia can join the following groups: **Imperial College Alumni Association of New South Wales, Imperial College Alumni Association of Victoria (IC in VIC) and Imperial College Alumni Association of Western Australia**. Contact details for all these groups can be obtained through the Alumni Relations team.

### United States

There are 3,003 alumni across the United States. There are currently three groups in operation: **Imperial College Alumni Association of Northern California, Imperial College Exiles North America East (ICENAE) and Imperial College Alumni Network in Chicago**

If you would like to be involved in any of these groups, please visit [www.imperial.ac.uk/alumni/international](http://www.imperial.ac.uk/alumni/international) for more information.

You can find more information about all of the Imperial alumni groups at [www.imperial.ac.uk/alumni/groupsandnetworks](http://www.imperial.ac.uk/alumni/groupsandnetworks). If you would like to join a group near you, or are interested in starting one, don't hesitate to get in touch with the Alumni Relations team on [alumni-international@imperial.ac.uk](mailto:alumni-international@imperial.ac.uk) or +44 (0)20 1954 6131.

### Colombia

Michael Colijn (Environmental Technology 1997) has been busy rallying the Imperial troops in a bid to start an alumni group in Colombia. A dinner was held at Andres Carnes des DC restaurant in El Retiro. If you would like to get involved with the group, contact Michael directly at [mcolijn@hotmail.com](mailto:mcolijn@hotmail.com).

### Singapore

The Imperial College Alumni Association of Singapore (ICAAS) is a group for those alumni who reside or work in Singapore. There are currently 1,752 alumni in Singapore, making it one of the largest concentrations of Imperial alumni abroad.

# catch up

## 1940S

### Edgar Moss

Chemical Engineering and Applied Chemistry 1945

I am living at Fordingbridge in the New Forest (a delightful spot) and take part a lot in the community here, being Chairman of the Fordingbridge Society, as well as of our Community Forum. My present battle is with the Council to get planning permission for an air-type heat pump to warm my bungalow. I had a solar panel fitted some eight years ago for the hot water and that, by this time, has just about paid for itself. Of course it's the technology that keeps me interested in everything like this, not the initial cost!

I wonder how many of my old friends of those past days are still alive and kicking?

### Manfred Kosten

Mining 1949

In 1986 I took up a post at the Greater London Council to train and support London Borough staff, ILEA teachers and others. I co-authored *Managing Data Protection* as well as the quarterly *Data Protection News*, and specialised in letters to the press, explaining, defending and praising the legislation. But 50 years after Imperial, I concluded that even a most satisfying job had to end.

## 1950S

### David Rowe and Richard Barry

Civil Engineering 1959 and Mining 1958

David Rowe (see picture below) and Richard Barry put their elite education to good use.

### Michael New

Botany 1954

Michael New, who was awarded an OBE in 1999 for his services to aquaculture in developing countries, has been awarded the World Aquaculture Society Exemplary Service Gold Medal.

This honour, which was conferred at the World Aquaculture 2009 meeting in Veracruz, Mexico on 26 September 2009, has been awarded only 10 times in the 40-year history of the society.

## 1960S

### David Brannan

PhD Mathematics 1967

After Imperial, I held academic posts in the USA, Glasgow and London; ending up at the Open University. I retired in 2007.



David Rowe and Richard Barry bulb planting in Stamford, Lincolnshire

### Spotlight on Professor K.K. Phua

Professor Phua (Physics 1967) was elected as a Fellow of the American Physical Society in December 2009. Professor Phua is a theoretical high-energy physicist and his work interest is in the field of phenomenology in high energy collisions. He is the Founding President of the South East Asia Theoretical Physics Association. Together with the Nobel Laureate Professor C.N. Yang and other senior physicists, he is one of the founding council members of the Association of Asia-Pacific Physical Society. Professor Phua has also been awarded the President's Award by the Institute of Physics Singapore Council for his outstanding contributions to physics research and education in Singapore.





**Spotlight on Michael Dixon**

The Darwin Centre at London's Natural History Museum has opened after being overseen throughout its development by Museum Director and Imperial alumnus Michael Dixon (Botany and Plant Technology 1977).

Speaking to *The Times*, Dr Dixon commented: "We are as much an important scientific-research institute as a place of public education and entertainment. Our vision is to advance knowledge about the natural world to inspire better care of the planet. It is about making a difference – making people who visit here feel differently about our planet and natural resources."

Dr Dixon has been the Director of the Natural History Museum for over four years, joining the museum from the Zoological Society of London (ZSL), where he worked as Director General. While at the ZSL, he spearheaded the society's involvement

in a major new £80 million aquarium at Silvertown Quays in London Docklands, and created plans for the redevelopment of London and Whipsnade Zoos. Dr Dixon studied Zoology at Imperial, before embarking on postgraduate work at the University of York.



**Ruben Fair**

Electrical Engineering 1985

I worked with GEC-Alsthom Large Machines Ltd, Rugby from 1988 to 1994. I left to work for Oxford Instruments Superconductivity (NanoScience). I am now working for Converteam in Rugby, building our first superconducting hydroelectric power generator. I am married with two children and living in Brackley, Northamptonshire.

**Lester Anderson**

MSc Geology 1988



I am currently studying for a PhD at the British Antarctic Survey working on the structural interpretation of gravity and magnetic data from east Antarctica, including numerical and mechanical modelling of data. I have been researching my family genealogy and found some new cousins I never knew about, and also relatives in New Zealand! Now I have lots of extended family links.

**Simon Day**

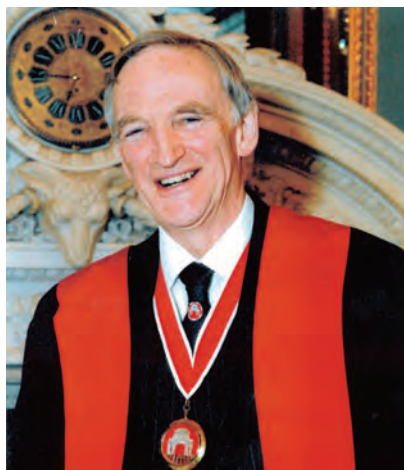
Mineral Resources Engineering 1989

Twenty-five years on from starting at the Royal School of Mines, I am working in the UK quarrying industry. I would be keen to contact any 1985-89 vintage Miners with a view to meeting up in the New Year; and any former RSM football team members.

**Roger France**

MSc Civil Engineering 1965

Since my time at Imperial I have lectured in London and Oxford, setting up the first collaborative taught Master's course between the two universities in 1990. I established the Conservation Course Directors Forum, and have just been elected as Master of the Worshipful Company of Chartered Architects. I always give an extra cheer when I catch sight of Bo' in the Lord Mayor's Show each year.



**1970s**

**Norman Balfour**

Physics 1970

I set up Balfour Design in 1975 and am committed to applying technology in the business process. I joined a small telecoms company and helped it grow from £2 million capitalisation to £600 million as Director of Data Relations. I am looking to repeat this with an emerging high tech start up. My offspring are making good progress. Abigail gained her BSc and MSc in Psychology from Lancaster. David read Mechanical Engineering at Imperial and King's College London. Catriona read French and Linguistics at Hertford College, Oxford. And Stephanie, studying at Birkenhead High School, is promising to show her siblings how it should be done!

**1980s**

**Karen Hardy**

Botany and Plant Technology 1980

Having supported me on my epic walk in the summer of 2009 from Land's End to John O'Groats, the lovely Mike proposed and we married in September.

1990s

**Jason Owen**

Computing 1992

Still in London and working for Deloitte in central government. Is it really 20 years since we all started at Imperial?

**Shiu Ng**

MSc Civil Engineering 1993

After my MSc in Structural Steel Design in 1993, I returned to my employer, Arup, and worked there for another seven years before embarking on my own consultancy business. My business specialises in steel design and fabrication. During my time at

Imperial, I was a resident in Beit Hall and hoped to remain in contact with the some of the residents there.

2000s

**Echo Chong**

MBA 2005

I have worked as an Investment Accountant at the Wellcome Trust following my MBA. The experience has been great and I have enjoyed the exposure to the large and complex portfolio that Wellcome has. It has been hard work; but I am going to spend three weeks in California in September and can't wait.

**Spotlight on Kirsty Moore**

Kirsty Moore, who obtained a Master's in Aeronautical Engineering from Imperial College London in 1999, is the first female pilot to join Britain's renowned Red Arrows aerobatic display team.

Flight Lieutenant Moore will perform with the Royal Air Force display team until 2012 after becoming the first female fast-jet pilot to advance enough in her flying career to qualify. Moore said of the appointment: "It's an awesome job. To be told I had been selected was one of the best days of my life. It was incredible."

The Red Arrows jets are a firm fixture at national events such as the Queen's birthday; and at air shows at home and abroad, performing heart-stopping loops and turns in tight formation. Since their creation in 1965, they have given over 4,200 displays in 53 countries.

Professor Stephen Richardson, Deputy Rector and Principal of the Faculty of Engineering, said of the achievement: "It is always most pleasing to hear stories of how Imperial graduates have



gone on to achieve great things in their chosen careers."

Moore, who was picked from up to 40 applicants, credited her father Robbie Stewart, a retired RAF navigator, for inspiring her to join up after studying for her MSc at Imperial.

"Hopefully in a small way, my being a Red Arrows pilot might inspire some girls to think that this is something they could be part of and that they should go for it," she added.



**Spotlight on**

**Mr Tan Kee Yong**

Mr Tan Kee Yong (Mathematics 1980) was appointed the new Cabinet Secretary and Secretary to the Prime Minister of Singapore in December 2009. Mr Tan graduated from Imperial College London in 1980 with a degree in Mathematics on an Overseas Merit Scholarship. In 1996 Mr Tan was awarded the Public Administration Silver Medal by the President of Singapore for his contributions to public services.

He has served in various capacities in the Singaporean government – he was the Deputy Secretary at the Ministry of Education, Chief Executive of the Singapore Land Authority and Deputy Secretary at the Ministry of Defence.

**Suhaib Fahmy**

MEng Electrical and Electronic Engineering 2003, PhD 2006

After completing my MEng and PhD at Imperial, I moved to Ireland, where I was a Postdoctoral Research Fellow at Trinity College Dublin for two years, working on adaptive systems with Xilinx Inc.

I'm now about to join Nanyang Technological University in Singapore as Assistant Professor in the School of Computer Engineering.

➤ Make sure you keep us updated with your life post-Imperial; we would love to hear from you. Visit [www.imperial.ac.uk/alumni/catchup](http://www.imperial.ac.uk/alumni/catchup) to view more updates from other alumni or to submit your own update. Alternatively you can email us at [matters@imperial.ac.uk](mailto:matters@imperial.ac.uk) or write to us at *Imperial Matters*, Imperial College London, Level 2 Faculty Building, South Kensington Campus, London SW7 2AZ.



# books

## Footprints in the Ash

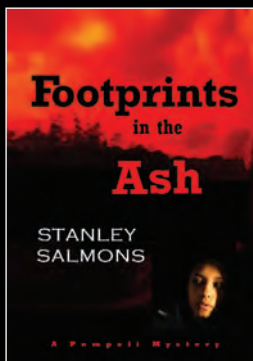
**Stanley Salmons**

(Physics 1961)

On the mountain slopes south of Pompeii, a group of Roman citizens flee the doomed city, leaving their footprints in a layer of volcanic ash. Two thousand years later the footprints are rediscovered, and a joint Anglo-Italian dig is set up. Eminent Oxford archaeologist Professor Julian Lockhart unearths an exciting find, but then he vanishes mysteriously. English detectives Nick Roberts and Lucia Fabri go out to assist the Italian police with the investigation, unaware of the sinister forces – both human and natural – that lie in wait for them. Their subsequent race for survival sweeps them up in an eerie re-enactment of historical events.

Fitting his narrative to a carefully researched historical and geological background, Stanley Salmons has woven an exciting and original debut crime thriller that evokes the authentic atmospheres of southern Italy and of Pompeii in Roman times.

UKA PRESS; ISBN 978-1905796175



## Their Cancer, Your Journey

**Anne Orchard**

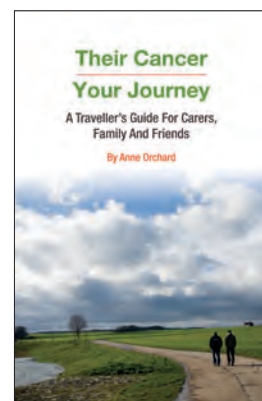
(Computing 1986)

Statistics show that one in three of us will be affected by cancer at some point. The diagnosis of a loved one with cancer is a growing commonality that nobody wants to have to deal with. Yet it is not just the sufferer who is affected by the disease. As anyone who has cared for a cancer sufferer can tell you, it is a daunting and emotional journey, and the carer's own emotional needs can be overlooked. Many simply want to ask, how do I cope?

Renowned author Anne Orchard aims to answer this complex question in her book *Their Cancer, Your Journey*. Anne writes from poignant personal experience to show carers how to deal with this momentous challenge. Both her mother and mother-in-law were diagnosed with cancer and her experience of caring for them led to the writing of this book.

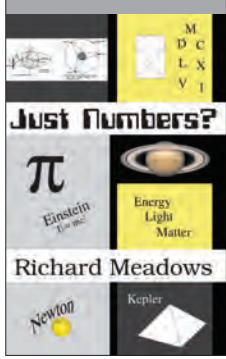
“There was some practical support available to us as a family, but the process on the whole was very traumatic,” said Anne. “Emotionally, we felt like we just coped as best as we could.”

RAINBOW HEART PUBLISHING; ISBN 978-0955979705



## Just numbers?

**Richard Meadows** (Physics 1959)



Numbers enter our lives in every way. They have powerful significance in describing our world and are thought to possess mystical and even magical properties by many.

The book considers the early development of numbers, the special numbers of pi and phi (the golden number) and the consequences of Fibonacci's famous series. It looks at the constants of gravity, the velocity of light and Avogadro's number. The contributions made by many famous philosophers are traced: Galileo, Kepler, Newton, Einstein, Hoyle and Martin Rees. Chapters on applications to telecommunications, electromagnetic waves and Einstein's revolutionary contribution including  $E=mc^2$  are included together with a survey of our solar system and potential hazards we may meet. It concludes with just six numbers, numbers which can be thought of as defining not only our world but the whole universe: its formation and future.

AUTHORS ONLINE; ISBN 978-0755211463

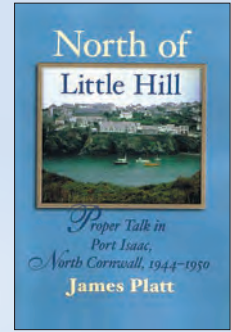
## North of Little Hill

**Jim Platt**  
(Mining Geology 1960)

The language spoken among the pupils of the Port Isaac County Primary School in North Cornwall in the late 1940s incorporated a dialect as full, rich and rounded as clotted cream. The accent of delivery was slow, open and rolling, not unlike the steady swell of the mighty Atlantic washing against the rugged slate coastline of Port Isaac Bay. Its characteristics owed a tribute to the enduring traditions of an isolated coastal community; yet for all that, its stature was vibrant with the additive benefits of the natural evolution that comes from steady usage.

Under pressure from the social, mobility and media revolutions of later years, rural backwaters like Port Isaac have tended to lose their uniqueness, one clear result being the demise of local dialect, which slipped away piecemeal in the grip of time, its departure barely noticed until it was complete. This book records that Port Isaac dialect of latter days, focused on its wonderful vein of wit, humour and expression, now long gone, but ever worthy in memory.

CREIGHTON BOOKS, ISBN 978-9080780859



more  
books  
by  
alumni >

> Recently published Imperial alumni and their books are also listed on the alumni website at [www.imperial.ac.uk/alumni/books](http://www.imperial.ac.uk/alumni/books).

### The design of prestressed Concrete Bridges: concepts and principles by Robert Benaim

*The Design of Prestressed Concrete Bridges: concepts and principles* draws on the experience of Robert Benaim (Civil Engineering 1960) who founded and ran his own structural and civil engineering practice for 20 years. The book addresses the design of bridges and the choices the engineer has to make in the conceptual stage of bridge design.

TAYLOR AND FRANCIS; ISBN 978-0415235990

### A Journey with Time by Robert Jaggs-Fowler

*A Journey with Time* is Robert Jaggs-Fowler's (Charing Cross and Westminster Medical School 1985) first collection of poems, the subject matter drawing on his love of nature, travel, books and music, as well as exploring the more intense emotions of love and loss. At times amusing, often poignant, *A Journey with Time* reveals the inner workings of a sensitive human being who is in touch with far more than just life's daily toil.

LULU.COM; ISBN 978-1409228448





# in memoriam

It is with regret that we announce the death of the following alumni of Imperial College London, the constituent medical schools and Wye College. Alumni are listed according to their year of graduation. When an alumnus has obtained more than one degree from the College they are listed according to the graduation year 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.

## 1930s

Dr Louis Collins (Charing Cross Medical School 1937)  
Mr E.R. Dinnis (Wye College 1939)  
Dr Reginald E. Goddard (Chemistry 1939, PhD 1941)  
Dr Allan M. Greenhow (Chemistry 1939, PhD 1942)  
\* Mr Ian A. Macdonald (Mechanical Engineering and Motive Power 1937)  
\* Emeritus Professor Ronald G. Mason (Physics 1938, MSc 1939)  
Professor Emeritus Dennis F. Orchard (Civil Engineering and Surveying 1935, PhD 1937)  
Dr Arthur C.D. Parsons (Westminster Medical School 1937)  
\* Major General Denis A.K. Redman (Electrical Engineering 1930)  
Mrs M. K. Tipler (Wye College 1933)  
\* Mr Gerald R. Underwood (Chemistry 1939, DIC Chemical Engineering 1941)  
Dr Jack K.H. Wilde (Biology 1936)

## 1940s

Mr L. Allen (Wye College 1949)  
Dr Bernard Atkinson (Chemistry 1944, PhD 1951)  
Mr Howard A.S. Bristow (Chemistry 1948, DIC 1950)  
Mr George Brombley (Electrical Engineering 1944)  
Dr Jehoiada J. Brown, FRCP, FRSE (St Mary's Hospital Medical School 1949)  
Dr Clement Chave-Cox (Westminster Medical School 1949)  
Mr Edward H. Cole (Mechanical Engineering and Motive Power 1944)  
Dr Anthony C. Davis (Chemistry 1947, PhD 1949)  
Mr John E. Davis (Physics 1943)  
Dr John S. Dryden (PhD Electrical Engineering 1949)  
Mr Geoffrey A. Emery (Electrical Engineering 1943)  
\* Mr Sidney T. Flannery (Electrical Engineering 1940)  
Mr David N. Gifford (Metallurgy 1947)  
Mr Howard W.J. Henn (Chemistry 1947)  
Dr George D. Lumb (Westminster Medical School 1943)  
Mrs E. Moore (Wye College 1944)  
Mr Richard Pare (Chemistry 1942)  
Mr John K. Pickett (DIC Civil Engineering, DIC 1947)  
Mr Dennis H. Phillips (Wye College 1940)  
Dr Victor A. Phillips (Metallurgy 1944)  
Mr Alan P. Roberts (Physics 1942)  
Mr Matthew D.L. Rome (Mechanical Engineering and Motive Power 1944)  
Dr Gerald G. Rose (Chemistry 1941, PhD 1943)  
Dr David V. Salkeld (Charing Cross Medical School 1946)  
Mr John D. Shapland (Chemical Engineering and Applied Chemistry 1947)  
Mr Brian R. Sheppard (Mining 1946)  
Mr Brian G. Smith (Civil Engineering 1947)  
Dr Peter Smith (Chemistry 1944, PhD 1951)  
Mr Roderick J. Tolley (Metallurgy 1948)  
Mr Bernard A. Ward (Mathematics 1947, DIC 1948)  
Mr Charles I. Watson (Civil Engineering and Surveying 1941)  
\* Professor Olgierd C. Zienkiewicz (Civil Engineering and Surveying 1943, PhD 1945)

## 1950s

Professor Donald Bartrop (Charing Cross Medical School 1956)  
Mr Roger E. Barnes (Mining 1950)  
Professor Anthony R. Barringer (Mining 1951, PhD 1954)  
Dr Michael J.P. Berkley (St Mary's Hospital Medical School 1957)

Professor Emeritus John A. Bevan (Westminster Medical School 1953)  
Dr Alan R. Broadbent (Westminster Medical School 1956)  
\* Dr Thomas D. Brogan (St Mary's Hospital Medical School 1959)  
Dr Anton Brown (Mining 1953, MSc 1955)  
\* Mr Malcolm D.C. Campbell (Chemistry 1954)  
Mr James A.S. Chapman (Civil Engineering 1957)  
Mr Christopher J. Charles (Mechanical Engineering 1959)  
\* Dr Terence K. Clarke, OBE (Westminster Medical School 1957)  
\* Mr Donald G. Cole (Chemistry 1959)  
Mr R. John Collins (Civil Engineering 1952)  
Dr Robert G. Cope (Metallurgy 1953, PhD 1955)  
Dr Brian P. Dillon (St Mary's Hospital Medical School 1957)  
Mr George M. Emsley (Mechanical Engineering 1954)  
Dr R. R.W. Folley (Wye College 1953)  
Mr Alan G. Fricker (Chemistry 1959, MSc Mining and Mineral Technology 1969)  
Dr Alan S. Gardiner, FRCA (Charing Cross Medical School 1951)  
Dr Clive Hackett (Botany and Plant Technology 1959, PhD 1962)  
Professor Emeritus Arthur S. Hall (Civil Engineering 1953)  
Mr Richard H. Hirst (Wye College 1953)  
Captain John M.L. Hughes (Mechanical Engineering 1959)  
Mr Julian M. Jacobs (Chemistry 1958, MSc 1959)  
Dr David C.O. James, FRCPath (Westminster Medical School 1954)  
Mr Roy A. Jeffreys (MSc Physics 1952)  
Mr Aravinda V. Joshi (DIC Civil Engineering 1954)  
\* Dr Montague P. Joyston-Bechal (Westminster Medical School 1954)  
\* Dr Ahmed K.E.D.L. Moussa (PhD Civil Engineering 1956)  
Dr Peter E. Liley (Physics 1950, DIC Chemical Engineering 1955)  
\* Dr Victor J.E.D. Lobo (St Mary's Hospital Medical School 1959)  
Dr Dennis C. Lowe (Chemistry 1950, PhD 1953)  
Mr Paul B. Matthews (Mechanical Engineering 1959)  
\* Mr Eric J. Millett (Chemistry 1951)  
Mr Tadeusz Moskwa (Mining 1950)  
Professor John V. Oldfield (Electrical Engineering 1954, DIC 1956)  
Dr Richard O. Ormerod (Westminster Medical School 1954)  
Mr Harry G. Raffé (Chemical Engineering 1957)  
Dr Helen Rapson (PhD Botany 1951)  
Mr Cyril A. Rees (Chemical Engineering and Applied Chemistry 1950)  
Dr Raymond Routledge (Charing Cross Medical School 1953)  
Dr David T. Thompson (Chemistry 1955, PhD 1958)  
Dr William B. Thomson, FRCP (St Mary's Hospital Medical School 1951)  
Dr R.W.G. Ware (Westminster Medical School 1952)  
Dr Trevor C. Wells (Metallurgy 1956)  
Mr Robert B. Wilson (Physics 1958, MSc 1959)

## 1960s

Dr Michael L. Ayres, FRCS (Westminster Medical School 1963)  
Dr Hironmoy Banerjee (PhD Electrical Engineering 1962)  
Mr P. M. Bowles (Wye College 1969)  
Mr Alfred Campion (DIC Civil Engineering 1960)  
Mr Philip J. Edwards (Civil Engineering 1969)  
\* Professor Emeritus Anthony G. Evans, FREng, FRS (Metallurgy 1964, PhD 1967, Fellow of Imperial 2007)  
Mr Alexander E. Ferguson-Nicol (DIC Electrical Engineering 1969)

Mr Douglas K. Fisk (Electrical Engineering 1961)  
Dr Christopher M.G. Francis (Mining 1961, DIC Civil Engineering 1967)  
Mr John S.P. Haut (Mechanical Engineering 1969)  
Mr Sultan Kassum (Electrical Engineering 1963, DIC Computing and Automation 1968)  
Mr Ian S. Lunn (Geology 1961, DIC 1962)  
\* Dr Robin J.R. Miller (Physics 1961, MSc 1964)  
\* Dr Patrick A.J. Ramage (Charing Cross Medical School 1962)  
Dr Barry C. Ross (Chemistry 1969, PhD 1972)  
Dr Thomas H. Spreadbury (Westminster Medical School 1961)  
Dr Goza Tay (PhD Physics 1969)

## 1970s

Mr Ian M. Davenport (Civil Engineering 1979)  
\* Mr David W. Hinks (Wye College 1971)  
Mr Tat W. Lai (Mathematics 1977)  
Dr Andre Picard (PhD Civil Engineering 1971)  
Mr Daniel V. Stone (Metallurgy 1974)  
Dr Tony R. Vallance (Charing Cross and Westminster Medical School 1972)

## 1980s

Mr Alfonso M. Barra Alcantara (Electrical Engineering 1986)  
Mr Robert N. Anderson (MSc Geology 1989)  
Mr Carl S. Bainton (Mineral Resources Engineering 1982)  
\* Dr Kevin J. Beurle (PhD Physics 1983)  
Dr Simon A.W.S. Biggart (Charing Cross and Westminster Medical School 1989)  
Mr Richard A. Bowen (MSc Environmental Technology 1984)  
Dr Greig Cowan (Geology 1984)  
Mr William S. Dester (MSc Civil Engineering 1989)  
Dr Steven P. Dunstan (Geology 1986, PhD 1989)  
Dr Patricia H. Lucas (PhD Environmental Technology 1986)  
Mr Jonathan C.M. Phillips (Wye College 1984)  
Mr Neil O.S. Virgo (Wye College 1984)  
Mr Geoffrey K. Whittaker (Mechanical Engineering 1988)  
Mr Stephen B. Wrenn (Wye College 1984)

## 1990s

Mr Martin N. Currie (MSc Civil Engineering 1990)  
Mr Philip Ibeke (Management School 1999)  
Dr Harald Slinde (PhD Materials 1993)

## 2000s

Mr Gautam Balaram (MSc Mechanical Engineering 2008)  
Dr Kreshnam R. Conhye (Primary Care and Population Health Sciences 2000)  
Mr Anthony L. Rose (MBA 2002)  
Miss Alexa Scott (MSc National Heart and Lung Institute 2005)  
\* Mr Matthew J. Smith (MSci Physics 2008)

## Members of Staff

Dr Emmanuelle Caron (Senior Lecturer, Life Sciences)  
Dr Geoffrey P. Kirkwood (Centre for Environmental Policy)  
Emeritus Professor S.N. Wickramasinghe (St Mary's Hospital Medical School)  
Professor Harry Elliott, CBE, FRS (Physics)  
Professor Ken Heron, FREng (Visiting Professor, Mathematics)





Wireless sensors, worn behind the ear, that can be used for accurate physical activity monitoring — one of the innovations developed by Professor Guang-Zhong Yang (Director of the Institute of Biomedical Engineering) and his team.



# Event calendar

## **CGCA London Walk – ‘Clerkenwell’**

Saturday 10 April 2010; Farringdon, London  
[johnsheilabackhurst@tiscali.co.uk](mailto:johnsheilabackhurst@tiscali.co.uk); +44 (0)1892 822925

## **GOLD Drinks and networking event**

Tuesday 27 April 2010; Corney and Barrow, Lime Steet, London  
[www.imperial.ac.uk/alumni/golddrinks](http://www.imperial.ac.uk/alumni/golddrinks); +44 (0)20 7594 6130

## **Behind the Scenes at the Grantham Institute of Climate Change**

Thursday 28 April 2010; South Kensington Campus, London  
Visit the Grantham Institute with Professor Sir Brian Hoskins CBE, FRS, Director of the Grantham Institute for Climate Change  
[www.friendsofimperial.org](http://www.friendsofimperial.org); +44 (0)20 7594 6130

## **The Hunt for the Higgs Boson and the Unknown**

Thursday 8 June 2010; South Kensington Campus, London  
A Friends of Imperial Lecture delivered by Professor Jordan Nash, Head of High Energy Physics, Imperial College London  
[www.friendsofimperial.org](http://www.friendsofimperial.org); +44 (0)20 7594 6130

## **Legacy Lunch**

Thursday 10 June 2010; 170 Queen’s Gate, London  
*By invitation only*  
[www.imperial.ac.uk/alumni/legacylunch](http://www.imperial.ac.uk/alumni/legacylunch); +44 (0)20 7594 6132

## **Student Union Summer Ball**

Saturday 19 June 2010; South Kensington Campus, London  
[www.imperialcollegeunion.org.uk](http://www.imperialcollegeunion.org.uk); +44 (0)20 7594 8060

## **Imperial 1000 members event**

Wednesday 23 June 2010; 170 Queen’s Gate, London  
To thank current members for their donations to the College  
*By invitation only*  
[www.imperial.ac.uk/alumni/imperial1000event](http://www.imperial.ac.uk/alumni/imperial1000event);  
+44 (0)20 7594 6132

## **Royal School of Mines Association**

Thursday 24 June, South Kensington Campus, London  
For members of the RSMA; AGM and Final Year BBQ  
[www.imperial.ac.uk/alumni/rsma](http://www.imperial.ac.uk/alumni/rsma); +44 (0)20 7594 8606

## **Henley Regatta Alumni Reception**

Saturday 3 July 2010; Henley-on-Thames, Oxfordshire  
[www.imperialboatclub.co.uk](http://www.imperialboatclub.co.uk); +44 (0)20 8788 3563

## **Engineering Geology Centenary Reunion**

Saturday 9 July 2010; South Kensington Campus, London  
[rosemary.tipples@imperial.ac.uk](mailto:rosemary.tipples@imperial.ac.uk); +44 (0)20 7594 8606

## **Alumni Reunion 2010**

Saturday 25 September; South Kensington Campus, London  
[www.imperial.ac.uk/alumni/reunion2010](http://www.imperial.ac.uk/alumni/reunion2010);  
+44 (0)20 7594 6130