

Imperial College
London

staying connected

ISSUE 23 WINTER 2003 *TANAKA TAKES SHAPE_ ARE YOU A
FRIEND REUNITED?_ BUILDING A DREAM_ DR TATIANA'S SEX
ADVICE_ PLUS ALL THE NEWS FROM YOUR ASSOCIATION*

IMPERIALmatters

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

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IMPERIALmatters

DESIGNED AND PRODUCED BY IMPERIAL COLLEGE COMMUNICATIONS FOR THE OFFICE OF ALUMNI AND DEVELOPMENT

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PRINT PROLITHO

DISTRIBUTION MERCURY INTERNATIONAL

IMPERIAL MATTERS IS PUBLISHED TWICE A YEAR. THE NEXT ISSUE WILL BE PUBLISHED IN JUNE 2004 AND THE COPY DEADLINE FOR THIS ISSUE IS FRIDAY 23 APRIL 2004

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editorial

DEAR ALUMNUS

Welcome to the Winter 2003 issue of your magazine, *Imperial Matters*. Within these 37 pages, you will find news and features about College life and people. You will also find news about each other, and this is something I know you value.

But at the turn of the year, I feel that I should give you an Imperial insight into a news story that's set to run and run – the financing of universities.

It was about this time last year that the whole issue became headline news. Serious issues of underfunding for teaching and infrastructure became embroiled in a vociferous political debate about student top-up fees.

The real issue as I see it is not about costs, fees or finances. It's all about values, self-determination and responsibility.

At Imperial we are only interested in attracting the best students and staff from around the world and in developing their talent and potential. We will never change those values or lower our standards to suit the current political will. We will always admit students on merit and never on ability to pay. In that regard we are building our new scholarship fund to support those bright and able students who are less able to afford whatever fees may be in place. You can read more about this in *building the connection*, the insert that accompanies this issue.

We have only to review the enterprise and achievements of our students and staff to prove the value of an Imperial College education. Sixty four civil engineering students created a real life construction project in only five days. Read about this on page 17.

During the year, our staff have also continued to win national and international awards for excellence in their fields. Our congratulations to them all (page 37).

Our challenges for Imperial are based on providing the best value for our students and staff. We have to create the conditions that will encourage them to come and work and play here.

This means that refurbishment and new buildings will be a feature of our lives for years to come. The projects this work will support, however, are exciting and allow us to capitalise on our unique ability to research at the interfaces between subjects.

Many of you will know about the new Tanaka Business School and College entrance on Exhibition Road. A hint of its future scale and splendour is now evident to the world. Staff and students will be working in that building next Spring and you can see a photo essay outlining its genesis on page 8.

You are members of the Imperial College Association, a worldwide organisation of 80,000. The Association will keep you in touch with other alumni, staff, students and supporters and update you on College life. I encourage you to stay involved and to become lifelong partners in this network.

You, as graduates of our world class institution, will make your contribution to a *global* society. Imperial is a genuinely



international place. Our students and staff come from over 130 countries and we are proud of our global connections.

By 2004, we shall not only have a Business School to rival the best in the world. We shall also have an entrance to the College worthy of our students, staff, neighbours, and you – our alumni.

My very best wishes for a peaceful and successful 2004.

Richard B Sykes

letters

Imperial Matters welcomes letters for publication, by post or email. We reserve the right to edit them to meet space constraints. Unless you request otherwise, letters may also appear on the Imperial College alumni website as a part of the online edition of *Imperial Matters*.

Imperial Matters under the microscope

Dear Editor

I have had some difficulty and reservation about writing to you about the summer 2003 edition of *Imperial Matters*. However you did say in the covering note that you were interested in feedback, so here goes...

As it stands, the edition is well printed, well illustrated and full of news, but it has the overall gloss and glitz of an advertising brochure, or now in many cases, company 'Annual General Review' rather than 'Statements'. The overall feel is one of 'aren't we marvellous!', 'isn't it great!' and is becoming quite remote from oldsters like myself.

An important problem that you have which is not of your making arises from the fact that Imperial has rapidly enlarged with a new large medical Faculty, plus the merging of Wye College. In addition, the boundaries of some of the old constituent departments and colleges are disappearing.

As a result, it is difficult for a past student of my generation to relate at all to all the marvellous happenings referred to. I suspect that the latter comments might be shared with students of the 60s, 70s and 80s.

I am not quite sure what you as publishers can do about all of this. As a magazine, it will, I am sure, relate immediately to present staff and students, but the risk is that for many past students, as a publication, it will join other unread journals like the AA magazine, as a glossy journal of high standards, but of passing interest!

DR DOUGLAS LOVEDAY PHD BSC DIC CCHEM MRSC
(CHEMISTRY 1947)

Dear Editor

As this is the best alumni magazine among the five that I receive regularly, I thought I should respond to your invitation to 'write to us' and offer you special congratulations.

I found your obituaries of two of my old students – John Knill and Peter Hills – dignified, well informed and moving.

Many thanks and all good wishes for many more successes.

EMERITUS PROFESSOR PETER WOLF
(DEPARTMENT OF CIVIL ENGINEERING, 1949–1966)



These are two of many comments we have received about the magazine. Your feedback, negative or positive, truly does help us to steer the direction of Imperial Matters and helps us to provide what we think you would like to read about. It is valued.

We particularly thank Dr Loveday for his valid and balanced comments. We would welcome news from other 'oldsters' which we could feature in our alumni section (pages 24–37) as a means of increasing interest for this group. We are keen to use Imperial Matters not only to bring you news of the College today, but also to tell you about the interesting and varied lives that alumni of the College have gone on to lead.

We look forward to hearing from you.

Placements online



I am writing on behalf of the Internship Centre, run by the enthusiastic engineering students of the City and Guilds College Union, to acknowledge all of the kind offers of summer work placements made by alumni members following the item on the Internship Centre in the previous issue of *Imperial Matters* entitled 'Can you help students

secure vacation placements in your company?' We have now had in excess of 20 offers and have consequently been able to help current students secure valuable work placements with these offers.

The Internship Centre is based on the strength of these job offers and we are always looking for more jobs to put into our database. We would be delighted to hear from you if you can help us in any way either by making a job offer yourself or enticing some interest in your company to do the same.

Over 1,500 students from all over the College accessed the Internship Centre during the last academic year, helping to place dozens of students in different organisations. There are no fees involved in joining the scheme and further information is available on our website www.cgcu.net/internships. You can also contact this year's Internship Centre Co-ordinator, Ben Cotter on internships@cgcu.net or on +44 (0)207 594 8073.

Thanks again!

ATUL RANA
RESEARCH STUDENT, DEPARTMENT OF MECHANICAL ENGINEERING

clothing_regalia_gifts



www.imperialshop.co.uk

Research cash strapped – to anaemic levels?

Attempts to arrange a working relationship between research and teaching without adequate funding can be likened to substrate starvation in the futile recycling of electrons that produce dangerous reactive oxygen species. For instance CYP1A1, which can be found in the liver and lungs, hydroxylates the carcinogen benzo(a)pyrene and converts ethanol to ethanal and testosterone to oestrones. In its futile-recycling mode however, CYP1A1 makes dangerous reactive oxygen species, such as the superoxide anion (O_2^-), which occurs through only partial reduction of O_2 instead full reduction to harmless H_2O .

Continuing the analogy to research funding, CYP containing iron-protohaematin IX is like the iron-haemoglobin in blood cells that cannot be made to function without the oxygen-carrying respiration provided by that iron.

Anaemic levels of research funding cause 'research-respiration' syndromes that lead to associated 'teaching-aspiration' failures. Furthermore, this spin-off works mainly in the direction of 'research success towards teaching excellence'.

Moreover, although biotechnology makes money in bioprocesses such as antibiotic production, it makes headlines with recombinant DNA and GM foods: and with the ROS-related diseases such as heart disease and cancer.

Provision of a generous level of research funding is likely to be reflected in courses which are attractive to students, who may indeed be seeking research-led teaching in a well-funded centre of excellence.

ALAN WISEMAN FRSC
(CHEMISTRY 1956)

Future of the Reactor Centre

Are you interested in current activities at the Reactor Centre?

Next year is an important year for the facility, as the College is holding discussions with stakeholders to look at future funding measures and strategic uses of the Reactor.

We are looking for advocates for the Reactor Centre to help us in our campaign to increase awareness of this unique facility.

Can you believe that the UK has only one civil nuclear research reactor, supporting some 16 per cent of electricity generation in the UK through a unique calibration facility, but there is no long term plan to secure its future? We are proposing some tough choices to the community, and it is important the community voice is heard. The Reactor Centre needs you!

The Reactor team is also preparing for the 40th anniversary of safe operations in April 2005, and are looking for people who would like to take part in the celebrations.

The Reactor Centre website has recently been revamped, and feedback from alumni is especially welcome.

We will keep you informed about both stakeholders' meetings and the forthcoming anniversary at www.imperial-consultants.co.uk/reactor.html or email Simon Franklin at s.franklin@imperial.ac.uk to find out more.

SIMON FRANKLIN

DIRECTOR OF THE REACTOR CENTRE AT THE SILWOOD PARK CAMPUS

Please send your letters to:

Imperial Matters, Office of Alumni and Development, Imperial College London, South Kensington campus, Room 303 Sherfield Building, London SW7 2AZ, or by email to matters@imperial.ac.uk

Alumni on the podium again



Imperial sailors: taking to the seas again, in the 2003 AB Cup.

Imperial's business school alumni were amongst the top crews in Europe's MBA sailing regatta for the second year running.

Six alumni from the 2001 Business School cohort – Calum Sillars (skipper), Rupert MacInnes (boss), Lawrence Price (navigator), Dan Sherwood, Simon Brown and Sarah Thelwall – took second place in JOD 35s to uphold Imperial's growing yacht racing record. They also gained second place at last year's regatta.

This year's annual INSEAD-organised Alumni Business Cup took place in May when organisers provided the unusual venue of the French Navy officers' academy near Brest to attract Europe's top MBA alumni sailors.

Competitive crews from across the continent converged on the coastline around Lanveoc Poulmic on the western tip of Brittany for the event.

If you would like to find out more about the regatta, visit www.alumnibusinesscup.org.

The art of pulling together

The UK's first rowing research programme has revealed the secrets of the best and safest rowing technique.

A total of £81,000 funding from the Henley Stewards Charitable Trust, together with assistance from the British International Rowing Office, will enable Imperial researchers to develop a biofeedback system that gives instant visual feedback on rowing technique.

The three-year project, involving rowers from Great Britain's men's and women's Olympic teams and local clubs, will help harmonise movements with fellow rowers, while avoiding the causes of lower back pain.

One of the key lessons learned is the importance of developing the balance of muscles in the lower back area and the strength of the muscles of the lower abdominal area.

"We've successfully defined the key factors that make up good rowing technique, and now our goal is to translate that scientific knowledge into something that helps improve performance and reduces injuries in the sport," explained Dr Alison McGregor, leader of the research project at Imperial.

"This biofeedback system is a key communications tool between athlete, coach and physiotherapist. Since running the programme with the Great Britain women's rowing team in May 2002, no major back problems have emerged in the athletes taking part and in recent flat-out ergometer tests, six athletes in the group set personal bests."

The project draws upon the combined expertise of Imperial scientists, engineers, physiotherapists and coaches from the Great Britain squad, and may give a competitive edge at the Athens Olympics in 2004.

Using an experimental system at the biodynamics laboratory, Charing Cross campus, rowers are wired up with sensors measuring the relative positions of their legs, pelvis and various points on their lower back. Their technique is highlighted through the 'stick man' feedback system, giving a visual display of how the back moves while rowing.

Funding will also be used for the UK's first 'rowing research fellow', Dr Jeremy Loh, a bioengineer, to develop a specially-adapted rowing machine – an ergometer – using feedback gained from athletes in recent trials.

"The Stewards are very proud to be associated with this important and innovative research into the best and safest technique of rowing," said Mike Sweeney, Chairman of the Stewards of Henley Royal Regatta. "This work can be crucial for the future health and well being of rowers, both in this country and throughout the world."

>> NEWS IN BRIEF >>

Scientists develop a novel strategy to help prevent transplant rejection _ A study led by Imperial has shown for the first time it is possible to help prevent organ rejection using a novel strategy that redirects the body's immune response instead of suppressing it. Researchers have demonstrated that it is possible in mice to alter whether T white blood cells specialise to attack foreign tissue and thus cause rejection, or instead become part of the body's peacekeeping force, which patrols the body,

defending against attack. "Our strategy opens up the possibility of offering gentler postoperative therapy by redirecting the recipient's immune system in advance of the transplant," said Professor Maggie Dallman of the Department of Biological Sciences, and senior author of the study. www.imperial.ac.uk/P4780.htm

A prescription to slash NHS delays _ Scotland's hospital waiting lists have been a sad story of hope deferred, according to Professor Nick

Bosanquet of the Division of Primary Care and Population Health Sciences. Launching his 'Healthy Future for Scotland' policy paper (26/11/03), Professor Bosanquet said: "Donald Dewar's pledge of 65,000 seems a long way off as numbers rise towards 110,000 and beyond. But this should be seen as an avoidable tragedy, not a subject for resigned acceptance and ridicule." He added: "The opportunity is there for a series of actions, which would get waiting times down to three months and keep them down."

Heart FM DJ presents cheque to Imperial for research into a rare genetic disease _ Jono Coleman, DJ on London's Heart FM radio station presented a cheque for almost £50,000 to Imperial scientists in November to fund three years of research into a rare genetic disease, Lowe Syndrome. Jono, who is the Patron of the Lowe Syndrome Trust, handed over the cheque to Dr Ramon Vilar-Compte of the Department of Chemistry and Dr Rudiger Woscholski of the Department of

Engineering knowhow maintains medieval way of life

Romanian farmers can continue to preserve a way of life unchanged since medieval times, thanks to a horse-drawn hayrake and tedder designed by Imperial undergraduates.

The Queen's Lawn proved an ideal testing area for the unusual looking device which was sent to Romania, followed by two internship students who observed it being tested.

Designed by mechanical engineering students Eleanor Davies, Tayyab Gandhi, Nicholas Everett, Johannes Werhahn, Olivier Djopwouo, Amit Visrolia, Benjamin Diethelm and Stephen Gallimore, the work formed part of a project for the Working Horse Association of Romania. This organisation supports peasant farmers in the rural north west of the country and hires out farming implements to which farmers would not otherwise have access.

The machinery will be reproduced by Romanian blacksmiths and play a major role in preserving the local ecostructure. The tedder turns the hay, improving its nutritional content by allowing it to dry more quickly. The hayrake gathers it, ready for stacking in the traditional way.

Haymaking in the area is currently done by hand. The new equipment provides an environmentally friendly way of increasing the quality and quantity of the farmers' hay yield, suitable for the local landscape and skills base.

"Everyone is thrilled to be involved with this, because of the opportunity it offers to make a real difference to farmers in Romania," explained Johannes Werhahn. "We are happy to have brought it to a successful conclusion so that the machines are ready to be used – it's exciting to think that our designs will be reproduced and used across the region."

The project is sponsored by Developing Technologies, a UK charity working in association with Imperial to use student projects at all levels to provide an engineering design service for the developing world in a way that is suitable for local manufacture and maintenance.

Manager Fiona Pullen added: "Our aims are to relieve poverty and to promote education and we are very grateful to Imperial and particularly the Department of Mechanical Engineering for their commitment to this project, which will not only benefit the communities in Romania, but will also give students hands-on experience and the chance to follow the progress of their designs as they are used."



"As we believe it is invaluable for tomorrow's designers to see the impact of their solutions on other peoples and countries, we will be working hard during the next few years to increase the numbers of students we are able to send on internships.

"We are also keen to expand our work to staff and students of other departments, especially to those academic staff with experience of appropriate technology or who would like to act as supervisors for our projects."

Contact k.pullen@imperial.ac.uk or fiona@developingtechnologies.org for further details.

Centenary book project

Hannah Gay, based in the Centre for History of Science, Technology and Medicine, is working on a book-length collection of historical essays to mark the centenary of the College in 2007. She wants to hear from anyone who has any useful information on the College history. Of particular interest are written documents, especially any departmental histories, memoirs, or diaries with entries on Imperial's past. She is also keen to see historical photographs.

If you have reminiscences, particularly from the 1980s onwards, please email Hannah in the first instance on h.gay@imperial.ac.uk.

>> NEWS IN BRIEF >>

Biological Sciences, who are developing a cheaper and more reliable test for the disease. Commenting, Dr Woscholski said: "The focus of our work, this diagnostic tool, will not only greatly improve matters for Lowe patients in terms of diagnosis, but it will also significantly help other scientists." www.imperial.ac.uk/P4735.htm

A glass a day keeps the doctor away _ Imperial scientists have found that red wine can protect against the harmful effects of smoking. A study

led by Dr Louise Donnelly of the NHLI Division has shown resveratrol, a component of red wine, has anti-inflammatory properties that can help treat chronic obstructive pulmonary disease (COPD), a type of lung disease commonly caused by smoking. "It is incredibly important to get a drug for COPD," Dr Donnelly told *New Scientist* (28/10/03). "We're not curing the disease but treating it. It is the fourth biggest killer in the world."

Imperial imaging technology may soon provide a detailed map of the UK's sea-bed _

Advanced sonar technology developed at Imperial may soon be used to create a national survey of the sea floor surrounding the UK. Developed by Dr Sanjeev Gupta of the Department of Earth Science and Engineering the revolutionary underwater scanning technique can create sea-bed maps and images as accurate and detailed as those made of dry land. Commenting on the technique, which has already been

trials off the coast of Sussex, Dr Gupta said: "What we saw was astonishing. The topography was incredibly detailed, rich and complex." www.esi.ic.ac.uk

Imperial scientist in world's top 50 list _ A UK asthma researcher has been named as a 'citation superstar', becoming one of the world's most cited researchers over the last 20 years.

Professor Peter Barnes of the NHLI Division has been listed as number forty in the world's top 50 most cited scientists according to the journal

Green Design Challenge winners



The winners of the first Green Design Challenge beat off seven other teams in the competition, held by Imperial College and Shell Renewables, which aims to raise the profile of engineering among young women.

Pupils from Bhasvik, Hove; Newstead Wood School for Girls, Orpington; St Helens School, London; and Our Lady's Convent High School, London, took first place. Other teams won prizes for Cost Effectiveness and Ingenuity and Design.

Aimed at female sixth form students with an interest in maths and science, winners took part in the event on the South Kensington campus for two days in the summer, designing and building a wind turbine capable of charging the battery to power a small hospital fridge.

The overall winning team will attend a week long programme in Wales designed and run by the Centre for Alternative Technology, gaining experience in the day-to-day running of renewables such as wind power and hydro-electric power schemes.

Research Fellow, Ruth Graham, Department of Mechanical Engineering, who supervised the event, said: "It has been a great success. We have really challenged some traditional stereotypes of engineering and allowed the young women to see the impact a professional engineer can have in areas such as sustainable development or projects in the developing world."

Karen de Segundo, Chief Executive Officer of Shell Renewables added: "Meeting the engineering challenges of developing renewables requires the best female minds, as well as the best male ones. I hope that this competition will highlight to Britain's most promising girls that through engineering they can play a crucial part in resolving fundamental issues facing our society."

Academy of Medical Sciences Fellows

Eight Imperial academics have been elected to the Academy of Medical Sciences.

New Fellows include Professor Charles Bangham, Division of Investigative Science; Professor Anthony Barrett, Department of Chemistry; Professor Sir Ara Darzi, Division of Surgery, Anaesthetics and Intensive Care; and Paul Farrell, Director, Ludwig Institute for Cancer Research.

Amanda Fisher, joint Head and Honorary Professor of Cell Biology, Clinical Sciences Centre; Professor Ilpo Huhtaniemi and Professor Francesco Muntoni, Division of Paediatrics, Obstetrics and Gynaecology; and Professor Jeremy Saklatvala, Kennedy Institute of Rheumatology, will also be admitted to the Fellowship.

Professor Sir Leszek Borysiewicz, Principal of the Faculty of Medicine said: "This is excellent news for Imperial and for the new Fellows themselves. Imperial has long been at the forefront of translational clinical research, and I am very pleased that those doing world class research are receiving the recognition they richly deserve."

Imperial now has 71 Fellows in the Academy of Medical Sciences out of a total of 700.

Imperial's branding project achieves international recognition

Imperial's branding project has won a prestigious Silver Medal in the Circle of Excellence Awards Program, held by the Council for Advance and Support in Education (CASE). Imperial is the only UK institution to achieve recognition in any category of the 2003 Awards Program.

The branding project was undertaken to promote a wider understanding of the College's aims and achievements, by producing a brand that is internally cohesive and easy to communicate.

The project was directed by Lynda Davies, Head of Communications at Imperial, in partnership with FutureBrand and Stonehenge Public Relations.

www.imperial.ac.uk/P4410.htm

>> NEWS IN BRIEF >>

Science Watch. Since 1983, he has written 1,311 papers, which have been cited 38,823 times by other scientists and researchers. Only five other scientists from the UK feature in the list, of which Professor Barnes is the only clinical scientist.
www.imperial.ac.uk/P4635.htm

Jupiter will vaporise spacecraft_ NASA spacecraft Galileo went out with a bang this autumn when it was put on a collision course with Jupiter to end its 14-year mission. As well as extensive scientific data, Galileo has

provided the most visually stunning images of Jupiter and its moons. The probe, which was launched in 1989 by the space shuttle Atlantis, also imaged the Earth, Venus, the Moon and several asteroids during its lifetime. "It is always sad when a mission comes to the end of its lifetime," said Dr Michele Dougherty of the Department of Physics, who is a team member on the Magnetometer instrument that detects magnetic fields in the spacecraft's immediate environment. "However, Galileo has exceeded expectations and provided

a wealth of scientific data resulting in the discovery of many new important facts about the Jovian system. In addition the images produced of Europa and Io are stunning."
www.imperial.ac.uk/P4412.htm

Heart monitor may save babies_ A high-tech heart monitor that can accurately decipher an unborn baby's heartbeat is being developed by Imperial scientists. Working with QinetiQ, Europe's largest science and technology organisation, the new technique can

detect a full foetal ECG, which is important to monitor during high-risk pregnancies. "Cardiac arrhythmia is believed to be a factor in cot death, and by getting more information on the hearts of unborn babies, it may be possible to detect those at high risk and prevent the devastating effects of some arrhythmias on the foetus and newborn baby," said Dr Helena Gardiner of the Division of Paediatrics, Obstetrics and Gynaecology and author of the study.
www.imperial.ac.uk/P4361.htm

Union plans for the year

On the Union's agenda for the 2003/04 academic year is to increase the number of students both putting themselves forward for Union elections and voting in them. To raise awareness and involvement levels, the Union plans to hold future Council meetings at Imperial campuses other than South Kensington. Having already held a meeting at Charing Cross, the next meeting away from South Kensington will take place at the Wye campus and will be the first time that the Union has visited Wye for a Council meeting since Imperial's merger with Wye College in 2000. They also hope that the introduction of electronic voting and promotion of elections and candidates by the Union itself will help to increase the numbers of students who vote.

In addition to the Union Council meeting at the Wye campus, the Union is looking to strengthen links with students at Wye in other ways. Plans are underway to bus students in from Wye for events at South Kensington. Reciprocal visits are also under consideration. Over 30 per cent of students at Wye are from overseas, and they feel that international students at Wye would, in particular, benefit from increased contact with the Union's international societies.

Centenary celebrations

The centenary of the foundation of Imperial College London and the formation of the Imperial College Union from the Royal College of Science, Royal School of Mines and City and Guilds College Unions happens in 2007. The Imperial College Union is unusual in that it was formed on the basis of student activity rather than for political reasons, which is borne out by the number and diversity of student clubs and societies which operate today.

The Union is currently working towards this major landmark and ideas for celebratory events currently include sporting events, an international showcase, an arts festival and a ball. At this stage, the Union would welcome input from alumni about the types of events they would enjoy attending. Please send your ideas or thoughts to president@imperial.ac.uk.

Freshers' Week

With the Union bars full to capacity every night, Freshers' week culminated in the Freshers' Extravaganza. This featured a guest appearance from Radio One DJ Trevor Nelson, who credited the Imperial College Union as having the best R'n'B night in the country on his show the following day! The annual Freshers' Fair was a huge success with the new students, resulting in the formation of several new clubs including the 'meat appreciation' society.

The City and Guilds College Union, which represents student activity specifically within the Faculty of Engineering, have also had a busy start to the 2003 academic year. After a highly successful Freshers' Ball, the next major C&GCU event involved C&GCU mascot, Bo', who once again took its place on the C&GCU float in the Lord Mayor's Show after successfully completing the London-Brighton run for the 69th time since 1934.

Similarly, following a very successful ball in the summer, the Medical School Union also staged a Freshers' Ball for their new and existing students. The bar at the Charing Cross campus reopened at the start of the academic year following a change in management and refurbishment over the summer (thanks to a grant from the Charing Cross and Westminster Medical School Alumnus Society) and is proving a big hit with medics studying on the Charing Cross campus.

New sabbaticals

Following last year's sabbatical elections, the Union President for 2003/04 is Mustafa Arif (Electrical Engineering and Computing 2003) who is supported by Deputy Presidents Mike Moate (Computing 2003) – Finance and Services; Katherine McGinn (current medical student) – Education and Welfare; and Richard Walker (Chemical Engineering 2003) – Clubs and Societies. Alex Coby (Physics 2003) is editor of *Felix* and the Medical President is Matt Cauldwell, who is also taking a year out from his medicine studies.

Launch of Union shop online

The online Union shop was launched in August, which opens up Imperial College branded merchandise to a worldwide market. We're hoping for alumni support for this venture and some promotional activity has already taken place in the monthly alumni e-bulletin and in *Imperial Matters*.

See for yourself at www.imperialshop.co.uk. To build on the launch of the shop, the Union welcomes feedback from alumni, particularly regarding the products currently available. Please email imperialshop@imperial.ac.uk with your ideas.

New Union advisor

There is a new Union advisor in post, who has brought a new focus of academic support to the role. Previously the emphasis of the role was on welfare counselling but with various functions within the College's administrative departments now fulfilling student welfare needs (student finance, the international office), the focus is now on educational support. The Union now runs courses for students on life skills such as time management, which add to the perception of many graduate employers that Imperial students leave the College with highly practical and transferable skills. Over 100 companies attended the Careers Fair in November, which ran over two days.

Imperial College Volunteer Centre

The Imperial College Volunteer Centre, set up early this year in partnership with the College, has resulted in nearly 700 students and staff members signing up to become involved in volunteer work in the local community. The Centre attempts to match ideas and opportunities available with the right volunteers. A lot of Union clubs and societies have become involved in projects at the Centre, including the Rugby Club who are currently raising funds, with RFU backing, to provide training programmes in local schools.

feature



Putting on the glitz



THE TANAKA BUSINESS SCHOOL AND THE NEW ENTRANCE FOR Imperial College London are nearing completion. The College took over the first set of offices, based in the Royal School of Mines, on 14 November. The Business School will open for business in its new location on Monday 29 March 2004.

The official opening of this prestigious building will take place on Thursday 24 June. We are delighted that Her Majesty The Queen has graciously consented to perform the ceremony. It will be a truly memorable occasion, which we hope will go some way towards thanking Dr Gary Tanaka for his magnificent personal donation, making the whole development possible.

At the topping out ceremony in April, Rector, Sir Richard Sykes, said: "This building will give Imperial College London some grandeur. It will

enhance the stature of the College and put the spotlight on our entrepreneurial spirit. This drum of amphitheatres and these columns will gleam and the 'crystal palace' will return to South Kensington.

"Gary said at the beginning of this project that he wanted to create a 'bit of Broadway and glitz to attract good academic people'. I think, from what we can see already, the new Tanaka Business School will give us that."

Lord Foster commented: "Every project we do is special, but this very much so as it's more than just a building. It's an entrance for Imperial College which is a building in its own right."

To see the photo diary charting the course of the project, please visit www.imperial.ac.uk/tanaka.



PHOTOS: NEVILLE MILES

Imperial in the City



NEVILLE WILES

BY LIZ GREGSON

JAN CHLEBIK

OUR ALUMNI RANGE FAR AND WIDE. AT THE LAST COUNT THERE were over 80,000 of you spread over large areas of the globe. Of these individuals there is a significant number who have chosen to work or live within the bounds of the City of London.

Thanks to a generous donation from the Citigroup Foundation, the Office of Alumni and Development has been able to employ a recent Imperial graduate, Sam Sharpe, as the Citigroup Innovation Scholar to work on a variety of specific alumni-related projects. In addition to supporting existing chapters of the Imperial College Association and other projects within the Office, the Scholar will be developing networking networks of City-based alumni.

The first stage will be to research the particular needs of City alumni and how Imperial might help. By surveying alumni and analysing

successful past events, we hope to build up a profile and potentially plan for a City Alumni Chapter.

City alumni come from a wide variety of backgrounds. They are not solely graduates of the Business School. Many engineers and scientists apply the skills learned within the framework of their degrees to forge very successful careers as bankers, brokers or business people.

In the New Year, we will begin our research, which, dependent on levels of interest, may lead to networking events, special lectures by leading alumni and academics, and other new services.

If you would like to be involved in the planning stages, or keep in touch about events, please contact Sam at sam.sharpe@imperial.ac.uk.

news from the faculties

Business School



The Executive MBA, a two year part-time programme, was ranked second in the UK and fourth in Europe in the 2003 *Financial Times* survey. The full-time MBA achieved a global ranking of 37 in the Economist Intelligence Unit's *Which MBA?* Guide, putting it ahead of Oxford, Cambridge, Warwick, and Cass.

In October Tom Hoehn, a Partner at PricewaterhouseCoopers, became Visiting Professor and Director of the 2004 EMBA Programme. A specialist in anti-trust economics, Tom describes the Imperial EMBA as 'a perfect match' with his work at PwC.

The FT MBA also has a new Director, Stefan Szymanski, Professor of Business Economics and Strategy. Stefan is an expert on the economics of sport, and two aspects of his research are widely cited: the different ways US and European sports are organised, and the financial implications of Olympic bids.

In November, *The Economist*, *Financial Times*, and *Wall St Journal* carried adverts for 10 new faculty positions of international excellence at the Business School, prompting the *Times* to speculate that a 'reverse brain drain' might begin to take place. The School is also now advertising for a Director of Operations to lead its administration.

In December, Professor David Miles completed the first stage of his report for UK Chancellor Gordon Brown, analysing why, unlike many other countries, the UK mortgage market provides variable interest rate loans.

The new offices in the Royal School of Mines are now complete, and the new Tanaka Building will be handed over shortly, allowing the Business School to begin teaching in its wonderful new facility after Easter in 2004.

Faculty of Engineering



The Department of Computing has launched an **MSc in Computing for Industry**. This modular course for IT professionals can be taken whilst you continue in full-time employment.

The modular structure incorporates over 30 different options, and a customised programme of study will be designed for every participant, taking into account their present knowledge and experience.

The course offers the advantages of a prestigious qualification with strong formal training, in a department renowned for its excellence in both teaching and research.

Most of the modules offered are also available for continuing professional development to professionals who do not wish to register for the degree. Up to two modules can be counted in the following year towards the degree if the MSc is undertaken later.

If you work for an organisation which would like to explore opportunities for integrating this MSc or some of its components as part of your internal training provision, please contact Dr Emil Lupu at e.c.lupu@imperial.ac.uk.

Further details and the list of available modules are at www.doc.ic.ac.uk/indmsc. For admissions queries please email pgadmissions@doc.ic.ac.uk.

Professor Chris Toumazou presented the 2003 Clifford Paterson Lecture, 'the bionic man', on 9 October 2003 at the Royal Society. The lecture, which is given annually in the area of electrical science and technology, considered the new wave of technology inspired by lifestyle, healthcare and the environment. Professor Toumazou's lecture revealed how by using the natural analogue physics of silicon technology to replace biological behaviour, totally implantable cochlear, retinas, hearts and many other biological functions could be developed using only nanowatts of power.

In November, Imperial and Lloyd's Register, the independent safety assurance and risk management organisation, announced a joint Chair in Transport Risk Management. Situated in the Department of Civil and Environmental Engineering, Professor Andrew Evans will be the first holder of the Chair.

An Armageddon asteroid could be deflected from a collision course with Earth using the power of a Robin Reliant, according to Dr Matt Genge of the Department of Earth Science and Engineering. Speaking at the British Association festival of science in September, Dr Genge calculated if the three-wheeled vehicle, which is best known as the car driven by Del Boy in the BBC television series *Only Fools and Horses*, was kept running for 75 days it could exert enough force to divert the most dangerous asteroid presently known to humanity.

Humanities Programme



Graduates of our MSc degrees in Science Communication and Science Media Production described what they gained from the courses in the *Guardian* (20.10.03).

Alumni are now using their skills in positions at the Science Museum, the BBC and the United Nations. Nicolas Jarraud commented: "During my PhD, I realised that not only does the public have a vague idea of how science works, but also that most scientists have no idea how to communicate their achievements."

"Doing the MSc helped me understand how to bridge this gap. As a scientist I gained a better appreciation of what the public wants to know, rather than what scientists think they want to know."

Since its launch in 1991 the Science Communication course has grown from 12 students to 48 in the 2003 intake, with applications exceeding places by four to one.

The Science Media Production MSc, the only course in the UK to offer broadcast media training specifically for scientists, was launched in 2000.

Faculty of Life Sciences



An innovative MSc in Sustainable Development has recently received the support of the Faculty of Life Sciences at Imperial College, via the Graduate Studies Committee for Life Sciences and Medicine.

The MSc currently involves three departments at Imperial: Environmental Science and Technology; Civil and Environmental Engineering; and Agricultural Sciences; as well as LEAD International. Launching in January 2005, it is designed to enable professionals across the world to acquire scientific, technological, economic and social knowledge, equipping them to address challenges presented by globalisation and sustainability.

The course is structured into three distinct sections:

Part One comprises four cross-disciplinary modules, plus one specialist option, which will be studied by distance learning.

Part Two can be taken either by distance learning or on campus and will focus on the chosen specialist option in Part One. Subjects include biodiversity management and conservation, energy policy for development, environmental economics, health and risk assessment and water management.

Part Three can also be taken either at distance or at Imperial College and comprises a compulsory research methods module and a research report.

Contact Paul Smith, Deputy Director of the Distance Learning Programme at Wye paul.smith2@imperial.ac.uk for further details.

As this year's flu season kicks off, a team of Imperial scientists report an effective treatment for the virus could be in the pipeline. A team led by Dr Tracy Hussell of Imperial's Centre for Molecular Microbiology and Infection has developed a novel strategy for effectively treating symptoms of the virus in mice. They found that by selectively reducing the number of T cells it was possible to eliminate clinical symptoms whilst effectively tackling and clearing the infection.

Agricola Scholarships worth up to £3,000 were presented to the 15 most outstanding students at Wye, who embarked on Bachelor or Master of Science degree courses this academic year. The annual awards, jointly funded by Imperial and the Agricola Club, the association for past students at Wye, were presented by Professor Jeff Waage, Provost of Wye campus in October.

Faculty of Medicine



In September, Professors Maini and Feldmann from the Kennedy Institute of Rheumatology were awarded the prestigious 2003 Albert Lasker Award for Clinical Medical Research for their work into new treatments for rheumatoid arthritis. The Lasker award is considered to be America's Nobel Prize, and 66 recipients have gone on to win Nobel Prizes

The Schistosomiasis Control Initiative (SCI) received approval to expand to a further five African nations. The SCI has already set up a programme to tackle schistosomiasis, a disease caused by a tropical

parasite, in Uganda, but it now plans to extend its work to Burkina Faso, Mali, Niger, Zambia and Tanzania.

Imperial researchers have been leading the way in obesity research. Professor Steve Bloom continues work into the appetite reducing hormone PYY₃₋₃₆, while Professor Philippe Froguel and colleagues at the Institut Pasteur de Lille, France, have identified a gene which may explain why some people overeat.

Professor Julia Polak became a Dame in October when she went to Buckingham Palace to receive her DBE from HM The Queen for services to medicine, while Professor Alan Boobis received an OBE for his work as Deputy Chairman to the Advisory Committee on Pesticides.

Two scientists from the NHLI Division have made important discoveries in the treatment of asthma and chronic obstructive pulmonary disease. Professor Peter Barnes has found that resveratrol, a compound abundant in red wine, may help reduce inflammation and fluid build-up in the lungs. Professor Barry Kay has discovered that white blood cells may play an important role in the scarring and inflammation caused by asthma, potentially leading to new treatments.

Professor Mervyn Maze has been awarded the American Society of Anesthesiologists Research Award 2003, for his research into how anaesthetics work.

Three medical students have recently won the Idea to Product (I2P) competition for their development of a business plan to market 'Inhalit', a life saving asthma monitoring device. Two final year students, Donna Winderbank-Scott and Vanh Dang; and Rachel Hames, a fifth year medical student, won the inaugural I2P 2003 International competition at the University of Texas at Austin, USA. Their prize was a \$10,000 cash award.

Faculty of Physical Sciences



Imperial has launched an international Institute of Mathematical Sciences to foster the application of mathematics.

The Institute will use mathematics to study outbreaks of epidemics and their control, bio-statistics, fluids in engineering and the environment. Staff will also tackle big questions in cosmology and string theory, and provide new analytical tools for the financial sector.

"This is an exciting opportunity for mathematicians in London," said Professor Simon Donaldson of the Department of Mathematics, and first President of the Institute. "The interdisciplinary nature of the new Institute will stimulate new interactions with other fields and this will be of enormous benefit to both sides. On the international stage, these special features of the Institute will give it a distinctive character, complementing the other top research institutes around the world."

Imperial will benefit from the restructuring of King's College London's Chemistry department. Three members of staff from the department, Dr Mimi Hii, Professor Susan Gibson and Professor Mike Robb FRS, recently took up posts at Imperial.

As a new Imperial recruit one of Professor Gibson's first tasks was to deliver her Rosalind Franklin award winning lecture at the Royal Society. This explained the molecular world and how molecules are made and modified.

BY TANYA REED

BEING FLASH IS NOT ON STEVE PANKHURST'S AGENDA. TRUE, his company, the website *FriendsReunited* has made him a millionaire, at least on paper, several times over. Also true, he recently bought a new house. But he is at pains to point out he switched one semi in Barnet for another slightly bigger semi. And how do you drive two children around in a sports car? (You don't, you drive a Honda and a Golf.)

Sitting in Covent Garden, drinking coffee, talking curries, it wouldn't automatically occur that the 37-year-old was gearing up to judge the *Guardian's* Student Media Award of the Year at The Ivy. It's really not his thing. He only accepted because of who was on the judging panel – namely Jonathan Ross.

"Actually, Jonathan was very quiet and didn't say much. I ended up talking to football pundit Gabby Logan instead."

Steve is good at talking, especially to Danny Baker, and Richard and Judy (twice) when his site was 'daytime fodder'.

FriendsReunited catapults your past into your present by putting you in touch via the Internet with those friends/teachers/work colleagues that you loved/argued or bonded with decades ago.

You click on to www.friendsreunited.co.uk, register for free, locate your school and look up names you had all but forgotten. If you want to email them, you pay a flat rate £7.50 membership fee to have your messages passed on.

The site was set up in his FRONT bedroom of his old house in the summer of 2000. "Why does the media insist in saying it was a back bedroom?!" Together with wife Julie, the couple poured endless hours into what was initially a hobby until a year later when both realised its worldwide potential.

"First year growth was uncontrollable in 2001. The end of that year was a watershed – we were in the top 10 companies in terms of hits. By then we were exhausted.

"We weren't into running companies and suddenly it was a monster. We realised we were missing a lot of opportunities – things we enjoyed – and we weren't very good at making decisions – we were ideas people.

After a call from the *Sunday Times* which said they'd heard Steve was floating the company – "I said no!" – Steve and Julie agreed they needed to take a backseat.

"Estimated prices ranged from £20-£25 million. It went mad. By the end of one week, the price was £35 million. It was a huge media circus with journalists camped outside. I kept asking myself, we're an internet company – where's the interest?"

In March this year, they brought in a management team consisting of *Financial Times* website managing director, Michael Murphy and *FT* marketing director, Tim Ward, as well as Rob Mogford, an adviser from BDO.

"They run the day to day business. It's now a lot more professional but we retain control. We're still involved and do the PR, but can focus more on new ideas and new content. Life is a lot, lot better – it has released time – we can now take half a day off to take the kids out."

It also allowed Steve the chance as a Barnet and Tottenham supporter to win an auction bid to become a squad player for a day in a match against Arsenal at Barnet in July 2003.

"It was such a great day and I got the biggest cheer when I went up which was very strange. There was lots of media interest, although it ended in a really boring one all draw and I never touched the ball."

INSPIRATION

Whether his inspiration for *FriendsReunited* came from Imperial College is debatable. "At 18, I wanted a maths degree and as a Londoner, went to a London college, as all my friends were going there.

"My memories are of pubs, snooker and pool – that was all we did beside going to lectures. It wasn't a great social life. I was a Southside regular who went to the gym a lot. There were a lot of old 70s bands around, Mud played and I remember the Cocteau Twins were very good.

the man who

We spent one whole term learning about the forces in a rod of metal as you twist it. There were four people on that course and half the time the lecturer didn't turn up. We used to sit in the back of lectures doing Melody Maker and NME crosswords.

"The male/female ratio was not too grand either – 90 per cent were men and a couple of those looked like Einstein – they lived and breathed maths."

It's a bit of a shock to find that a man whose life could have been very different without computers, actually has a loathing of them.

"I hated computers at College. We worked in the old computer wing near the Science Museum. I had compulsory courses in my second and third years and in those days, computers were so antiquated I couldn't stand it! I always chose courses that took the least amount of time.

"Either you're a computer nerd or you're doing it as a job. Even to this day, computers annoy me immensely."

CURSE

Opening up memories of decades past has a price. A Channel 5 television programme, *The Curse of FriendsReunited*, laid the blame for memories gone bad at the feet of the website.

"It was a complete hatchet job and awful journalism. They ran an advert asking people if their lives had been blighted by the site. We received 35 questions about people whose lives had been ruined and appeared briefly on the programme. We are responsible for putting people back in touch, not what they do after it."

The success of the site is undeniable and is reflected in the constant coverage. It has appeared in questions on the television programme, *15-1* and featured on *Have I Got News for You*.

Steve and Julie have launched *FriendsReunited* dating, and a book has been published entitled *FriendsReunited: Remarkable Real Life Stories from the Nation's Favourite Website*.

Genes Connected, which gets a quarter of a million hits a day, has been developed by Steve and his brother Neil. An alumnus section, a section for the armed forces, and a site which helps you find old neighbours you've lost touch with, have been launched as part of *FriendsReunited*.

Launching on Sky Television as an interactive site where people can register through their TVs, *FriendsReunited* is clearly a project to run and run.

"EITHER YOU'RE A COMPUTER NERD OR YOU'RE DOING IT AS A JOB. EVEN TO THIS DAY, COMPUTERS ANNOY ME."

hates computers

"Finding out what people are doing has always been the hook. Originally it was about your best friends from primary and secondary school becoming a new set of mates. Now it can be a general contact system – you can arrange anything for anybody, anywhere."

One thing Steve's not too keen on is retaking his Imperial maths exam, despite his website offering people the chance to relive their school and College experiences with self-imposed resits.

"I'm not intuitive and I struggled to get a 2:1. It was all down to revising theories and having a good memory," he insists.

Ailing maths students with a penchant for business should take note...

To boldly go...

BY NIGEL BELL

WHEN THE IMPERIAL COLLEGE CENTRE FOR ENVIRONMENTAL Technology was established as the College's first interdisciplinary Centre in October 1977, our approach to the identification and resolution of environmental issues was viewed by some academics almost as heresy. The Centre was founded on the premise that problems of the environment not only needed the services of scientists and technologists, for which the College was and remains world-renowned, but equally those of social scientists. This took the form of expertise in environmental policy, law, economics and management – subjects which were lacking or relatively low in prominence at Imperial.

It was with a sense of pride that we celebrated our 25th anniversary with a reunion on 9 November 2002. Around 100 people took part, with students from as far back as the first year of the course returning to College. One of these, Sue John, is now teaching my youngest son in Wales and did her project under my supervision in 1978! Head of department, Professor John Beddington FRS, welcomed guests and I regaled attendees with my usual news of the course and reflection on its history.

It was highly appropriate that our guests of honour were prominent in the gestation of this unique organisation, Lord Flowers, Rector at the time, and his wife Lady Flowers. Brian was very supportive of the Centre in its inception, exemplified by the fact that the only teaching he did during his period as Rector was a lecture for the Pollution option. This was something for which he was particularly well qualified, as former Chairman of the Royal Commission on Environmental Pollution.

The other guest of honour was Gordon Conway, President of the Rockefeller Foundation in New York and a visiting professor in the department. The first director of ICCET and the MSc, he gave a fascinating lecture with the intriguing title of 'Janus, Harry Potter

and Globalisation'. Gordon was recently made a Fellow of Imperial College on Commemoration Day. After delivering the keynote speech at the Commemoration Eve Dinner, Gordon also gave the Centre an environmental policy seminar on 'We the Peoples: Maps as Development', as part of the series he inaugurated in October 1977.

Another reunion of note took place on 5 September 2003, organised by Aless McConville for her 1992/3 year. This was held in 170 Queen's Gate and was attended by 18 staff and students. Notable by his absence was Richard Santner, for the very good reason that he was marrying next day Sarah Pellowe of the 2001/2 cohort, whom he met while lecturing on the Pollution Management option!

The evening was a delightful occasion, bringing back many happy memories of a great year. People travelled very long distances to be present, with Carrie Johnson coming from Singapore and Roberto Adler from Brazil. Aless prepared a booklet for the participants and those who could not attend, giving details of our alumni in terms of their current whereabouts, career, current job and favourite memory. The latter was invariably Thursday evenings and having the core course lectures in the disused Garden Restaurant in the basement of Southside, where I seem to remember we were subjected to the thundering feet of martial arts enthusiasts in the gym upstairs.

The course goes from strength to strength. This year we hit the jackpot with 158 students, largely due to a new option on Environmental Economics and Policy, convened by Susana Mourato and Clive Potter. Despite large numbers, we retain the family atmosphere that has been such a happy feature of the course since 1977. The rich mix of backgrounds and experience of the students continues to provide a really exciting environment – we have had our first vet and theologian during the last two years.

The course grows more and more international in make up, with

REFLECTIONS ON 25 YEARS OF ENVIRONMENTAL TECHNOLOGY

about 40 per cent of our students coming from overseas. This year we have welcomed our first students from Venezuela, Trinidad, Qatar and Tahiti. A very clear trend in recent years has been a progressive increase in student numbers from the People's Republic of China, doubtless reflecting the growing interest in solving the severe and growing environmental problems of that massively and rapidly industrialising country.

I believe that the great success of the course in terms of attracting the highest quality of applicants and placing them in relevant environmental jobs is largely based on our keeping the syllabus and structure under continuous review. In particular the core course has been restructured to provide a more rational programme with greater time for student-based learning. This has been achieved under the able leadership of Bill Sheate (Ecological Management 1984), its Director, and my deputy. Currently Bill and I are having a major review of the nine options we offer.

In addition to Bill, a number of the option convenors are our graduates: Matt Leach (Energy Policy 1991, PhD 1994), Rob Gross (Energy Policy 1998) and Nick Voulvoulis (Water Management 1997). The continuity of the course is reflected in this trend. In many ways you – our alumni – are our most valuable resource. The alumni email network, which is primarily used for information on jobs, is of enormous benefit to our current (and past) students for their careers. On this matter I remain careers advisor and am always available to our alumni for help.

Alumni also continue to provide valuable teaching inputs to the course. Many give environmental policy seminars during the first two terms, providing superb role models for the present students.

I particularly enjoyed chairing the seminar on 11 December, which was given by Angela Mawle (Environmental Radioactivity 1989), whom many will remember spent several years as ICCET's administrator. After a varied and illustrious career, Angela is now Chief Executive of the UK Public Health Association – one of many of our alumni who have reached top positions.

I look forward to our 30th reunion in 2007. In the meantime season's greetings and all best wishes for 2004.



Guests at the 25th reunion in November 2002

Left to right: Lord Flowers (former Rector, Imperial College London), Lady Flowers, Gordon Conway (President of the Rockefeller Foundation and founding Director of the Imperial College Centre for Environmental Technology), Professor Nigel Bell (Director MSc Environmental Technology), Professor John Beddington (Head of the Department of Environmental Science and Technology).

IDEA League

Third IDEA League sports event_2003

BY TANYA REED

THE MAN WHO RAN THE 'MIRACLE MILE' WHILE A STUDENT AT the former St Mary's Hospital Medical School, watched winners Imperial romp home in the third IDEA league sports event 2003.

Sir Roger Bannister, who ran the first sub-four-minute mile – 3:59.4 – at Oxford on 6 May 1954, explained the art of record breaking at the time as: 'the ability to take more out of yourself than you've got'.

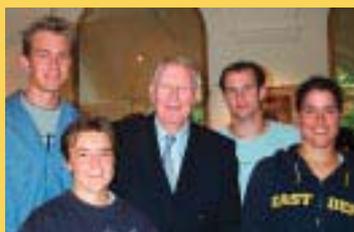
Around 50 students from around Europe tried to do just that during the five kilometre race in Hyde Park on 18 June which featured teams from Imperial, Aachen, RWTH, TU Delft and ETH Zürich. The two day event, hosted by Imperial, tested prowess in a variety of sports, including rowing, football and ultimate frisbee.

At an evening reception, Sir Roger, who joined St Mary's as a clinical student on an Open and State Scholarship in 1951 and qualified as a doctor in 1954, remembered: "It was a lovely hospital and medical school. In those days, it was small enough for everyone to know each other. I met Sir Alexander Fleming when he was a teacher.

"I'm still a believer that medical students should do as much sport as they can which is why I'm glad to be here today. In the post-war world, if you had this wish to do something, it was translated into climbing Everest. In my case, it was the four-minute mile. It was a tradition. However, there is a vast difference between Olympic sport and ordinary sport. I ran daily up to the age of 75. Now I use a bicycle and play golf."

Sir Roger was a consultant neurologist at St Mary's Hospital and the Western Ophthalmic Hospital from 1963 to 1985, and subsequently consulting neurologist. He also chaired St Mary's Hospital Medical Committee from 1983 to 1985 and has been a trustee of the St Mary's Development Trust since 1994 and its Chairman since 1998.

"Many students don't have the time to train. They want fun and companionship and to do things with their friends, which I fully understand. In my day, everybody thought they could do anything



Team captains Thorsten Unyer, rowing; Anna Steiner, women's football; Jurg Klingelfuss, men's football; and Melanie Kunz, ultimate frisbee enjoying refreshments at 170 Queen's Gate with Sir Roger Bannister, centre.

PHOTO: TANYA REED

and universities had a reputation for running the mile, which was repeated in the late 1970s when there was another burst with Sebastian Coe and Steve Cram."

The 2004 event will be hosted by Aachen. The IDEA League was set up by the heads of the four universities to create a European equivalent of the US Ivy League.

A sporting time for all

Imperial won the running and came joint first overall with ETH Zürich, scoring 16 points. The rowing proved successful for the women's coxed four from TU Delft who beat Imperial in the final, and, in an incredibly close finish, the Imperial men's eight beat Delft by half a metre.

At Harlington sports ground, teams took part in women's and men's football, as well as ultimate frisbee, which was won by Aachen.

In the men's football tournament, Zürich beat Aachen 3-1 on penalties in the final. In the women's 5-a-side football competition, Zürich beat Aachen in the final.

Everyone was also given the chance to take part in fun cricket, with opportunities to learn how to bowl and to bat an over each. Trilingual umpire David Norton was on hand to explain some of the trickier laws and to see fair play.

Trophies were presented by the rector and president of the IDEA league, Sir Richard Sykes.

Building a dream



BY TANYA REED

WHEREAS MANY STUDENT DREAMS ARE CONSTRUCTED IN THE classroom, 64 undergraduate civil engineers have carved and dug themselves a place in history as the first in the UK to create real life construction projects, thanks to a unique £30,000 donation from an enterprising contractor whose technical director is an alumnus.

The privileged students were given their own construction site in May and five days to build a concrete dam, a concrete arch bridge and a cable-stayed bridge.

Property developers, Stanhope, donated vacant land at their Chiswick Park office estate, and bulldozers and diggers from John Doyle Construction created an artificial river 12m wide and 90cm deep, fed by a fire hydrant.

The construction company also installed temporary offices and facilities, plant equipment and safety gear, and their staff acted as consultants, subcontractors and safety overseers.

The ‘Constructionarium’ was cooked up between Chris Wise, Department of Civil and Environmental Engineering, Professor of Creative Design, and Peter Goring, Technical Director for Doyle’s who studied civil engineering at Imperial between 1978 and 1981.

“In the end, engineering is about making things,” commented Chris. “Where better to learn construction but on a real site with real concrete, real mud and grown up Tonka toys?”

“We’ve been egging on the construction industry to help the students get their hands really dirty, and Doyle’s has risen to the challenge brilliantly. You only had to watch the students to see how much of a kick they got out of the whole enterprise... many said it was inspirational, amongst the best things they had done in their whole time at College. They were so determined to make it a success, that they worked all hours to bring their projects in on time.”

Adding to the gritty reality, student teams negotiated a price for their project with their client while keeping within budget as costings were scaled up to real life. They chose between slow but cheap manual labour or quick but costly machine-operators,

experiencing how to make critical management decisions as well as technical decisions.

Lecturer Alison Ahearn applied for a Teaching Development Grant to capture progress on film, using Colin Grimshaw and Martin Sayers of the Imperial College TV Studio.

“The event was really an adventure with no guarantee of success, but the students and staff made it succeed,” she explained.

“Everyone’s impressions were recorded at all the different stages of the project, and it was clear early on that some teams had ‘too much democracy’ and technical decisions were not being made quickly enough. Staff had to learn to bite their tongues and resist the temptation to give students too many ‘pointers’.

“By the fourth day, all teams had climbed steep learning curves and their productivity had shot up. The interviews show a move from anxiety to cautious optimism then elation as all completed their tasks successfully.”

Peter Goring concluded: “It’s been an emotional experience. The majority of students hadn’t been on a site before and there were many ‘penny dropping’ experiences when you could see from their faces that something had fallen into place.

“One of the things you can get out of engineering is the ability to stand back and say you’ve done something. That’s not the experience you get in a classroom – when I was a student, all I had to go on was the experience of my peers and what I could find in text books.

“Civil engineering needs to reinvent itself and become more popular as a career choice. Providing practical experience without overdoing it is one way to achieve that, and a similar project to this one could well be repeated in future years.”

feature

“OPTIMISM WITH UPLIFT IS THE KEY AT CHELSEA AND WESTMINSTER.”

Healing through



BY LIZ GREGSON

OPENED IN 1993, THE CHELSEA AND WESTMINSTER HOSPITAL IS London's newest teaching hospital, and one of five London hospitals which provide on-site teaching for Faculty of Medicine undergraduates.

The hospital began its arts programme in 1993 with less than auspicious beginnings and for a number of reasons.

The question of 'who was going to take responsibility for the art collections of the closing hospitals and who would decide what went where' was the last agenda item at the last meeting of the committee which oversaw the closure of the five hospitals the Chelsea and Westminster replaced.

A committee was established under the chairmanship of orthopaedic surgeon, James Scott, to resolve the issue, and the arts project was born.

The programme began with the task of overseeing the transfer of the old hospitals' collections. But when he saw the designs for the new hospital, James Scott quickly realised that there were large areas of space that would need to be filled with colour.

The design incorporated the world's largest naturally ventilated atrium, including six columnar spaces, which were ideal for exhibiting works of sculpture. Although the existing collections were a good start, many more pieces were needed.

Clearly, the hospital could not afford to commission works for all of the spaces, so the committee approached bodies such as the Arts Council, the Contemporary Art Society, the Henry Moore Trust and the Tate Gallery to enquire about possible sculpture pieces for loan. As well as sourcing London galleries for works, local artists were asked to get involved, including sculptor Allen Jones. His 18 metre-high sculpture, *The Acrobat*, enjoys the accolade of being the world's largest indoor sculpture.

In fact, so monumental was the project, the design had to be

agreed before the construction of the hospital could be finalised as the base is incorporated into its foundations. Says James Scott of the sculpture: "Allen used to live near to one of the old hospitals. I wanted to fill the atria with colour and suggested to him a monumental steel dancer. Many supporters gave large sums of money to make the commissioning of this piece, which cost £100,000, possible and it really launched the arts project and showed us what we might be able to achieve."

Another early project for another of the columnar spaces was *Silk Banners* by the late Patrick Heron. "Patrick had a flat near the hospital. I saw his banners in the new Tate shop in 1989 and took him into the hospital to suggest very large silk banners which would hang in an atrium. He thought it a very bad idea. I persisted. Patrick's architect daughter and son-in-law ingeniously worked out how to suspend them by means of trapezes from the roof. Sometimes they swing alarmingly and I think they are fading. Patrick was sure that they are not. Once or twice in the late evening I caught him standing in silent contemplation, admiring them" says James.

Elsewhere, throughout the five-storey building, artworks in most media are displayed. The Chapel is now home to *Resurrection* by Veronese, which was inherited from Westminster Hospital and is one of the works of art which started off the programme over a decade ago.

From its beginnings in housing existing works and filling the hospital's corridors, wards and public spaces with colour and texture, the arts programme has evolved. It now encompasses the performing arts, and weekly performances are staged both in the wards and on the hospital's stage in the centre of the atrium.

James recalls: "The music was initially the most difficult and unpopular part of the project. Many staff and patients found any noise and dance distracting and intrusive. We consulted as widely

the Arts



CHELSEA AND WESTMINSTER
HOSPITAL ARTS

as possible and changed the performance times. Now we have an orchestra in residence and there is a major outcry if performances are cancelled. The acoustics of the hospital are particularly good – I recall hearing a lone saxophone playing in the middle of the night. The effect was very haunting, beautiful.”

At the inception of the arts programme, Hospital Arts was founded with an initial grant of £250,000 from the hospital's charitable funds to oversee this monumental task. Funded entirely by charitable donations, it has been working within the hospital since it opened in May 1993. Hospital Arts has become responsible for providing all the visual arts within the hospital, as well as providing the programme of live performances in the public areas of the hospital and in the wards.

Under the directorship of Susan Loppert, it has staged the world's first music festival in a hospital, the first opera performed in a hospital, and was one of the six 1996 finalists for the National Art Collections Fund Prize. Hospital Arts has been cited for 'its innovative and imaginative approach to hospital healthcare which enhances the experience of patients, staff and visitors'. Incidentally, or perhaps coincidentally, staff turnover at the Chelsea and Westminster is the lowest of all the London hospitals.

Presently, the project has around 1,000 pieces in its collection, be they donated by the artist or collector, loaned or paid for via donations to the project. Susan Loppert's ultimate aim is to have a work on every wall of the hospital. The arts programme has rewritten the rulebook with regard to what was thought to be acceptable in hospitals, with bright colours and opera residing alongside what might be considered more traditionally soothing and healing. According to Susan Loppert: "Optimism with uplift is the key at the Chelsea and Westminster."

Music and arts are long established forms of therapy and

recovery, although it is generally unknown why this is. It might be as simple as providing a distraction for patients from their predicament and pain. In an attempt to answer this question, Hospital Arts established a research programme in 1999, largely in order to attract further funding and develop the programme.

In an earlier experiment, a music workshop in the antenatal ward of the hospital indicated a link between music and foetal heart rate. Different pieces of music produced varying heart rates in the foetus. It was found that Bach produced a steady heartbeat while Bizet's *Carmen* produced an accelerated rate.

The results were perceived as important because response by the foetus to stimuli is a sign of a healthy baby. This initiated further research in the area of physiological reactions to exposure to the visual and performing arts.

In 1999, a £3,000 award from the hospital's research committee enabled a project to get underway led by Dr Rosalia Staricoff. In the initial stages, around 80 per cent of patients surveyed stated that they found that visual and performing arts and live music in particular, reduced stress levels, improved mood and diminished the immediate worry relating to their illness.

The project was further boosted in 2000 when a £70,000 grant was awarded to the study by the King's Fund, enabling clinical measurements to begin. In this phase, studies were undertaken with cancer patients receiving chemotherapy. A key finding was that depression was lowered in around one third of the 83 patients who were exposed to live piano music and regular changes of visual art which surrounded them.

More recent studies have examined whether live musical performance and exposure to visual art could reduce the need for painkillers in hip surgery patients, as well as testing whether this could affect the length of stay in hospital. In addition, women having day surgery for the removal of pre-cancerous cells from the cervix were asked to listen to guitar music and look at the murals on the ceilings as they were wheeled into the operating theatre to test if the amount of anaesthetic required to induce unconsciousness could be decreased.

Early indications from both studies are positive, and the King's Fund has, as a result of this and the earlier studies, provided over £1 million to hospitals in London for investment in art and improved architecture. A nice conclusion for an innovative programme whose humble origins stem from the last agenda item of the last meeting.

Today there are around 150 undergraduate Imperial medical students allocated to the hospital where they attend clinics and get their first impressions of working in a hospital. An additional 20 students are currently studying modules towards the BSc in Surgery and Anaesthesia, and there are research facilities for a number of PhD and MD students. The students are supported by 110 Imperial staff members who work at the campus.

Various alumni groups have visited the hospital since it opened. The Charing Cross and Westminster Medical School Alumnus Society have celebrated several Old Students' Days there, where attendees took part in ward rounds and listened to lectures. Two years ago, the Westminster Medical School class of 1971 celebrated their 30-year reunion at the hospital with a dinner and a tour of the hospital's arts programme.

feature

WORK EXPERIENCE, WORLDWIDE FRIENDS, AN UNFORGETTABLE SUMMER... RING ANY BELLS?

Were you an IAESTE trainee?

DID YOU GO ON A WORK PLACEMENT ABROAD ORGANISED BY THE International Association for the Exchange of Students for Technical Experience (IAESTE) when you were a student at Imperial?

Since its start in 1948, 22,000 British students have benefited from international work experience through IAESTE and it is these past participants we want to find.

With the continuing success of the programme, we are keen to form an alumni group to keep you up to date with developments in the programme. We hope that, having benefited from the exchange, you will want to retain an interest in IAESTE and help take steps to promote the programme worldwide.

We would like to hear from ex-trainees who would like to join our alumni group. You may want to discuss the option of becoming an IAESTE employer or if you are based at a university, promote IAESTE to students in your department.

We will be producing a quarterly alumni newsletter featuring stories, news and information about forthcoming events. There is no subscription fee. You will be registered on our database and kept up-to-date on the IAESTE programme's achievements, getting involved as much or as little as you wish.

Now in its 55th year, IAESTE continues to provide course-related paid work placements abroad to science and engineering students all over the world. At present 84 different countries participate in the scheme.

The organisation was founded at Imperial College in 1948. In the first year 900 students from nine different countries participated in exchanges. IAESTE UK is now based at the British Council, a government funded charity which connects people worldwide with learning opportunities and creative ideas from the UK, as well as build lasting relationships between the UK and other countries.

The strong link between IAESTE and Imperial College London continues to this day. In 2003, 21 Imperial students were sent to countries including Canada, Kazakhstan, Japan, and Botswana.



Correspondingly, academic departments at the College continue to support the programme, with 14 foreign students undertaking placements in Biological Sciences, Chemistry, Materials, Medicine, Physics, and many branches of engineering.

Please email iaeste@britishcouncil.org to contact us, or write to

Diane Gill
IAESTE UK
Education and Training Group
The British Council
10 Spring Gardens
London SW1A 2BN

If you live outside the UK, there is sure to be an IAESTE office in your country. Simply visit the international website at www.iaeste.org to get the list of worldwide contacts.

"I HAD ALWAYS ASSUMED I'D DO MEDICINE. STARTING AT HAMMERSMITH GAVE ME A FLYING START."

Mark Walport bows out



BY TANYA REED

DR MARK WALPORT WILL MISS HIS WEDNESDAY MORNINGS AT Hammersmith Hospital's staff rounds – the weekly case presentations in the Stamp lecture theatre which he chaired regularly for many years.

"Three cases are presented, followed by discussions," he tells me, on the day he's clearing his office on the third floor of Hammersmith Hospital's faculty building, in preparation for his new job as Director of the Wellcome Trust.

"The standard is very high, and a majority of the senior staff attend. They provide a superb training for young doctors – if they can present at Hammersmith, they can present at the largest international congress around."

Surrounded by boxes and bin bags, we look out across London. Close to the London Eye and the Post Office tower, the Queen's Tower can clearly be seen. It's a view the first Head of the Division of Medicine at Imperial College London will also miss.

"Hammersmith has been a wonderful place to do clinical science. It has a tremendous ethos for research and I'm proud to have helped develop a research lab and to have been the first Head of the Division of Medicine, playing an instrumental role in getting the merged medical school off to a flying start."

He'd like the research department to continue to train very bright young doctors to be the clinical investigators for the future. "It's a very powerful training environment with a strong emphasis on transferring medicine from the lab to clinical practice."

Dr Walport first joined Hammersmith Hospital as a senior house officer in 1978. After a short stint of SHO posts elsewhere in London, he returned to Hammersmith in November 1980 as a registrar in general medicine and rheumatology. After PhD training in Cambridge with Professor Peter Lachmann, Hammersmith beckoned again and since 1985 he has progressed from Senior Lecturer in Rheumatology to Professor of Medicine, with an additional stint as Director of Research and Development at Hammersmith Hospitals Trust. In 1997 following the merger of the

medical schools in West London with Imperial College London he was appointed as the first Head of the Division of Medicine.

His mentors included Professor Sir Colin Dollery at Hammersmith to whom he was Senior House Officer in 1978. "He was my first contact with the academic consultant staff and clinical science at Hammersmith when I was a very young doctor.

"As a Cambridge graduate student, Peter Lachmann taught me a rigorous and questioning approach to science. There have been many other mentors along the way."

As a child, the professor enjoyed natural history. During 'A' levels, a 'hands-on' charismatic biology teacher interested him in the genetics of fruit flies.

"My father was a GP and I had always assumed I'd do medicine. Starting at Hammersmith gave me a flying start.

"I've always been an experimentalist since being a student. In order to study disease, you need to do experimental medicine. I have always undertaken experiments on humans, including myself. In 1980, I remember inhaling allergens and I had a bronchoscopy but I coughed so much, the whole thing was disastrous."

His subsequent work has proved much more successful, taking him around the world, predominantly to Europe and the United States. He has also produced countless papers on a variety of subjects from asthma to lupus and has held positions such as Chairman of the Research Ethics Committee and Chairman of the Research and Development Committee of the Hammersmith Hospitals Trust. He helped to found of the Academy of Medical Sciences as its first Registrar.

His advice to other up and coming young hopefuls? "Pursue your enthusiasm and be brave. Academic medicine doesn't offer a straightforward career but there are many creative opportunities and it's so diverse, you should go for it.

"The skills you can learn at Hammersmith are very important in both science and clinical medicine. You are taught the important medical questions to ask."

Dr Olivia Judson's

BY TANYA REED

WHEREAS DR DOLITTLE
MERELY TALKED TO ANIMALS,
RESEARCH FELLOW DR OLIVIA
JUDSON HAS DELVED SO
DEEPLY INTO THEIR PSYCHE
THAT HER FINDINGS HAVE
CATAPULTED HER INTO THE
BESTSELLERS' LIST.

Dr Tatiana's Sex Advice to All Creation transports Imperial's biological scientist into the realms of concerned agony aunt for the animal kingdom.

They certainly need help if the questions are anything to go by. Wretched in the Wilderness, an Australian redback spider demands to know why his partner refuses to eat him. (Pick your moment and wait until she's hungry.)

As for Too Much Heavy Breathing Near Malta, she's in a right pickle. The green spoon worm with an itchy nose decided to sniff and inhaled her husband. (It's no use crying over snuffled husbands. He wanted to be snuffled and he's not coming back.) The male is 200,000 times smaller than the female and has sex with her by making himself at home inside her reproductive tract.

Quite how such a refreshing formula retains its scientific thoroughness, is a major coup for the 33-year-old Dr Olivia Judson. Writing *The Definitive Guide to the Evolutionary Biology of Sex* was like giving birth to an elephant, she says.

The book took four years to compile and write, drawing on others' work and crediting them accordingly, hence the 63 page bibliography. Imperial's libraries and databases proved a godsend.

"It meant it wasn't just a gimmick but a serious project," she explains. "I wanted to write a book that could be understood by everybody, not just professional biologists. It also seemed a useful vehicle for making natural history vivid while posing important questions."

Just how important was reflected in its nomination to be shortlisted for the Samuel Johnson Prize for Non-Fiction. The prizegiving included a short film by BBC4 featuring an actor who played Dr Tatiana, quizzed by animated animals including a queen bee and sage bush cricket.

"I felt very privileged. I was the youngest person in the room. If I'd won, I'd have been a pioneer."

animal magic



EXPLODING HONEY BEES

The idea for the book came from an article written for the *Economist* which grew out of a three-page special about the evolutionary biology of sex.

“The first draft was rather stiff. But I went to a party with some colleagues and was joking about the problem with the queen bee – that her mates explode – and someone said, imagine what it would be like to be a sex expert getting that sort of question. I rewrote the draft in the style of an advice column.”

In 1998, the article won the Glaxo Wellcome British Science Writers’ Association Prize. “On announcing the winner, Sir Richard Sykes handed me the cheque for £2,500 and said: ‘The sex advisor has it.’”

Olivia spent a year trying to find the right voice for her book. The original article wasn’t substantial enough, was too heavy handed and overly technical. A better balance was needed.

In Dr Tatiana, she found a lighter prose. “When I first write something it sounds more like a text book. If readers aren’t familiar with certain words, they trip and reading becomes a chore.

“I’ve written my way around technical terms as much as possible. I’ve constantly tried to make things clear without oversimplifying them.”

Nothing is clearer than the sad plight of the queen bee. All my lovers leave their genitals inside me and then drop dead. Is this normal? she asks, perplexed.

The answer? ‘When a male honeybee reaches his climax, he explodes, his genitals ripped from his body with a loud snap... His mutilated member is intended as the honeybee version of a chastity belt’.

Science is very much in her blood. Her father, Horace Freeland Judson, wrote *The Eighth Day of Creation*, a history of molecular biology, and her brother is a microbiologist at MIT.

She considers anthropomorphism is often wrongly condemned –

as well as being amusing, it can be a powerful aid to the imagination.

“When I took animal behaviour classes, I was told that anthropomorphism was a big no no. But when I went to graduate school, I started reading more widely and saw that both Darwin and Bill Hamilton, my PhD supervisor, regularly put themselves in the places of organisms they were watching, gaining invaluable insights.”

In America, the book has become a tool for postgraduate reading groups, while middle school teachers in Kansas City are using it to interest students in biology. The University of Arizona has included it in biology courses.

“People at different stages get something from it – for some, it’s a springboard for discussion.”

The book’s success has guaranteed television coverage worldwide, as well as some ‘David Attenborough’ moments. The *Washington Post* insisted she sit in a penguin enclosure where the more knowledgeable birds waddled over to peer inquisitively at the book over her shoulder.

Her future looks equally busy. She appeared on CNN on Valentine’s Day although television and radio interviews make her nervous. “I turn into a gibbering wreck and remote TV is the worst – just you, a camera and a voice in your ear. “Television amplifies movement, particularly eye movement. At one airport with CNN, there I was, looking totally insecure with demented eyes.” Meeting her in the flesh, she is witty, hilarious and fun. With a follow-up book on the horizon, she’d better start practising for more television appearances.

On 19 November 2003 Dr Judson gave a lecture to the Friends of Imperial College about her book. Signed copies of her book were available and a percentage of sales have been donated to the Student Opportunities Fund.

Welcome to the Imperial College Association pages!

As reported in the last issue, we have formed the Imperial College Association as an umbrella organisation that brings together both affiliated and non-affiliated activities of alumni and supporters of Imperial College.

Now known as chapters, the constituent college and school associations, international groups and the Friends of Imperial College have long provided their members with a particular sense of inclusion and affiliation. They form an integral part of the Imperial College Association, making its reach wide-ranging and global.

On the following pages, we are pleased to bring you news from some of our local and international chapters, and from our individual alumni members around the world. Read on to find out more about the 25th anniversary celebrations of our alumni in Singapore, the final Charing Cross and Westminster Old Students' Dinner and much more...

news from the chapters

Agricola Club

Past students, ancient and modern (mostly the former!), gathered at the Wye campus on 20 September for the Agricola Club dinner. This event, held annually to coincide with the Club's AGM, was oversubscribed for the first time in some years. Three separate year groups had made special efforts to draw in as many of their contemporaries as possible. Represented among the 160 or so attendees was a large group of 1953 leavers, an even larger team of 1963 entrants and members of the class of 1973.

Tours of the College farm and gardens were followed by an evening reception and dinner, held in Wye's magnificent panelled dining room. Professor Jeff Waage, Head of the Department of Agricultural Sciences, informed us that the 2003 intake of freshers and postgraduates, at 170, was a record for recent years. Although there are no freshers reading straight agriculture this year, the combination of environmental, management and business studies is probably a truer reflection of the needs for sustainable agriculture of the future.

Guest of honour at the dinner was former member of staff Professor Alan Buckwell, who is now Director of Policy for the Country Landowners' Association. In a lively presentation, a more sombre note was struck through reflection on the WTO talks in Cancun and the unwillingness of the larger countries to abolish (or significantly reduce) farm subsidies. He also highlighted the British Government's alternative implementation strategies for the revised EU agricultural policy and the inevitability of there being winners and losers amongst British farmers.

The Agricola Club is keen to assist with professional development. A working group is currently investigating a number of initiatives to support members in developing their careers through networking with past students and in supporting appropriate CPD initiatives. The



Wye alumni 1963-1966 at the Agricola Club Dinner

starting point will be an annual seminar to give existing students an overview of the opportunities within land-based enterprises worldwide. A professional register of members is also being prepared.

Closer to home, the Club traditionally administers substantial funds to support the College's student body and the campus itself. The recently launched undergraduate and postgraduate 'Agricola Scholarships' are good examples of this. The Club also provided the Students' Union Rugby Club with a set of new sports shirts, and a number of financial awards were made to students experiencing particular hardship. Finally, the annual short tour, part funded by the Club and established in an effort to ensure that overseas students have the opportunity to visit places outside the immediate vicinity of East Kent, was made to Wakehurst Place in Sussex.

JOHN WATERS
EDITOR, AGRICOLA CLUB JOURNAL

Business School Alumni Network

In December, Marcel Cohen will step down as Director of the EMBA programme after four years, the longest serving Director to date. Fortunately, Marcel's marketing skills will not go to waste: he will take over from Roger Betts as Director of the Distance Learning MBA.

Thanks to Roger for getting the Distance Learning off the ground, and we wish him well for the future.

Tom Hoehn, a partner in PricewaterhouseCoopers' valuation and strategy practice, has been appointed a Visiting Professor at Imperial and will be the next Director of the EMBA. He has written widely on regulation and other subjects. Demonstrating that top global employers like PwC are behind our MBA programmes will add



The new Tanaka Business School nears completion

substantially to their credibility and the Business School looks forward to building stronger links with PwC and similar employers in the future.

Stefan Szymanski has been appointed Director of the full-time MBA programme. Stefan is one of Europe's leading experts on the economics of sport as a business, on which topic he appears regularly on TV and radio, and in business media such as the *Financial Times* and the *Economist*. He is particularly known for his work contrasting US and European rules under which football operates, and on the economics of Olympic bids.

The influential WHICH MBA? survey for 2003, conducted by the Economist Intelligence Unit, has just been published. Of the global top 100, Imperial Business School has leapt from 61 last year to 37 this year. In the UK, we are not far behind LBS, and we are ahead of Oxford, Cambridge, Warwick, and Cass. This assessment is based on a survey of alumni and current students and we look forward to continuing to climb up the rankings.

The new Business School building is rapidly taking shape. At the heart of the project is a multi-purpose Forum, an open area on the ground floor serving as a central social point for Business School students. The Forum's café and bar will provide a chance for students to interact with faculty and staff in a more relaxed environment.

PAULO GOMES
BUSINESS SCHOOL ALUMNI NETWORK ADMINISTRATOR

Charing Cross and Westminster Medical School Alumnus Society

The 'Last Charing Cross and Westminster Medical Dinner', took place at the Savoy Hotel on 3 October 2003. The Lancaster Room was filled to capacity with 492 alumni of the three former medical schools – Charing Cross; Westminster; and Charing Cross and Westminster – and their guests.

Dr Bob Phillips (Westminster 1972) chaired the dinner. After almost 40 years of working, teaching and, most importantly, playing and supporting both international and student rugby at the Westminster, Charing Cross and Westminster and then Imperial, he had many memories to impart. The toast to the Chairman was given by Mr Meirion Thomas (Westminster 1969), who used all the splendours of modern technology to present a pictorial panorama of Dr Phillips' life in medicine and rugby.

A marvellous souvenir programme with a history of the event and the Schools was prepared by Mr



Chairman Bob Phillips enjoys the 'Last Old Students' Dinner' at the Savoy



Attendees at the Old Students' Day at the Chelsea and Westminster

Humphrey Roberts (Westminster 1957), assisted by the Medical Illustration Unit at Chelsea and Westminster and the Alumni Office at Imperial. The dinner was preceded by the Old Students' Day at the Chelsea and Westminster Hospital, with the support and encouragement of the Hospital Trust. We owe a great debt of gratitude to Mr Thomas and his dedicated team for devising and organising 'a spectacular event, which was hugely enjoyable'. It remains to be seen, of course, whether there will sometime be a 'Very Last Dinner'...

The Society's Alumnus Appeal raised over £55,000 and the Committee recently decided to give a grant of £5,000 from the Fund towards the cost of an air-conditioning system in the students' bar and social area in the Reynolds Building at the Charing Cross campus. Over the past two years, the College has spent £750,000 to refurbish and upgrade the student amenities in the building, not least to help compensate for the loss of student recreational space at the St Mary's campus.

The Committee is also reviewing the support for prizes from the Alumnus Fund in the light of the graduation of the final cohort of Charing Cross and Westminster entrants from the School. They are keen for new Prizes to be given, possibly on the results of Finals, which will continue to sustain links with the former medical schools.

Limited memorabilia for all three former schools are available through Urmila Weller in the Office of Alumni and Development at +44 (0)20 7594 6129; u.weller@ic.ac.uk.

PETER GRIFFITHS
HON SECRETARY

City and Guilds College Association

This is not the usual, 'newsy' article from the City and Guilds College Association. For information on what the Association and its members have been doing in recent months, please read the imminent issue of *Imperial College Engineer*.

For *Imperial Matters*, I thought that it was more important to relate some bad news about Peter Justesen, who has been our mainstay for as long as anyone can remember. In addition, I will explain briefly what is about to happen to the Association, and its key member of staff – Adrian Winchester.

First, it is with great sadness that I have to report that Peter Justesen, our long-standing Honorary Secretary and Treasurer, died on 18 November 2003, without regaining consciousness since a bad fall which left him in a coma earlier this Autumn. Peter has safely steered the Association through all sorts of problems, maintaining high standards in what we have done for the College, for students and for alumni. Our thoughts, sympathy and best wishes go to his wife, Julia.

Regarding the Association, the last five months has seen the start of significant change in the support arrangements for the CGCA. After much debate behind the scenes, some stretching back several years, an agreement has been reached to form a new Faculty of Engineering Chapter (of the Imperial College Association) comprising the CGCA, RSMA, the Faculty of Engineering and the City and Guilds College Students' Union. This new partnership will reinforce the closer links that we have forged in recent times so that alumni can do more for current students and students will see the benefit of joining the Association.

This new style Chapter will be within the orbit of the Faculty, rather than the Office of Alumni and Development. This has been driven, in part, by the reallocation of resources by the OAD which previously funded the associations' office staff, and also by the interest of the Principal, Professor John Perkins, in building on those links between Faculty and alumni. So, whilst the post of our long-standing Executive Secretary, Adrian Winchester, will end at Christmas, we welcome a new Chapter Manager, Dr Teresa Sergot, who will take up the reins of this new Faculty-based post supporting the Chapter and the Associations.

This is the end of another phase of the CGCA's existence, in more

association_chapters

ways than one. On the negative side, after some 15 years of extremely hard working, loyal and effective support of the alumni associations, especially the CGCA in recent years, Adrian Winchester will be leaving the College in December. We have all come to rely on him, particularly his willingness to do almost whatever is asked of him on our behalf, including working weekends and evenings for the good of the Association. We wish him every good fortune in his next career step.

On the positive side, the CGCA will remain autonomous in the way that it runs its affairs, but, through the Chapter, will make good use of the strengths of our partners in the Faculty, RSMA and C&GCU to provide more benefits to members and students by more joint activities. We are also taking the opportunity to modernise our administration by exploiting e-technology. In particular, we are actively participating in the OAD's programme to develop a number of centralised services, for use by all Chapters, such as membership database and electronic payment systems. Being able to use the web and email more routinely should allow us to reach more members, more selectively and more quickly. In turn, this will allow us to organise events more readily, such as October's very successful networking reception for graduating students.

As the CGCA moves into this new era, we have to thank Adrian and, in particular, Peter, for their outstanding work in giving us the basis for providing even more valuable benefits in the future. They have given us a magnificent legacy and inspiration for the future. For more information on how you can help us through these next steps, and to give us your views on what you would like us to do, please email cgca@imperial.ac.uk.

BARRY BROOKS
VICE-PRESIDENT

Friends of Imperial College London

Since the last issue of *Imperial Matters* Friends have held a number of successful evenings. Nearly 100 guests attended an evening entitled *Spinning Gold: innovation and wealth creation* when Dr Susan Searle, CEO of Imperial Innovations Ltd, talked about the College programme of patenting and spin out companies. She was joined by alumni Steve O'Dea and Bruce Garvin, directors of successful spin-out company Ceres Power; Professor David Klug, an Imperial academic and founder of Powerlase; and Richard Harris (Geology DIC 1978), an early stage investor. A lively debate about the best way of exploiting technology was followed by a reception at 170 Queen's Gate.

In October, we held our AGM, which was followed by an illuminating talk by Professor Richard Kitney about how images of the body from the macro level of X-ray through to the molecular level of individual cells could help define disease and build lifelong pictures of an individual's health. He talked about the role that images played in the £2.5 billion investment in information technology currently being undertaken by the Department of Health.

We enjoyed hearing Dr Olivia Judson, an Imperial Research Fellow and author of the hilariously funny and best selling *Dr Tatiana's Sex Advice to All Creation* (see feature on page 22) give a talk on the *Evolution of Female Promiscuity*.

We also hosted our annual Christmas Party at 170 Queen's Gate on 10 December.

The committee is currently working on a full programme for the coming year which includes an evening with author and alumnus Simon Singh (Physics 1987) in April 2004. Simon studied Physics at Imperial College before completing a PhD in particle physics at Cambridge CERN. He joined the BBC in 1990 and was a producer and director on programmes such as *Tomorrow's World*, *Horizon* and *Earth Story*. His documentary about the world's most notorious mathematical problem won a BAFTA and in 1997 he wrote a book on the same subject, entitled *Fermat's Last Theorem*, which was the first maths book to become a No 1 bestseller in Britain. In 1999 Simon

published *The Code Book*, a history of codes and code-breaking, and this will form the subject of his talk to the Friends.

All alumni and supporters of the College are welcome at any of our events. For more information about our programme or how to become a Friend, please email friends@imperial.ac.uk

ROD RHYS JONES
CHAIRMAN

Royal College of Science Association

One of the challenges for the RCSA under the new College structure was how to span the two new science faculties without unintentionally appearing to favour one or the other.

It is therefore particularly pleasing that this year's RCSA Prize for the student who has made the best all-round contribution to the College community has been awarded jointly to Emma Williams of the Department of Biological Sciences and to Jessica Chan of the Department of Physics. Emma has been a leading figure in the College Boat Club, as well as a formidable fundraiser for charity, while Jessica has contributed to the musical life of the College as a soloist with the College Orchestra and Choir and at Lunchtime Concerts. Both have also found the time to excel academically.



Enjoying the London Walk around Mayfair in the summer

Over the summer months members of the Association took part in a number of social events including a visit to BBC Television Centre and the now traditional London Walk, this time around Mayfair.

The Royal College of Science Association lives on but the Royal College of Science Union is no more. We felt that we should say farewell to the Union in style and an RCSU Remembrance Dinner took place at the Polish Club at the end of November. Then, after the nostalgia of that evening, it was back to the future in December when members of the Association met current students to talk about life after Imperial at the annual Careers Forum.

If you would like to join the Association or support the Royal College of Science Association Trust please contact Urmila Weller in the Association office rca@imperial.ac.uk; +44 (0)20 7594 6129 or visit our website at www.rca.org.uk.

DAVID LEGG
HON SECRETARY

Royal School of Mines Association

We held our AGM, followed by the traditional dinner for final year RSM students in June, and the Association's Annual Dinner was held on 20 November. The 17th issue of *Update* was published in mid-October and is on the Imperial alumni website at www.imperial.ac.uk/alumni/publications/chapters/rsma.



**New President
Giles Baynham**

Bernie Pryor's valuable two-year term as President ended at the AGM but he will continue to be actively involved as senior past-president. His successor is Giles Baynham (Mineral Resources Engineering 1995). Giles works in mining finance, and although based in Vancouver, is often in London.

The Association has been very concerned for most of the year for the recovery of the senior vice-president, Charles Hutson (Mining Engineering 1982).

In March, Charles suffered severe head injuries whilst trying to stop a jewellery robbery in Highgate. A further operation to replace the piece of skull that was removed in late March to aid his recovery was successfully carried out in August. By October he had moved to a rehabilitation unit in north London and was beginning to make regular visits home.

RSMA has come to a partnership arrangement with CGCA and the Engineering Faculty. This will allow both Associations to maintain their own identity whilst working together in matters of common interest, with the Faculty providing the administrative support previously supplied by the Office of Alumni and Development. The new arrangements have yet to get under way and we shall be reporting progress in *Update* next March.

We continue to respond, as best we can, to the needs and traditions of RSM students. The RSMA Trust is providing small grants and loans to alleviate student hardship, and we have provided bursaries to assist vacation work with the Undergraduate Research Opportunities Programme.

For the current academic year we will be organising some career-related evenings to discuss the opportunities available in the geology, materials and mining industries, as well as the benefits of RSMA membership. Changes to the students' union structure have meant that the RSMU is now funded as a sports and social club and, as an important element of our activities, we will continue to support RSM events that the RSMU has traditionally organised.

JOHN BRAMLEY
HON SECRETARY

St Mary's Hospital Association

As another cohort of new clinical students arrives at St Mary's enormous changes are being contemplated in 'the corridors of power'. It is all too easy to be overwhelmed with our own problems: the consultant contract, Government targets, the demise of certain services previously taken for granted as being on site, and various strategic reviews which will have a profound influence on how we practice. In this climate it is refreshing to see the young enthusiastic faces of students as they witness new clinical symptoms and signs for the first time.

I suspect that if this were being written 20 years ago, the same complaints would be levied – dire anatomical knowledge, mediocre physiology and non-existent pathology. The difference today – they have the communication skills to eloquently express their apparent ignorance! Nonetheless, both my student groups at St Mary's and Chelsea and Westminster are eager and hungry for clinical knowledge and that is what counts more than anything.

It is these first few terms of introduction to hospital life that will dictate where their allegiances will lie. In the days when the hospital



St Mary's A&E Department, pictured during the recent debate over waiting times

and medical school were almost one and the same, it was easy to represent students past and present with one group, but things have now changed. This was discussed at a recent meeting of the St Mary's Association when it was decided that we would continue for the time being under the above title as a *Hospital Association*. All or any current medical students are very welcome to join the St Mary's Hospital Association, but we also acknowledge that Imperial students after 1998 may also need a Imperial medical chapter. As the number of 'old' Mary's students dwindle, the obvious solution may be a merger, but at present we envisage there is room for both to coexist.

Another noteworthy topic of interest to current freshers was the resurrection of the St Mary's Association Prize. They will, no doubt, be glad to hear that this will not be for academic achievement, but for 'outstanding contribution' to first year College life. There will be three prizes of £100 each, which will be awarded at the end of this academic year.

And finally, I leave you with a caption competition. At the height of concerns and speculation about the '4 hour A&E' waiting target I took the photograph above outside the QEQM building. Please send suggestions to the editor.

MIKE JENKINS
HON SECRETARY

book reviews



La Paix et la Crise: Le Liban Reconstruit? (Peace and Crisis: Lebanon Rebuilt?)

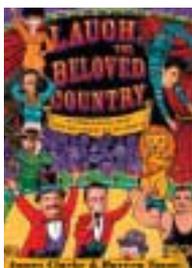
published by Presses Universitaires de France

Following her graduation from Imperial College, **Danuta Pieter (Environmental and Earth Resources Engineering 2000)** went on to study Business Administration and Political Sciences in Paris. She has also held the post

of researcher at the Centre for Geostrategic Studies within Ecole Normale Supérieure since 2001, studying post-crisis reconstruction and reintegration, with particular focus on the Middle East.

This research was very much the focus of the book that Danuta co-authored with Franck Debié, which was published in May 2003.

Peace and Crisis: Lebanon Rebuilt? tells the story of a country 15 years on from civil war, which appears to have found reconciliation and become again a player in the world of international finance. However, the seeming miracle of reconstruction financed by debt must not be allowed to hide the fact that this rebuilding has come hand in hand with increasing inequality and exclusion. Urban modernity hides archaic patron-client relationships and the revival of the tourism industry hides rapid privatisation of the countryside and public space. It is the paradox of an exceptional reconstruction and the hopes and tensions it involved that this book seeks to explore.



Laugh the Beloved Country

published by Double Storey, Cape Town

South Africa has produced an unusual number of culturally varied comic writers, dealing in bitter satire, wild farce, sharp wit and gentle good humour. With a preface by Archbishop Desmond Tutu, *Laugh the Beloved Country* is an anthology of what the editors of the book considered the best South African

humour over the past 200 years. There are contributions from, amongst others, Herman Charles Bosman, Tom Sharpe, Pieter-Dirk Uys and three of **Dr Chris Ellis' (Charing Cross Medical School 1967)** stories are included in the book.

Dr Ellis has lived and practised medicine in southern Africa for more than 25 years. He has also worked as a medical journalist and published humorous works and books, as well as being a published poet. Dr Ellis' doctoral thesis was an existential phenomenological investigation into unhappiness, a paradoxical opposite to his humorous writings. He is presently an honorary senior lecturer in family medicine at the Nelson R Mandela School of Medicine, University of Natal.



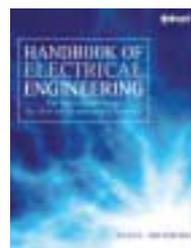
Understanding Learning – A Life's Quest

published by The Memoir Club, County Durham

There are few physicists who have had a career as varied as **Professor John J Sparkes, Senior Lecturer in Electronics 1962-1967**. In his autobiography, he describes periods of teaching physics in both public and private schools, followed by work as a physicist for the

Plessey Company. During this time his work significantly advanced our understanding of transistors, enabling him to return to teaching, firstly as a senior lecturer in electronics at Imperial College and then as Dean of Students at Essex University, during the student revolution of the late 1960s. As Dean of Technology, John Sparkes was instrumental in establishing the Open University

It is this diversity within the world of teaching and academia that has led him to some significant conclusions regarding the nature of human learning and current teaching methods. These are described in *Understanding Learning*, along with the evolution of the author's ideas on science and education. The book concludes with a description of a new teaching strategy called 'learning-centred teaching' in which teaching and learning methods are matched to different kinds of specified learning outcomes.



Handbook of Electrical Engineering for Practitioners in the Oil, Gas and Petrochemical Industry

published by John Wiley & Sons, Chichester

Dr Alan Sheldrake (Electrical Engineering MSc 1970, PhD 1976) began his career in 1960 as an apprentice with UK Central Generating Board, simultaneously completing his MSc and PhD at

Imperial. Since leaving the company in 1975 he has worked on projects located in many different parts of the world, mainly in the detailed and conceptual design of power generating plants. During these projects he has often given lectures on various subjects of power generation and distribution, instrumentation and control and safety.

Developed from this series of lectures, given to oil company staff and university students, the *Handbook of Electrical Engineering for Practitioners in the Oil, Gas and Petrochemical Industry* provides a careful balance between mathematical theory and comprehensive practical application knowledge. A practical treatment of power system design within the oil, gas, petrochemical and offshore industries, this book can be used as a general handbook for application.

Features of the text include practical guidance to the electrical systems equipment used on off-shore production platforms, drilling rigs, pipelines, refineries and chemical plants, numerous 'rule of thumb' examples, and worked examples which can be programmed for future use.

focus on alumni

St Mary's man honoured by South African president

In December 2002 Emeritus Professor Peter Beighton (St Mary's 1957) was awarded the newly established Order of Mapungubwe (bronze) at a ceremony hosted by President Mbeki of South Africa, in recognition of his outstanding contributions to medical genetics.

The Orders have been designed to recognise excellence and exceptional achievement and to reflect the inclusiveness and diversity of a democratic South Africa, its peoples and its place in the African continent. Other recipients of the Order at higher levels included former Presidents Nelson Mandela and FW de Klerk.

Professor Beighton became Professor of Human Genetics in the Faculty of Medicine, University of Cape Town in 1972 and since 1983 has also been Director of the MRC Unit for Medical Genetics. He is a Fellow and former Vice-president of the Royal Society of South Africa, and a former chairman of the South African Human Genetics Society.



Right: Professor Beighton receives the Order of Mapungubwe from President Mbeki
Above: The 2002 recipients of the Order of Mapungubwe. Professor Beighton seated far left



St Mary's reunion celebrates a golden half-century

The Royal Air Force Club on Piccadilly in London was the venue for a reunion of a group of St Mary's graduates on 28 September. It followed a similar but smaller event held there in 2001 which had been restricted to those graduating in 1951 and 1952. This event had proved so enjoyable that it was decided to hold a repeat performance in 2003, but to broaden the parameters to include a couple of years either side of the previous demarcation.

So it was a party of 51 people (graduates, wives and guests) who met up at the Royal Air Force Club for a reception and lunch. Two of the graduates, Pepi Jelinek and John James, accompanied by their wives, had even crossed the Atlantic especially for the party.

As expected, it was a nostalgic occasion. Some had last met nearly 50 years ago (or as one person rather more colourfully put it 'half a century ago!'). The general consensus was that, though a number of faces were difficult to place after the passage of so many years, the voices hadn't changed and were easily recognised. And it was the voices that were put to good use, with many reminiscences and anecdotes being exchanged until the party broke up around four o'clock – but not before passing a resolution to do it all again in 2005!

The venue has been rebooked for Sunday 25 September 2005 and if there is anyone out there who thinks they are eligible for inclusion (and even if they are not!) and who would be interested in joining us for that occasion, you would be most welcome to join us. Please phone me, Freddie Hurrell, on 01252 714190 or email f.hurrell@ntlworld.com for all the details.



Bruce Thomson, Stan Simmons (1951) and Wendy Thomson (1954)

Beyond academia

Professor Alan J Johnson (Metallurgy PhD 1960)

Professor Alan Johnson recently resigned his Chair of Materials Science at the University of Louisville, Kentucky, bringing to an end a long career in research. After graduating in Physics from the University of Reading in 1952, Alan moved to the University of Toronto where he worked in low temperature physics and took part in geophysical expeditions in Northern Ontario, Northern Quebec and Labrador. Here he also had the opportunity to study the piano under Alberto Guerrero. Alan then took up post as a Scientific Officer in the Royal Naval Scientific Service and was the leader of two research cruises on the Royal Research Ship Discovery II.

Alan's period at Imperial College began in 1956 when he enrolled as a PhD student in the Department of Metallurgy working on the neutron irradiation embrittlement of metals. Obtaining his PhD in 1960, he became a lecturer whilst continuing to conduct and supervise research on various aspects of lattice defects in metals.

Alan left for the United States late in 1962 for positions at the Mellon Institute and later at Brooklyn Polytechnic and Washington State University. He was also a science advisor to the Mayor of New York City.

Alan moved to the University of Louisville in 1975, where he remained for 26 years. His research during his academic career spanned both purely academic work on metals and alloys and applied work in areas such as surgery, dentistry, oceanography, failure analysis etc. He has published more than 120 papers in professional journals and conference proceedings.

association _ alumni focus

Following his departure from academia, he is now focusing on a wide range interests, including his continuing work for the homeless for which he was made a Distinguished Citizen of Louisville in 1996. He is also expanding his consulting company, Metals Research Inc, founded in 1987. Perhaps more importantly he is continuing his work as Director of Music at a church in Louisville where he has for many years written choral music for the choir which he directs.

Professor John O'M Bockris (Chemistry 1943, PhD 1945, DSc 1952)

Professor John Bockris retired from the Department of Chemistry at Texas A&M University in 1997 and entered shortly thereafter a new field: anomalistics. The precursor to this activity was his work 1989-94 in the birth of a new field, commonly called 'cold fusion' and more accurately 'chemically-assisted nuclear reactions'.

The modern phase in this field had been founded in 1989 by Martin Fleischmann FRS, who had previously worked as a graduate student in a neighbouring group to Professor Bockris at Imperial College from 1945 to 1953. When Fleischmann and Pons announced that they had been able to produce an anomalous heat, it was suggested that it was of nuclear origin by certain electrochemical processes in aqueous solutions at room temperature, Bockris, then directing the research of a large group of electrochemists, set several of his team to attempt to find products of the nuclear reactions hypothesised and thus prove the nuclear origin of the anomalous heat.

The latter group had used deuterium oxide and lithium hydroxide meaning that the most likely product, if a nuclear reaction were to occur at the palladium cathode, would be tritium, which is radioactive and therefore easily detected and measured. Working with a former student of Imperial, Nigel Packham (Electrical Engineering 1994), and several other graduate students and post doctoral fellows, the Bockris group was the first to publish a report on the finding of substantial quantities of tritium in 1989.

These findings were not 'by the book', producing a vigorous (sometimes violent) reaction among physicists and chemists who claimed the new results were due to error. In fact a worldwide burst of confirming contributors went on to show that nuclear reactions occurred not only in the original system involving palladium electrodes but much more widely.

To Professor Bockris, the unwillingness of colleagues to accept evidence of new phenomena (by 2002 there were a total of 3,000 publications) threw light upon other anomalies which had long been refuted by scientists (eg. telepathy, precognition).

This led him to write a remarkable book entitled the *New Paradigm* (Minuteman Press, 2003). In essence, the book considers the consequences of verifying the occurrence of many anomalous phenomena, and suggests the situation requires a new paradigm in science.

Dr Harold Gough (Zoology PhD 1938) and his wife Margaret celebrated 60 years of marriage in September 2003. The couple still live in Epsom, where they spent their diamond wedding anniversary amongst friends and family.

Dr Clive Hallett (Materials 1977, PhD 1981) has been elected President of the Institute of Materials, Minerals and Mining's London and Southern Counties Minerals Industries Institute (IMMM MinSouth) for 2003/04. The Institute aims to provide a focal point for professionals employed in the mining and related industries in the south eastern area of England, by enabling its members to meet at regular intervals to exchange news and ideas. It does this through its monthly programme of events which highlight the issues surrounding today's minerals industry. Non-members are welcome at most of the Institute's events. For more information please visit www.minsouth.org.uk.

Lost alumni – can you help?

William John Warren (Metallurgy 1959)

Dr Colin Burnell Mynott (Materials 1959) is trying to trace alumnus, W John Warren (Metallurgy 1959) who is currently not in touch with the Office of Alumni and Development. W John Warren is a US citizen and was, Dr Mynott believes, on the teaching faculty at Berkeley, California. He had last had contact with him in Stamford approximately 30 years ago.

Philip Leighton Parsons (Physics 1945)

Dr Philippe (aka Douglas) St Pierre (Materials 1946), who has lived in the USA for most of his life, and worked for General Electric as Engineer and Executive Manager, is trying to trace alumnus, Philip Leighton Parsons (Physics 1945). After graduating in 1945, Philip had stayed at Imperial for a further year of postgraduate work and may have gone on to become a hospital physicist.

Stan Cousins (Physics 1941) and H K (Ken) Moneyppenny (Physics 1941)

David Nutting (Physics and Maths 1941) is hoping to regain contact with two fellow graduates, in connection with the book he has recently completed on wartime activities of the Royal Navy. The alumni in question are Stan Cousins (Physics 1941), who went on to join the Navy's radar establishment at Haslemere before they lost touch, and H K (Ken) Moneyppenny (Physics, 1941), with whom Mr Nutting had contact for many years until his retirement from GKN some years ago. He had formerly lived in the Wolverhampton area.

If you have any news about these alumni, please contact the alumni office at alumni@imperial.ac.uk.

Professor Bernard Neal (Head, Department of Civil Engineering 1976-1982), 81, has won the All-England Croquet Club title 37 times, every year since 1963 with the exception of 1964, 1974 and 2001. Despite a minor heart operation earlier in 2003, he relished taking part in the 2003 Championships in defence of his 2002 tile. Professor Neal lives in Cheltenham where he moved in 1982 after retiring from Imperial College London.

Between 1982 and 1996, Professor Neal was a committee member of the All-England Club, which meant that he was heavily involved in the organisation of the Wimbledon tennis championships and was in charge of the courts, grounds and buildings. He is now a Vice-President.

Adam Afriyie (Agricultural Economics 1987) was selected to fight the safe seat of Windsor for the Conservative Party on 3 October 2003, and should, barring a major catastrophe, become a Conservative MP at the next election. After A-levels and a gap year on a kibbutz, Adam studied agricultural economics at Wye.

Howard R Stockford (Mining Geology 1962) has been elected President of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), from May 2003 to May 2004. The CIM's annual Mining Conference and Trade Show will be held from 9-12 May 2004 in Edmonton, Alberta and will be a world class event, highlighting the huge, new, \$36 billion dollar mining developments in the oil sands of Alberta (the world's second largest oil resource outside Saudi Arabia) and the new high quality diamond operations in Canada's north.

Did you play in Imperial College Sinfonietta?

As Imperial College Sinfonietta embark upon their eighth year as a successful orchestra and student society, a new alumni network for former members has been established.

Four Sinfonietta alumni – **Akira Kirton (Chem Eng 2002)**, **Dan Capps (Physics 1999)**, **Amy Elliott (Chem Eng 2002)** and **Helen Arney (Physics 2002)** – are setting up a network of current and ex-members of the orchestra and would love to hear from old members. If you used to play in rehearsals or concerts, please email your contact details to ics_alumni@hotmail.com



All alumni members will be invited to enjoy regular music and social gatherings in London, including reduced price concert tickets and new opportunities to play, via the monthly alumni e-bulletin. Other plans include a careers-focused event that links current members with alumni in different sectors of work and, for some alumni, a chance to join the Baltic States tour.

Sinfonietta was set up in 1996 with **Daniel Capps**, then studying the joint Music and Physics course at Imperial and the Royal College of Music, as conductor. Seven years on, the orchestra continues to give many Imperial students an opportunity to play music for pleasure and experience new repertoire.

As well as two concerts a year on campus, the Sinfonietta committee organises an annual European tour. With successful concerts in Paris, Stockholm and Barcelona, the 80-strong orchestra has an even more ambitious destination for 2004 with concerts planned in Helsinki, Tallin (Estonia) and the historic city of St Petersburg during March and April. www.union.imperial.ac.uk/arts/sinfonietta/alumni.htm

Musicals are good for you

Although each year scores of amateur writers and composers create new musicals, not all are staged and, of those that are, most are never heard of again. One show that seems to be bucking this trend is *Below Stairs*, a musical written by Trevor Pilling with music by **Alan Lewis (Materials 1958)**. For both men, convalescence following surgery provided the opportunity to complete work begun years earlier. “In the wake of my two heart attacks and colon cancer, working on the show kept me sane,” says Alan, a freelance writer and editor.

With words and music finished – and with actor/writer Simon Williams (of *Upstairs, Downstairs* fame) describing the script and score as ‘fabulous’ – Trevor and Alan assembled a cast and crew. Rehearsals began in January 2002 and the show was put on at the New Elgiva Theatre in Chesham in May 2002. The four performances achieved an average of 86 per cent attendance and the press were lavish in their praise, with one reviewer opining that the musical should ‘go national’.

Equally convinced that what they had deserved to go much further,

accountant Trevor and Alan set to work to introduce the show to others. Success came early and from a surprising quarter, namely the Jávea Players, a well established ex-pat drama society on



Spain's Costa Blanca. Having seen the video, Kay Birch, an experienced director, fell under its spell and had soon persuaded the committee that they should produce it.

The show was staged in the small town of Gata de Gorgos from 31 March to 5 April 2003 and again reactions, including those of the local press, mirrored those of last May. The six performances were virtual sell-outs, and the average nightly attendance was higher than the group had achieved for *The Sound of Music*.

By the time this article goes to press, the 100-year-old Utopia Operatic Society, based in Catford, south London will have become the latest troupe to have staged the production. Similarly, the Glossop Operatic and Dramatic Society has announced plans to stage it in 2005. There are also interested societies in Scotland, East Anglia and the Home Counties.

The lure of the established repertoire – most of which dates back at least 50 years – is the virtual guarantee of getting enough bums on seats. So taking a chance with a show such as *Below Stairs* can be a leap in the dark. However, for those prepared to be a little more adventurous, the email address is belowstairsshow@aol.com.

Since Spanish success in April, composer Alan has undergone major surgery but his prognosis is now looking good and again his convalescence is being helped by his involvement in the show. With Trevor Pilling, he is now trying to raise backing for a local production where all ticket sales would go to charity. The pair will also be donating half of all royalties to cancer charities in the future.



Alan Lewis, retired bandleader Edmundo Ros and Trevor Pilling enjoy success in Spain

Future builders

Stuart Sexton (Chemistry 1955) is currently engaged in creating a new university in the West Nile region of North Western Uganda, which will be known as ‘Nile University’.

He is assisted in this exciting project by his son **Edward (Biology 1998)** and former editor of *Felix*, another son, James, and former Imperial man, **Professor Sir Graham Hills**, who was a lecturer at the College when Stuart was a student. Sir Graham retired recently as Vice Chancellor of Strathclyde University.

Of the project, Stuart says: “The local people have spoken for some years of the need for a new university – it is over 400 miles the nearest university, Makerer University in Kampala.

“Nile University will be a very ‘practical’ university, pursuing subjects of a scientific and engineering nature. The courses will be aimed at the flow of local graduates and will teach students to be enterprising and entrepreneurial – perhaps eventually a small scale Imperial in the heart of Africa.”

Stuart’s main job now is to find necessary funding and academic support. For the former, he has formed the East Africa Education Foundation, a not-for-profit company and registered charity, to do this, and for the latter, Stuart is working to form links with British universities. Amongst the first of his tasks will be to find English-speaking lecturers willing to serve short periods at Nile.

The Ugandans are most insistent that the first Vice Chancellor of Nile University should be a British professor and Stuart is open to offers. The funding will no doubt come mainly from major corporations and charities, but the net is wide.

Of the challenge that he faces in the months ahead, Stuart says: “After a career in Shell International, and then as Special Advisor to the Secretary of State for Education, this is quite a challenge, even for an Imperial man.”

Contact Stuart at sexton@warlinghamparkschool.com for further information about the Nile University.

news from around the world

Imperial College Alumni Association Malaysia Grand Gala Dinner Report

In summer 2003, a Grand Gala Dinner was organised by the Imperial College Alumni Association Malaysia as the inaugural event of a special lecture series. Prime Minister of Malaysia, Yang Amat Berhormat Dato Seri Dr Mahathir bin Mohamad and his wife were guests of honour at the dinner on 4 July, for which there was a record attendance of over 400. This glittering event was held at the Palace of the Golden Horses' Grand Royal Ballroom in the Mines Resort City just outside Kuala Lumpur.

Dr Foo Ban Nyen, President of the Association and Chairman of the event, organised the dinner with the support of six committee members. The event brought in the highest amount of corporate sponsorship that the Association has ever recorded, with support from the Sepang Institute of Technology, Excel, Ranhill, Glomac and Dato' K K Lim (Mining Engineering 1961). Other generous donors included Telekom Malaysia, Ireka, Harvard Club of Malaysia, Foo Wan Thot, Country Heights, Bumiputra Commerce Bank, Minco, Lim Yen Han (Civil Engineering 1987, Management MSc 1988) and YTL.

In his welcome speech, Dr Foo highlighted the role of the Association and, with the recent approval of life membership, forecasted a large increase in membership numbers. He spoke of the plan to hold an annual Distinguished Speaker Lecture Series, inviting world-renowned scientists and engineers to participate.

Dr Foo's welcome speech was followed by a brief address by His Excellency The British High Commissioner, Bruce Cleghorn. A video presentation from the College followed, with messages from the Rector, Sir Richard Sykes, and Pro Rector, Dr Tidu Maini, who expressed disappointment that they could not attend the event and thanked the attendees for their support of the evening and the College.

During dinner, guests were entertained by an accomplished pianist, Puan Sri Chelsea Cheng, and famous Malaysian songstress, Madam Yusni Hamid. Madam Hamid, a favourite of the Prime Minister, performed several English refrains, along with songs in Chinese, Malay and Hindi.



Left: **Dr Foo** presents the Prime Minister with an Imperial College London scarf
Above: **Dr Mahathir bin Mohamad** (far right) pictured with President of the Malaysian Association **Dr Foo Ban Nyen** and Treasurer **Tan Joon Gei**

After the dinner, the Prime Minister was invited to deliver his Inaugural Speech. He talked about the newly proposed Biovalley Project, and the success of the Multimedia Super Corridor, which he launched at Imperial College in 1997. He spoke of the need to encourage Malaysian students to study life sciences and for those who studied overseas to return home to do research with their local counterparts.

Dr Foo presented a gift from the Association to the Prime Minister which included an Imperial College scarf and other memorabilia. Following the speeches and presentations, the guests continued to enjoy themselves until the Grand Gala Dinner officially ended at 23.30.

The dinner was well publicised in local daily newspapers, with pictures and pieces in the Utusan Malaysia, Berita Harian, Star, the New Straits Times, Sin Chew Jit Poh and Nanyang Siang Pau. A private local television channel, TV3, which covered the event gave glowing reviews on its lunchtime news bulletin the following day.

DR FOO BAN NYEN (GEOLOGY PHD 1977)
PRESIDENT

DR ZAINAL ABIDIN MIOR AHMAD (BIOLOGY PHD 1991)
HON SECRETARY

Exiles celebrate 29th reunion

The 29th reunion of Imperial College Exiles North America East was held from 2-5 October 2003, once again at Great Camp Sagamore in the Adirondack mountains of New York State. There were 32 attendees, travelling from as far a field as California, Nevada and Connecticut, and we were pleased to have four new alumni join our group this year. Despite changeable weather, participants enjoyed the local golf course, a dinner cruise on Raquette Lake and hiking around the lake on the Sagamore estate.



Below: **Great Camp Sagamore**
Left: **The WW Durant on Raquette Lake**

The new 'stuckees' for 2004 are Mike McCann and Sandy Eames and the organisation for the 30th reunion rests in their capable hands. The reunion will take place at Sagamore from 24-27 September 2004, starting on the Friday evening with a dinner cruise on the WW Durant. Then the weekend will continue with events and activities throughout Saturday and Sunday, finishing on Monday 27 September. For more details, please visit the Exiles' website at www.mccannscience.com/icenae.htm or contact Mike (mjmccann@iee.org) or Sandy (sandyeames@aol.com).

Imperial College Alumni Association of Singapore 25th Anniversary Gala Dinner

The Imperial College Alumni Association of Singapore (ICAAS) celebrated its 25th Anniversary with a grand gala dinner at the Regent Hotel on 19 August with guest of honour Rear Admiral Teo Chee Hean (Computing 1977), currently Minister for Defence and Patron of the Association. Other alumni present included the Chairman of Singapore Exchange and Advisor to the Association, J Y Pillay (Mechanical Engineering 1956), and Chairman of World Scientific Publishing Company Professor K K Phua (Physics DIC 1967), the founding president of the Association.

Over 100 members and friends of the Association attended the gala dinner. Notably, there were some members who returned from Vietnam – Dr Koh Teng Nam (Physics 1969, PhD 1977) and Canada – Huang Shang Bai (Mechanical Engineering 1972). And there were also representatives from the Imperial College alumni associations of Hong Kong – Mr Leslie Pakianathan (Civil Engineering 1986) and Malaysia – Dr Foo Ban Nyen (Geology PhD 1977). Alumni from the 1960s through to the 2000s were present, including a handful of current undergraduates. For me, there was the great pleasure of seeing many of my classmates from the late 80s, a few of whom I had not met for more than 10 years.

At the start of the gala dinner was a slide show featuring a selection of photographs from the 25 years of the Association prepared by Mark Wong (Civil Engineering 1988). It was greatly enjoyed especially by the 'senior' generations of the Association, bringing back many fond memories from the founding days. After the slide show, a special congratulatory video message from Pro Rector Dr Tidu Maini was shown. During dinner itself, the past and present executive committee members led a celebratory 'yum-seng' – a traditional toast that requires a loud exercise of the vocal cords!

In conjunction with our 25th anniversary celebrations, the Association established the Imperial College Alumni Association of Singapore Distinguished Service Award to be given annually to an individual who has made sustained and outstanding service to the



Above: Members of the committee past and present take part in the traditional 'yum-seng' toast

Right: Rear Admiral Teo Chee Hean presents the inaugural Distinguished Service Award to Professor K K Phua, founding president, as current president Dr Limsoon Wong looks on



Association. The inaugural award was presented to Professor K K Phua, our founding president.

Right after the award presentation ceremony, the 25th Anniversary Commemorative Magazine was distributed. Edited by Dr Lee Hing Yan (Computing 1981, MBA 1982), it includes messages, photos, and vignettes capturing the founding and growth of the Association.

Two of the photographs featured in the magazine were of Sir Eric Ash, taken with Minister Lee Yock Suan (Chemical Engineering 1969) and Dr Lee Chiaw Meng (Civil Engineering PhD 1965), who were, respectively, the Minister for Education and retired Minister for Education at the time that the photographs were taken. Together with Minister Teo Chee Hean (who was Minister for Education until he was appointed Minister for Defence in July), we have had three Ministers for Education amongst our alumni in Singapore!

DR LIMSOON WONG (COMPUTING 1988)
PRESIDENT

>>NEWS IN BRIEF >> NEWS IN BRIEF >>

Singapore makes 5th science student award _Mr Tan Haihan of Hwa Chong Junior College has been chosen as the winner of this year's Imperial College Alumni Association of Singapore Most Outstanding Junior College Science Student Award.

The award is made annually by the Association and the World Scientific Publishing Company to a junior college science student with outstanding academic ability and achievement in science.

According to selection panel member, Professor Lee Seng Luan: "All the candidates interviewed were

excellent, but Haihan stood out over the rest because of his passion for science."

"Imperial College is UK's top science, technology, and medical university," said Dr. K. K. Phua, chairman of World Scientific and founding ex-president of ICAAS, "the alumni association and World Scientific are therefore very pleased to present this annual award to encourage the pursuit of scientific knowledge and exchange in our junior college students."

Regular gatherings _Imperial College Exiles North America East hold an informal pub lunch on the last Friday of every month in Toronto. This takes place at the Jason George Pub, 100 Front St. East (east of the St. Lawrence Market), starting at noon. For further information contact Harry Burgess, +416 362 5135. All alumni and friends are welcome.

British Columbia Alumni Association_meet for lunch on every third Friday of the month in the Bull and Bear Bar in downtown Vancouver (Days Inn, 921 West Pender

Street). The group meet in the south-east corner of the bar and all alumni from any part of the Imperial College are welcome. Contact John D Austin at tedb@istar.ca for further information.

Calling all international groups_It is now easier than ever to let Imperial alumni around the world know about alumni activities in your part of the world.

Visit the alumni website www.imperial.ac.uk/alumni, where it is now possible for you to submit details of your events and news on-line.

obituaries

EUR ING GEORGE ADLER OBE FREng FIMechE (DIC Civil Engineering 1948 and former member of the Governing Body)

George Adler's career began in 1945 with the English Electric Company, where he eventually became manager of the company's water turbine valve and hydraulic products division.

Later he served as Chief Mechanical Engineer with Marconi, before joining the British Hydromechanics Research Association as Director of Research, where he remained until 1986.

George returned to Imperial to serve on the Governing Body 1985-1997. Concerned with the status of the engineering profession, he was a member of the UK Engineering Council, Chairman of the British National Committee for International Engineering Affairs, Vice President of the European Federation of National Engineering Associations and President of the Institute of Mechanical Engineers.

In 1984, he was made a Freeman of the City of London and a Liveryman of the Worshipful Company of Engineers. Fellowships included the University of Wales, the Royal Academy of Engineers and the Institute of Directors.

MR ROBERT E M (MIKE) BALL (Mechanical Engineering 1959)

Mike died peacefully at home on 27 May after a long illness, borne with great courage. He studied at Imperial from 1954 to 1959 and was awarded the Andrew Carnegie medal for research.

I worked as a secretary in the department office, met Mike in 1959 and we married in London in 1961.

Following a graduate apprenticeship at W&T Avery, Mike and a colleague founded Dontec Testing Machines in 1969, enjoying greatly the challenges and success of owning one's own business.

He was a brave man, extremely competent but unassuming and so well respected. I have been overwhelmed by the number of letters and tributes received and I am grateful for the 42 years we shared.

Provided by Philippa Ball

MR JOHN MICHAEL CLARKE (Chemical Engineering 1961)

John Clarke lost his battle with cancer on 20 July. He is survived by his wife Jane and their children Ami, Lucie and James.

After graduation, John worked with Distillers Company, and then with BP Chemicals in London, China and Indonesia, retiring as Business Development Manager in 1992.

A keen musician, John played clarinet with Middlesex Yeoman Band and Fitznells Wind Band, for whom he also arranged music and acted as librarian.

In 1995, he became councillor for Epsom and Ewell Borough Council, a position he held until earlier this year. He became Chairman of his local Residents' Association in 1999.

He is remembered by friends and colleagues as a kind and conscientious person and is sadly missed by all those who knew him.

Provided by a friend of the Clarke family

(JOHN) MICHAEL COOLING Esq OBE JP FREng (Mechanical Engineering 1940)

Following graduation from Imperial, Michael Cooling joined the Royal Navy, serving as Lieutenant until 1946. He then joined J Jeffreys & Co as a design engineer and then McCann Limited in Dublin, where he eventually served as Chairman. Following a spell at Kilpatrick as Chief Engineer and Commercial Engineer, he was most recently Chairman

and MD of Heduco Limited.

His many professional honours have included the Gold Medal of the CIBSE (1987), serving as President of the Heating & Ventilating Contractors Association and the honorary Fellowship of the American Society of Heating, Refrigeration and Air Conditioning Engineers in 1984. Michael was also appointed to the Governing Body of the City and Guilds of London Institute in March 1970, where he served for a period of seven years.

His interests included golf and, while with Imperial College, he represented the Boat Club at Henley Royal Regatta in 1937 and 1938. In 2000, at the age of 80, Michael joined similarly aged ICBC rowers to row a commemorative lap around the barges at Putney!

EMERITUS PROFESSOR MICHAEL COWARD (Geology 1966, PhD 1969)

Michael Coward graduated from Imperial College with first class honours in 1966.

On completion of his PhD in 1969, Michael took part in expeditions to study the volcanoes of the Andes and mineral exploration in Australia at the height of the mining boom. When he returned he became a well-respected and much-liked member of faculty at Leeds University until 1985.

Michael left Leeds to take the HH Read Chair of Geology at Imperial. For several years, notwithstanding a heart bypass operation in 1985, the same old energy and productivity created a very active research and teaching environment. China, the Alps, Latin America and the North Sea were added to Michael's portfolio and his incredible appetite for work resulted in 366 published papers during his career.

Eventually Michael retired from Imperial in 1997 to devote himself to his industrial consulting company, formed in partnership with Alison Ries, a fellow geologist whom he had married in 1989.

PROFESSOR HARVEY FLOWER FIM FRAeS (PhD Materials 1970 and Professor of Materials Science, Department of Materials)

Professor Harvey Flower, Professor of Materials Science died in an accident while on holiday on 14 August 2003.

Harvey read natural sciences at Christ's College, Cambridge and graduated with first-class honours. Attracted by the new 'million-volt electron microscope', he moved to Imperial and completed his doctorate there in 1970. He was appointed immediately to the academic staff and was latterly also Deputy Head of Department, Director of Research and Director of Postgraduate studies in the department.

Harvey was a world expert in materials for the aerospace industry, and in particular in the metallurgy of titanium, aluminium and their alloys. He was the author of numerous research papers and several books, including a text on the metallurgy of titanium and high performance materials for aerospace applications.

Professor John Kilner, Head of the Department of Materials, paid tribute to Professor Flower: "Everyone who knew Harvey is saddened by this news. He was a key member of the Department, a popular teacher and an active and well respected research scientist. He will be greatly missed by his colleagues and students at Imperial, and also by the wider scientific community."

DR FREDERICK WILLIAM GIFFORD (PhD Civil Engineering 1949)

'Giff' was an acknowledged expert in the field of pre-stressed concrete – he was responsible for the design of the first clear span multi-storey car park in the UK.

I shared a wide range of interests with my husband – natural history, fell walking, bird watching, ballroom and Latin American dancing. Our garden at 'Blencathra' was opened to the public under the National Gardens Scheme in 1988 and, as a result, many thousands of pounds have been raised for Cancer Relief.

Provided by Betty Gifford

MR GARY HUTCHINSON (Geology 1995)

Gary Hutchinson was killed in a tragic motorcycle accident in Fulham on 9 May 2002.

As a student at Imperial, Gary was easy to spot on field trips, paying great attention to the clothes he wore and complaining when he got mud on his lovely Gore-Tex boots! He was always immense fun to be around, making even Kinlochleven bearable! Many of his classmates will no doubt remember his loud and infectious laugh, which was only matched by his love for life and his kindness towards his friends.

Gary went on to become a very successful businessman, ultimately becoming Operations Director for the PoNaNa chain of clubs. He played a critical role in steering the company through its public flotation and rapid national expansion. His job often came in very handy at RSM get-togethers, with many a night being prolonged courtesy of one of Gary's bars.

He will be sadly missed by all of those who were lucky enough to study with him.

Provided by Chris Pierce (Geology 1994)

MR DAVID MEAKIN (Physics 1976)

David Meakin passed away on 1 August 2003 whilst on holiday in France with his family.

David had made a remarkable recovery from an earlier stroke and had recently taken a number of exams in computing to enable him to teach other users. He also spent time rebuilding numerous computers and caring for his children.

He will be missed by all of his friends as well as his family.

Provided by Janice Meakin

MR JERZY HENRYK (GEORGE) OKUNIEWSKI (Mining Geology 1981)

Born 15 June 1960, George Okuniewski died on 11 August 2003.

George was a student in the Royal School of Mines between 1978 and 1981. Following his graduation, he was employed by HJ Banks as a Project Manager and was a member of the Institute of Quarrying.

Much loved as a husband, father, son and brother, he is survived by his wife and two daughters.

Provided by Bozena Chawkwala (sister of George)

DR BHABENDRA NATH SAIKIA (PhD Physics 1961)

On completion of his PhD at Imperial, Dr Saikia returned to Assam and took up a post as Professor of Physics at Guwahati University until 1968. He then decided to leave the world of academia to carve himself a career as a novelist, playwright, journalist and film-maker.

With a deep interest in everyday life and people, his work broke the barriers of social injustice and irrational myth, and touched the hearts of the general public. His film *Kalsandhya* which conveyed a strong message against violence, was highly acclaimed at the 1999 Cairo Film Festival.

Dr Saikia was also the editor of magazines *Prantic* (1981-1999) and *Safura* (1982-1986). He will be remembered as a doyen of Assamese literature and film. He is survived by his wife Preeti and two daughters.

Provided by Dr B Bharali (Biology 1999)

EMERITUS PROFESSOR DOUGLAS SHEARMAN (Geology 1953 and Senior Research Fellow, Department of Geology)

Few geologists have made such an important contribution to science as Douglas Shearman, who discovered that the presumed genesis of the 'evaporites' (group of minerals that includes salt) was erroneous. This discovery was immensely important to the petroleum and chemical industries.

During the Second World War Professor Shearman served as a radio operator on a Navy minesweeper. He then studied geology at Chelsea Polytechnic and moved to Imperial College, where he spent the rest of his professional life.

In the early 1960s Shearman led a series of expeditions to the Trucial Coast (United Arab Emirates) where he carried out a series of surveys across the salt marsh. Following further work on ancient 'evaporites' in England and Canada, he concluded that they were formed by the replacement of earlier rocks, not by evaporation of the oceans, and should really be termed 'replacementites'. This was revolutionary.

Shearman was awarded a DSc and a Chair by the University of London in 1978. He was a visiting professor at universities around the world, receiving medals and honours from the American Association of Petroleum Geologists, the Geological Society of Canada and the Geological Society of London who elected him an honorary fellow and awarded him the Wollaston Medal, its highest honour, in 1997.

Though he retired formally in 1983 he continued at Imperial College as a senior research fellow. His research latterly involved field trips to the Rocky Mountains and west Greenland. He is survived by his wife, Maureen, and their three children.

FATHER WILFRID SOLLOM OSB (Electrical Engineering 1946, PhD 1954)

Between his undergraduate studies in 1946 and his return to Imperial in 1951, Father Sollom carried out his national service and worked as an engineer for Radio Ceylon. On completion of his PhD, he was clothed as a novice at Douai Abbey in Berkshire, and ordained in 1961.

Father Sollom continued to make use of his engineering skills at the Abbey, designing and supervising the building of a large barn during his early years there, and installing the first internal telephone system.

He also taught chemistry and physics at the monastery school, becoming headmaster in 1975, a post he held until his retirement in 1987.

For many years Father Sollom served as a member of the Abbot's Council and was the director of the building appeal for the monastery in the 1960s. He will be greatly missed by the community at Douai.

PROFESSOR BRIAN STEELE (PhD Materials 1965 and Professor of Materials Science, Department of Materials)

Professor Steele spent five years in the ceramics industry before joining Imperial College as Nuffield Research Investigator in 1958. He became a member of staff in the department and remained there for the remainder of his working life. He was made Professor of Materials Science in 1981, and Senior Research Fellow in 1994.

During this period he established the Wolfson Unit for Solid State Ionics and the Centre for Technical Ceramics.

Professor Steele published more than 220 papers on electrochemical energy conversion and storage devices. He received many awards including the Schoenbein Medal and the MBE for services to Materials Science in 1996.

He acted as consultant to many European companies/institutions involved in the development of IT-SOFC (Intermediate Temperature-Solid Oxide Fuel Cell) systems. In 2001 he became one of the founders of Ceres Power Ltd, formed to exploit innovative IT-SOFC technology developed at Imperial College, and had most recently been their Technical Director.

association_obituaries

DR KENNETH STEWART (Chemistry 1934, PhD 1936)

Following graduation in 1934, Kenneth Stewart was awarded a PhD in chemical research in 1936. Whilst at the RCS, he was also a keen athlete, and served as President of the Athletics Club.

In 1936 Kenneth took up a post as junior lecturer at the RCS, researching, amongst other things, chemical warfare agents. In 1939, Kenneth volunteered for military service and was subsequently commissioned to the Royal Engineers. He was posted to Burma, but only made it as far as Southern Army HQ in Bagalore, India where he met and married the love of his life, Olga Walker.

In 1946, Kenneth was posted to the USA to serve as War Liaison Officer with the US Army Chemical Corps. Later he entered the nuclear weapons field, working at the Atomic Weapons Establishment at Aldermaston. Another period in the USA followed, this time as MoD Liaison Officer in atomic warfare in Washington DC.

In 1956 Kenneth returned to the UK as the leading British authority on the potential hazards of nuclear weapon accidents, becoming Superintendent responsible for advice on all operation safety matters in 1971.

Beloved husband of the late Olga, devoted father to Dawn, Gillian and Jennifer, and a loving grandfather, although his career often took him away from home, his family, for whom he remained constant in his love and support, was his continual joy. We shall miss him.

Provided by Jennifer Wrzesinski (daughter)

MR ERIC CHARLES VAST (Physics 1927, DIC 1928)

Eric Vast spent most of his working life in TV broadcasting. He was Head of Engineering at Rediffusion, LWT and, finally, at Thames Television. He was also involved in helping to set up radio and television transmission in Russia.

In addition to his working life, with the help of his family, he ran a 10-acre market garden just outside Hastings, East Sussex, later retiring to a bungalow on the outskirts of the town.

Provided by Shirley Vast (daughter-in-law)

DR PETER SCOTT WELLINGTON CBE (Botany 1946)

Peter Scott Wellington, began his studies at Imperial College in 1937, graduating in 1946 after wartime service with the Fleet Air Arm.

In 1948, he joined the official seed testing station for England and Wales, located at the National Institute of Agricultural Botany in Cambridge. Four years later, he completed his PhD on the germination of wheat varieties and was appointed chief officer of the station. Subsequently appointed deputy director, Peter played a key role in developing the institute's new constitution when it became part of the Ministry of Agriculture, Fisheries and Food in 1968.

Peter also steered the Institute through the expansion that came with British EEC membership. He promoted innovation in test methods, increased use of computerisation and laid firm foundations from which the UK was able to face funding difficulties that followed over-production in the 1980s.

By the time Peter retired in 1981, the Institute had helped to dramatically increase national yields, improved crop quality and led to national self-sufficiency in major crops. He was awarded the CBE, which he welcomed as recognition for the institute.

PROFESSOR SIR ROBERT ('REO') WILLIAMS (Former Professor of Bacteriology and Dean of St Mary's Hospital Medical School)

Robert Williams was a distinguished figure in public health and a pioneer in early work on hospital infection.

After clinical studies at University College Hospital, where he also gained a BSc in physiology, and a post as house physician, he returned to laboratory work as a pathologist in the Emergency Medical Service.

From 1942 till 1946 he was in charge of the Medical Research Council's Wound Infection Unit in Birmingham. Here he laid the foundations for his important work on the sources and prevention of wound infections and hospital cross-infection. He continued to develop

these themes at the Central Public Health Laboratory in Colindale and it was here that he developed the system of typing staphylococci.

In 1960 he became Professor of Bacteriology at St Mary's Hospital Medical School and Director of the Wright-Fleming Institute, rapidly developing the bacteriology department.

From 1967 to 1973, Sir Robert was the Dean of St Mary's Medical School. He also served on the Medical Research Council and examining board for the Royal College of Pathologists. He helped to improve the student-selection base and included students on the academic board.

DR JEREMY WYNDHAM (Physics 1978, PhD 1981)

International bridge player, highly respected businessman, author of two books, loving husband to Sarah and father to Charley and Sophie - in his short life, Jeremy achieved a lot. People often get cynical in the middle years of life but Jeremy was always immensely positive and forward-looking.

His sense of humour should not go unmentioned. Even under pressure, he would love to tell a joke. There were some occasions where he would crack over something funny, and his laughter would be so intense that he would have to stop what he was doing for a few moments.

He made a positive difference to many lives. We will remember him not only for the laughter but for the genuine friendship over the past twenty five years. He is sorely missed.

A memorial fund has been established at the Junior School of Northwood College, attended by Jeremy's two daughters. Please contact Brigid Baker on +44 (0)7788 420 484 for further details. *Provided by Malcolm Field (Physics 1978) and Faiyaz Yunus (Civil Engineering 1978)*

Also sadly deceased

DR C A AINSWORTH Charing Cross Medical School 1985
MR KAIKHUSHRU R BHARUCHA Electrical Engineering 1940
DR LEWIS BERNARD CANNELL St Mary's Hospital Medical School 1958
MAJOR ROSS CORNFORD Mechanical Engineering 1948
DR DAVID DUNCAN CRAIG St Mary's Hospital Medical School 1958
MR BRIAN GORDON DRAPER Mathematics 1981
MR FREDERICK ELLIOTT Mechanical Engineering 1950
MR ANTHONY JOHN EYCOTT Materials 1956, PhD 1959
MR MARTIN VINCENT FORBES Physics 1970
MR ANDREW DAVID GIBSON Mathematics 1972
MR JOSEPH KEITH GLOVER MSc Geology 1973
MR MARK JULIAN HOLE MSc Advanced Petroleum Engineering 2000
MR JOHN RAYMOND JAMES Physics 1975
MR ANDREW WILLIAM JOBLING Civil Engineering 1977, PhD 1981
MR FRANK GEOFFREY KEIGHTLEY DIC Oil Technology 1946
DR DEREK H LAPWOOD Botany 1951, PhD 1953
MR IAN LEE-PRUDHOE Mechanical Engineering 1994, PhD 1998
MR EVAN MELFYN LEWIS Civil Engineering 1939
MR ION MCMORRIS DIC Chemical Engineering 1961
MR PHILIP H O PEARSON Aeronautics 1962
DR ANTHONY CHARLES PHILLIPS Physics 1962
PROFESSOR ROBERT C PITKETHLY Chemistry 1935, PhD 1937
MR ANDREW GERALD POLLEN FRCS St Mary's Hospital Medical School 1946
MR PETER RALPH PRICE Mechanical Engineering 1939
CAPTAIN RONALD CHARLES RAY Chemistry 1949
MR JAMES ROBERT ROGERS Physics 1947, DIC 1948
MR EDGAR T ROLLINSON Chemistry 1933
DR C A RUSHMER St Mary's Hospital Medical School 1954
MR ROBERT GEOFFREY SEAMAN MSc Physics 1954
DR MARK NOEL STRACHAN Chemistry 1941, PhD 1944
DR PETER HUMPHREY TRIBE St Mary's Hospital Medical School 1945
MR ANTHONY R T WHITMARSH Wye College 1956
MR FRANCIS EDWARD WILLIAMS Electrical Engineering 1931, MSc 1932
DR PAUL ANTHONY YOUNG Physics 1953, MSc 1954

honours

Birthday Honours 2003

DR BRIAN G BENDER CB KCB (Physics 1970, PhD 1973)
Permanent Secretary, DEFRA

KCB for services to the Department for Environment, Food and Rural Affairs.

PROFESSOR COLIN HUMPHREY OBE (Clinical Medicine Research 2001, National Heart and Lung Institute)
Medical Director, British Olympic Association

OBE for services to sport.

SANDRA P HUNT CBE (MSc Civil Engineering 1975)
Deputy Chief Executive, Newham Council

CBE for services to urban regeneration in London.

PROFESSOR KAY-TEE KHAW-FAWCETT CBE (St Mary's 1976)
Professor of Clinical Gerontology, University of Cambridge

CBE for services to medicine, in the field of clinical gerontology.

MR SIMON D PELLEW OBE (MSc Environmental Technology 1981, MBA 2002)
Managing Director, PECAN

OBE for services to unemployed people and the community of south London.

DR SIMON L SINGH MBE (Physics 1987)
Broadcaster and author of Fermat's Last Theorem

MBE for services to the promotion of science, technology, engineering and maths and to science communication.

MR DAVID R SWALLOW OBE (Maths 1974)
Headmaster, Barry Comprehensive School

OBE for services to education.

DR ROGER WOOD OBE (MSc Chemistry 1968, PhD 1970)
Head of Data Quality, Food Standards Agency

OBE for services to the Department for Environment, Food and Rural Affairs.

New Fellows of the Royal Society

PROFESSOR WILLIAM BONFIELD CBE FREng FBSE FRS (Materials 1958, PhD 1961)
Professor of Medical Materials, University of Cambridge

PROFESSOR PETER DORNAN FRS
High Energy Physics Group, Blackett Laboratory, Imperial College London

PROFESSOR RICHARD HUGH SIBSON FRS (PhD Geology 1972)
Professor of Geology, Otago University (New Zealand)

PROFESSOR GEOFFREY SMITH FRS
Department of Virology, St Mary's campus, Imperial College London

PROFESSOR ANDREW JAMES WATSON FRS (Physics 1975)
Department of Environmental Sciences, University of East Anglia

Other awards

KEITH BATCHELOR (Chemical Engineering 1969)
Fellow of the Royal Academy of Engineering 2003.
Keith is currently Director of Engineering Operations at Foster Wheeler UK in Reading.

MARC GARNEAU (PhD Electrical Engineering 1973)
Prix Montfort for Science 2003. This prize was awarded to Dr Garneau in recognition of his involvement in the international and Canadian scientific community, as well as for his achievements as an astronaut and as President of the Canadian Space Agency.

DAVID HAND (Department of Mathematics)
Fellow of the British Academy 2003.

NOEL HYNES (Biology 1938)
Honorary DSc from the University of New Brunswick in April 2003, Emeritus Professor in freshwater biology at the University of Waterloo in Ontario, he is also a Fellow of the Royal Society of Canada.

MARANDA THOMSON (Chemistry 1999)
Named the UK Chemical Industry Young Person of the Year 2003 in September. The 26-year old analytical development chemist, who works for GlaxoSmithKline at Montrose is the first employee of the chemical industry in Scotland to win the title.

DR PIR TOOR (PhD Mechanical Engineering 1968)
ASTM 2003 Award of Merit and the accompanying title of Fellow. Currently a member of the technical staff at the Bettis Atomic Power Laboratory in Pennsylvania.

Promotion



MATTHEW KNIGHT (Electrical and Electronic Engineering 1991)

Matthew Knight has been appointed Electronics Design Engineer with the Special Engineering Projects Department at AnTech Ltd, a specialist engineering design and manufacturing company serving the international upstream oil and gas industries. In his new role, Matthew will have responsibility for further development of RED-I, AnTech's new data acquisition system that uses an infra-red 'eye' to transmit data in hazardous zones wirelessly, without external wiring for power or data transmission.

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