

Imperial's big hunt for tiny particles



**Detector at CERN
ready to go**

CENTRE PAGES



WIN A VIDEO IPOD!
Centenary launch
competition
announced

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NEW YEAR HONOURS
Services to medicine
and science
recognised

PAGE 3

100 years of living science

100

in brief



Language support offered

A new English language support programme to help non-native students learn more about different cultures and improve their conversational skills was set up at the College at the end of last year. Staff and student volunteers provide

either one-to-one or group support sessions to international students in a joint initiative between the Humanities' Language Support Programme and the Imperial Volunteer Centre, part of the College's Outreach Unit. Yong Zhao, a Master's student in Electrical and Electronic Engineering from north-east China, is already benefiting from the new scheme by meeting up weekly with PhD student Ruth Sayers. He said: "I really enjoy meeting up with Ruth and find it really useful. We discuss the main differences between China and the UK, including culture, food and the family. Speaking skills are the most important and often the hardest to learn." Visit www.imperial.ac.uk/volunteering to find out more.



Happy birthday Union bar!

The Union bar in Beit Quad at South Kensington Campus celebrated its 50th anniversary last week. The bar, frequently used by many of the Union's clubs and societies for their regular

social meetings, was celebrating the anniversary of its reopening in January 1957 following major refurbishments. Stuart Williamson, Union Trading Manager, said: "The bar has hardly changed since the refurbishment and still has its original wood panelling. We have kept the bar's original décor and pride ourselves on the traditional pub feel we have here." The original bar opened in 1911 and is packed with trophies and plaques, as well as a famous collection of pewter tankards donated by the founding members of societies, many dating back 80 years. Each tankard is engraved with the names of previous sabbatical officers, club officers and sports personalities.



Quantum information live via the web

Scientists based at the Institute for Mathematical Sciences are revolutionising the way they deliver their seminars with the launch of Quantum Information Live (*QILive*)—a new scheme which will see quantum information seminars being broadcast live on the internet for academic audiences worldwide. *QILive* was launched last week with a talk by Professor Gerard Milburn from the University of Queensland, Australia. The team behind the project hopes to transmit all the seminars and workshops being run by Imperial's Quantum Information research group, which will be approximately one every week during term time. In the coming weeks, seminars will be given both by researchers from Imperial and across the UK and by leading academics visiting from institutions overseas. Visit www.imperial.ac.uk/quantuminformation and click on the Quantum Information Live icon to view Professor Milburn's talk and other live seminar broadcasts.

Imperial College London

Centenary Launch Day

Tuesday 30 January

2007 marks the Centenary of Imperial College London. During our *100 years of living science* we have made a significant impact on the world. In 2007 we'll celebrate our achievements, and reflect on what we've done, and where we're going.

Come and enjoy the launch of our celebration.

► Free Centenary Cake During the Day

Cake will be served at all campuses — for locations visit the Centenary website.

► Centenary Launch Day Prize Draw

Prizes include: • video iPod containing Imperial vodcasts • £100 travel vouchers • £100 book tokens • £100 off membership or activities at Ethos • 100 chocolate bars • 100 free cups of coffee at catering outlets • 10 bottles of Imperial College Centenary wine • Centenary USB memory sticks.

To enter email your name to:

Centenary@imperial.ac.uk

Please submit all prize draw entries by

16.00 on Friday 2 February 2007.

► Guided Tours of Queen's Tower

Tours of the tower will take place throughout the day. Don't miss this rare opportunity to visit the viewing gallery.

► Centenary Launch Lecture

Sir Richard Sykes will launch the Centenary with the first prestigious lecture of 2007.

There will be live jazz music from Imperial musicians before the lecture.

Time: 18.00 • The Great Hall, Sheffield Building, South Kensington Campus.

For free tickets, please email **events@imperial.ac.uk**

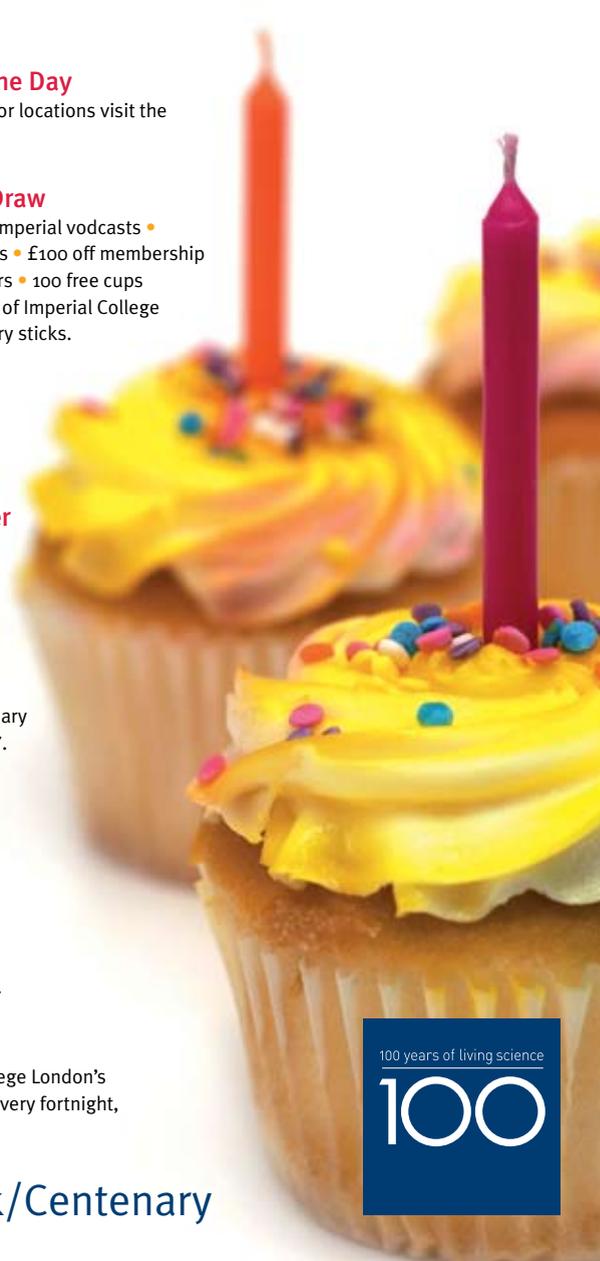
Not able to attend the lecture? It will be streamed live on the Centenary website.

► Stay Informed

If you would like details of Imperial College London's events delivered directly to your inbox every fortnight, please email **events@imperial.ac.uk**

www.imperial.ac.uk/Centenary

Be sure
to enter the
Launch Day Draw!



100 years of living science

100

Royal recognition for Imperial profs

Emeritus Professor Malcolm Green of the National Heart and Lung Institute (NHLI), received a knighthood in the Queen's New Year Honours for his services to medicine and Professor Jeffrey Waage, from the Centre for Environmental Policy, received an OBE for his services to science.

Sir Malcolm, a Professor of Thoracic Medicine, appointed consultant physician in 1975 at St Bartholomew's and Royal Brompton Hospitals, recently retired from his posts at Imperial as Professor of Respiratory Medicine, Vice Principal of the Faculty of Medicine and Head of the NHLI.

Sir Malcolm explained: "I am delighted and thrilled to be honoured in this way. I have been proud to work at the NHLI and Imperial with so many great doctors and biomedical scientists. This award is a tribute also to their work and achievements, particularly in the fields of heart and lung research".



Emeritus Professor Malcolm Green was the recipient of a knighthood in the Queen's New Year Honours.

Sir Malcolm is renowned for his energetic approach to raising money for research into respiratory disease, as well as his medical expertise, and he founded the British Lung Foundation. He has had a major interest in research throughout his career, focusing particularly on respiratory physiology. In addition, he worked in the field of air pollution, increasing public awareness of the effects of pollution on lung health.

Professor Waage

Professor Waage, who first joined the College in 1978, has spent much of his career working on the biological control of pests. As Director of the International Institute of Biological Control, part of the Commonwealth Agricultural Bureau, he led the development of a number of breakthroughs, including a biological product for the control of locust plagues. He also helped to found and lead the Global Invasive Species Programme and its campaign to reduce the impact of alien species invasions worldwide. At Imperial, he has led and restructured departments of agriculture and environmental science, and contributed to agricultural research policy



Professor Jeffrey Waage, pictured with his portrait at the Wye Campus, received an OBE. The portrait, unveiled at the end of October, marks his contribution to Wye as Provost from 2001-04. It was funded by the Agricola Club.

through positions on the BBSRC Strategy Board and the Defra Science Advisory Council.

Professor Waage spoke of what this honour means to him: "I am grateful for the colleagues and support I have had these past years at Wye and Imperial. I regard this honour as a challenge for what I should do next, as much as a reward for what has been achieved, and it is particularly nice for me, as an expatriate American of 30 years residence, to feel that I am making a useful contribution to my adopted country."

The Rector, commenting on their accolade, said: "The research foci of Sir Malcolm and Jeff are different in many ways, but they are joined by a commitment to improving lives and their influence will be felt for many years to come. I am delighted that their major contributions have been recognised so prominently."

— NAOMI WESTON, COMMUNICATIONS

First steps for UK medical excellence cluster

Greater collaboration between a cluster of world class universities such as Imperial, Oxford and Cambridge, pharmaceutical companies and hospitals will allow the south east of England to take on the world's best, if a proposed global medical excellence cluster (GMEC) goes ahead.

The Rector and the Principal of the Faculty of Medicine, Professor Stephen Smith, joined the Prime Minister at Downing Street in December to discuss the idea of forming a GMEC. The aim would be to ensure that London and the south east of England were at the forefront of global pharmaceutical and medical research and development.

Professor Smith, who spoke at the meeting about the potential benefits of the project, said: "Healthcare research and

development is increasingly global and in the UK we are competing with medical clusters across the world. There is a risk that if no action is taken, the UK will fall behind. We have a unique opportunity to build a leading global medical excellence cluster in the south of England based on the assets of the world class medical institutions like Imperial".

Well-developed medical clusters already exist in California and in Boston, Massachusetts. Other clusters are emerging in Singapore, New Delhi, Dubai and Shanghai.

Prime Minister Tony Blair told the heads of universities, pharmaceutical companies and hospitals at the meeting that such a cluster would be a source of economic prosperity and a powerful signal of the type of country and economy the UK would be in the future.

— LAURA GALLAGHER, COMMUNICATIONS



Prime Minister Tony Blair believes that a global medical excellence cluster in the south east of England would be a source of economic prosperity

media mentions

—LAURA GALLAGHER, COMMUNICATIONS

THE TIMES, 15 DECEMBER

Dusting off planetary theories

The first extraterrestrial material collected from space since the Moon landings has been giving up its secrets to researchers. *The Times* reported that grains of stardust captured by NASA from the tail of the *Wild 2* comet are raising new questions about how planets formed. The range of minerals and organic materials in the dust, which is believed to have been created during the first 10 million years of the solar system, has led scientists to conclude that the early solar system was much more volatile than previously thought. Imperial's Dr Phil Bland (Engineering), one of those analysing the samples, said: "Fundamentally we still don't know how you make planets from a cloud of dust and gas. Hopefully the *Wild 2* samples will help us towards an answer."



THE GUARDIAN, 28 DECEMBER

It's not the money but the taking part that counts for 2012

Universities are unlikely to get rich on the back of the 2012 London Olympics, according to *The Guardian*. However, universities from all over the UK want to use the event as the catalyst to bring sport and fitness to the top of the higher education and political agenda. Neil Mosley, Imperial's Head of Sport, said: "Universities aren't going to make any money out of this but we do get the opportunity to be involved in one of the biggest sporting events in the world and we can be part of that".



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To sign up, please visit:
www.imperial.ac.uk/aboutimperial/news/newsandpremailservices

THE SUNDAY TIMES, 31 DECEMBER

Corrugated iron more important than going to the moon, says professor

We shouldn't overlook the importance of the inventions which shape our lives just because they lack glamour, argues Professor David Edgerton (Natural Sciences) in his new book *The Shock of the Old*. Corrugated iron sheeting and bicycles feature more prominently in all our lives than the Apollo moon missions and nuclear submarines. "In terms of the technology that is actually used, it's very different from the stories of invention and innovation that are told," he explained in *The Sunday Times*, "those stories are narrow—our creativity is more general than we think."

THE GUARDIAN, 2 JANUARY

Imperial invention brings cheap drugs hope

An Imperial academic has devised a way to invent new medicines and get them to market at a fraction of the cost charged by big drug companies, reports *The Guardian*. Working with a colleague from the London School of Pharmacy, Professor Sunil Shaanak (Medicine) has devised improvements to the molecular structure of an existing, expensive drug to turn it technically into a new medicine that is no longer under patent to a multinational drug company. "I'm not only an inventor of medicines—I'm an end user," he told the paper. "We have become so completely dependent on the big pharmaceutical industry to provide all the medicines we use. Why should we be completely dependent on them when we do all the creative stuff in the universities?"

THE SUNDAY TIMES, 7 JANUARY

Shiny Happy People

People who take the time to chat over the fence to their neighbours, have plenty of sex in a stable relationship and care about endangered species tend to be happier, according to a report by Tony Blair's 'department for happiness'. Gardening, praying and going for walks are also all linked to broader smiles, says the study, written by Imperial's Professor Paul Dolan (Tanaka Business School), who said that the practical implications for policy might prove contentious. "It's shown that married people are happier—so what does that mean for politics? Does it follow that we should be encouraging people to marry?" he asked in *The Sunday Times*.

working towards good health

New Year, same problem?



Care First is a free confidential counselling, help and information service, available to all staff at Imperial at no cost to the individual.

Care First offers professional debt counselling and help with a range of other problems, whether they concern your working or personal life.

If you're dreading how you will pay your credit card bill after Christmas or struggling with a difficult relationship, contact Care First on 0800 174319.

Research income rises by 16 per cent

The College's Report and Accounts 2005-06 are now available. Headline figures show that research income has risen by 16 per cent, to over £200 million and turnover by 10 per cent to over £500 million. Martin Knight, Chief Operations Officer, although pleased with the figures said: "An operating surplus of only £198,000 reinforces the now conventional message that there is no room for complacency or relaxation."

Other highlights of the financial year include the flotation of Imperial Innovations and the development of the College Fund. For further details, look out for an *A word with...* featuring Martin Knight, coming soon in *Reporter*.

► Visit <http://www3.imperial.ac.uk/finance/publications/> to read the *Financial Statements* online.





Professor Nagy Habib was introduced to the Pope in September last year after giving a lecture on the therapeutic indications for stem cell therapy. Professor Habib from the Division of Surgery, Oncology, Reproductive Biology and Anaesthetics, was attending a conference entitled *Stem Cells: what future for therapy?* held in Rome, which provided a forum for discussion of the science and ethics of stem cells. This year, Professor Nagy Habib's group are planning to carry out clinical trials using stem cells to treat heart disease, diabetes and stroke. They have recently successfully completed phase I and II clinical trials using stem cells from adult patients' own bone marrow to treat liver disease.

AIDS on the agenda with ambassador visit

US Global AIDS coordinator Ambassador Mark Dybul implored Imperial students to get engaged with HIV/AIDS issues when he visited the College last week.

Ambassador Dybul, at Imperial to find out about our efforts to prevent and treat HIV/AIDS, told the students present: "You guys have got to get engaged with this and get involved and solve some of these problems".

Ambassador Dybul coordinates all US government HIV/AIDS activities and leads the implementation of PEPFAR, a \$15 billion global initiative launched in 2003. He requested the visit after meeting Imperial experts at a World AIDS Day meeting hosted by the College in November 2005.

At last week's meeting Geoff Garnett, Professor of Microparasite Epidemiology from the Department of Infectious Disease Epidemiology, gave an outline of some of the HIV projects underway at Imperial, many of which feed into PEPFAR's work.

These include trials of microbicide creams or gels to prevent the transmission of HIV, research into the prevalence of HIV in different parts of Africa, and research into the most effective strategies for treating HIV including a trial to explore the impact of treating the primary stage of the infection.

Professor Garnett said: "Imperial has a very substantial investment in HIV/AIDS research and we have many collaborations



Ambassador Dybul, coordinator of US government HIV/AIDS activities, visited Imperial last week

with research organisations around the world. Dramatic changes have occurred in HIV over the last few years, particularly in terms of investments providing treatment with antiretroviral drugs".

Over the course of five years, PEPFAR aims to provide antiretroviral treatment to two million HIV-infected people in places where resources are limited, prevent seven million new infections, and to support care for 10 million people. Ambassador Dybul said that PEPFAR was well on its way to meeting these targets by 2008.

—LAURA GALLAGHER, COMMUNICATIONS

Awards and honours

'Invisibility cloak' named among top breakthroughs of 2006

Science magazine has ranked the prototype 'invisibility cloak,' devised by Professor Sir John Pendry of the Department of Physics, in fifth place in its list of the top 10 breakthroughs of 2006. The 'cloak', made of metamaterials by Sir John's collaborators at Duke University, USA, works in two dimensions and renders objects invisible to microwaves. The team is now hoping to develop a version which works in three dimensions.

EPSRC award funds quantum coherence collaboration

A new physics collaboration between Imperial and the Universities of Oxford and Cambridge is being set up with the help of a £6 million award from the Engineering and Physical Sciences Research Council. The funding will be used to explore the ideas and applications of quantum coherence, with Imperial's share of the grant being used to pay for two new academic posts in the Department of Physics, working alongside Professors Sir Peter Knight, Edward Hines and Jonathan Marangos, existing senior academics in the Department specialising in this field.

Gates Foundation grant steps up the fight against tropical diseases

The Schistosomiasis Control Initiative, established at Imperial by Professor Alan Fenwick, has received a major boost with a grant of \$10 million from the Bill and Melinda Gates Foundation. It forms part of a \$46.7 million award by the Foundation aimed at coordinating and integrating programmes to fight neglected tropical diseases in developing countries. The SCI targets parasitic diseases in six African countries and has so far treated over 20 million people in high risk situations.

Computing professor is named a Fellow of the ACM

Professor Alexander Wolf of the Department of Computing has been made a Fellow of the Association for Computing Machinery for his contribution to both the practical and theoretical aspects of computing and information technology. The honour recognises his research in the field of distributed system software engineering and also his services to the scientific community, which include chairing a number of international software program committees and serving on the editorial board of the journal *Transactions on Software Engineering*.

Life, the universe and everything

Imperial-led team strives to answer the biggest questions

A 2,000-strong team of scientists from institutions around the world, led by Professor Jim Virdee from Imperial's Department of Physics, is currently stepping up preparations for the largest particle physics experiment in the world. The work should provide answers to some of the biggest mysteries of the universe, such as where mass comes from and how many dimensions there are. The Compact Muon Solenoid (CMS) experiment forms part of a large series of experiments due to take place at CERN – the European Organisation for Nuclear Research – when the underground Large Hadron Collider (LHC) particle accelerator is turned on later this year.

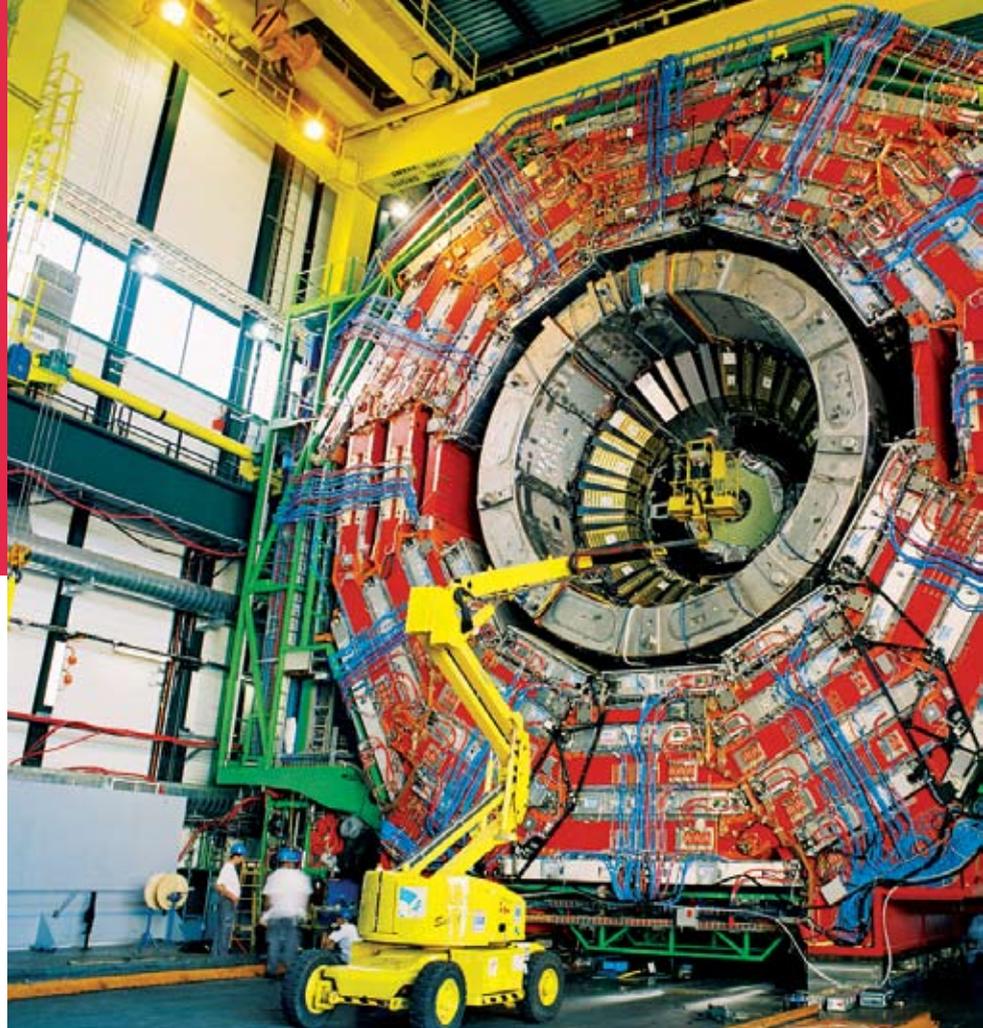
The CMS experiment team, which includes a number of academics from Imperial, has designed, engineered and built the detector over the past 15 years. The 12,500 tonne, 21-metre-long structure will measure the properties and energies of new particles created when particles from the LHC collide at extremely high energies.

Professor Virdee explains: "When the particles smash into each other inside the CMS detector, the high energy conditions created in these collisions will be similar to those that occurred in the first instants of the universe, immediately after the Big Bang. The unique conditions created by these collisions will create many new particles that would also have existed in those early instants. Resultant particles will fly away from the collision site in all directions. The different layers of our complex detector will measure the properties of these particles, track their paths and measure their energies. An extremely powerful magnet built into the detector will bend the paths of electrically charged particles to help us identify the different types of particles produced in the collisions."

The team involved are particularly hoping to detect the Higgs-Boson particle, which has been theoretically predicted but never actually recorded. Scientists believe that this particle gives the property of mass to other particles.

Constituent parts of the CMS detector, weighing up to 2,000 tonnes, are currently being lowered 100 metres into a cavern in the French countryside near the Swiss border where they will be re-assembled and prepared for data taking over the course of the next year. The particle accelerator will be switched on to record data just before Christmas 2007.

—DANIELLE REEVES, COMMUNICATIONS



The large component parts of the CMS detector are assembled at a site near the French town of Cessy, before being lowered 100 metres underground into the cavern where they will be put together in time for when the Large Hadron Collider particle accelerator is switched on later this year.

Professor Sir Peter Knight, Principal of the Faculty of Natural Sciences, spoke of his support for Imperial's involvement in the experiment.

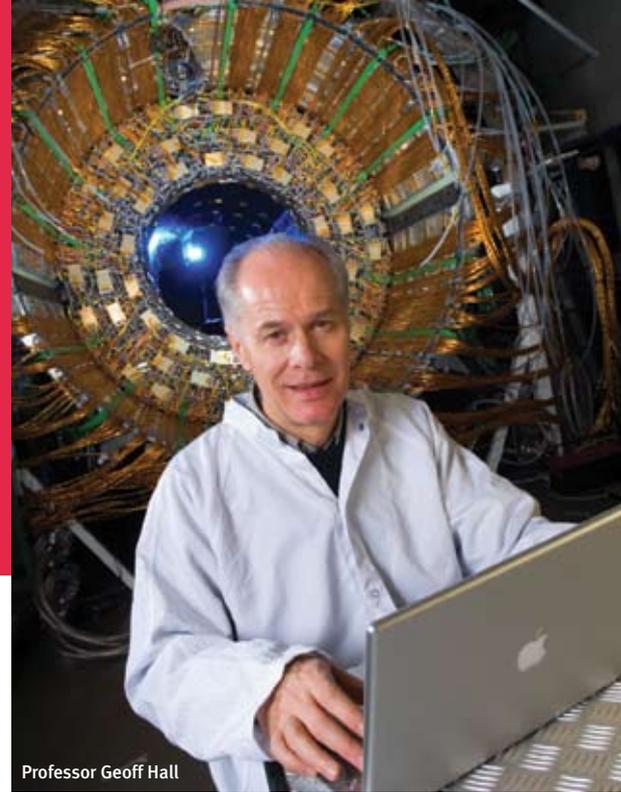
"It's great that Imperial is so closely involved with an experiment which has the potential to revolutionise our understanding of physics and the universe as a whole. The CMS detector could provide proof of the existence of the Higgs-Boson particle, which has been theoretically predicted but never recorded before - this would be a momentous achievement.

"For well over 10 years, scientists from Imperial have been at the heart of the large, multinational team behind the CMS experiment. Now, in this, the most important year when the particle collider will be switched on at CERN, Professor Jim Virdee from our physics Department has been appointed lead scientist on the project. This is fantastic news for Jim, the College and the experiment, and we'll all look forward to seeing some interesting results from him and his team, as the data starts to come in later this year."





Professor Geoff Hall is Imperial's team leader for the project and Dr Jordan Nash is the electronics coordinator. Communication's Danielle Reeves went to CERN to meet them.



Professor Geoff Hall

What's your role in the CMS experiment team at CERN?

GH: I am the Imperial team leader and my part of our group has been responsible for electronics for the CMS tracker silicon microstrip detectors, which measure the paths of the hundreds of charged particles emerging from each proton-proton collision, every 25 nanoseconds. In particular, we had to develop very high speed and radiation-hard electronics, and study the performance of sensors and integrated circuits which read them out. When we started in 1991, this was a completely new field, about which little was known, and it would have been impossible then to build the experiment we have now almost completed.

JN: I'm the CMS electronics coordinator, which basically involves making sure that all the electronics involved in reading out the experiment will work together, and be delivered and installed on time.

How long have you been working out at CERN and how do you split your time between Switzerland and South Kensington?

GH: I have been involved in CMS since the start and I have been traveling back and forth to CERN for all of that time, with increasing time spent in Geneva, so at present I am there every week nearly all of the time. We're now completing the assembly of the tracker and installing the off-detector electronics in the underground area next to the experimental cavern.

How broad is Imperial's involvement in this experiment?

GH: We rely heavily on our students, especially postgraduates preparing PhDs. Many of them have written theses on the technical developments, as well as the physics studies in preparation for LHC, and spend a lot of time in CERN as a result. We have had undergraduates working on projects in our lab at Imperial every year as well.

What are the biggest challenges of working on an experiment this size?

JN: There are big technical and social challenges in this environment. The CMS experiment is processing an enormous amount of data from many different types of detector. As all the pieces need to work together flawlessly, this involves all the hardware understanding how to communicate, as well as all the teams from all over the world working and communicating effectively.

What do you think are the most exciting possibilities of this experiment?

GH: It's difficult to know what will actually be found when LHC turns on and we cannot even be sure the simplest version of the Higgs particle will be found, so no-one should assume the discoveries will be simple. What we are confident about is that there must be new physics at the LHC and that's what makes it so interesting. The excitement of making discoveries is in part because we are not sure what nature has in store, and gradually decoding the messages it has for us.

Regarding the technological breakthroughs, CMS has been immensely difficult to build and looking back on what has been achieved, it impresses me that so many people can work together to overcome almost impossible challenges. We're now considering how to try and upgrade the experiment for even more intense beams, and that mainly means building a completely new tracking detector at the centre of CMS. That will be really difficult!

What are you most looking forward to on-site in the coming year?

JN: The first year of operation is one of the most exciting and challenging times in any experiment. This is the time when all the years of preparation and planning come to fruition and you learn how to operate and understand your detector. I'm looking forward to seeing how the detector performs when it is first fully assembled. The first glimpse of data from the LHC in early 2008 has the potential to revolutionise our understanding of the fundamental particles in the universe and is something all of us on CMS have been waiting for eagerly over the past 15 years. It is a truly exciting time for particle physics!



Video interviews

RealPlayer video interviews with Imperial scientists based at CERN can be viewed at http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newsummary/news_15-12-2006-9-52-44?newsid=3214
All video footage was taken by Imperial's Media Services team.



The Royal College of Chemistry Legacy

The Royal College of Chemistry (RCC) is important to the history of the College as it was the first of our founding colleges and at the forefront of academic science teaching and research in the 19th century.

The initial title for the RCC was the Davy College of Practical Chemistry, named after Humphrey Davy, an esteemed British chemist who died in 1829. It was organised by a group of like-minded men associated with the chemical professions, who were frustrated by the lack of experimental, laboratory-based study of chemistry in the country at the time. To receive it, chemists had to travel to Germany to train under Liebig or Wohler, but this was an expensive proposition. The new College would ensure more opportunity for the less wealthy.

In 1845 Prince Albert, persuaded by the Queen's Physician Sir James Clark, took on the role of President of the College. He used his influence to intercede with the German Government, establishing August Wilhelm von Hofmann as Extraordinary Professor of Chemistry at Bonn with a leave of absence for two years. This enabled Hofmann to take up the post of first Professor of Chemistry at the College. Hofmann's influence extended to approving the plans for the school, and purchasing the higher quality glass available in Germany for the manufacture of laboratory equipment.

Perhaps unsurprisingly under this leadership, the College mirrored training laboratories from continental Europe, and its first advertising prospectus promoted it as being:

'..mainly devoted to *Pure Science*; at the same time, to meet the exigencies of this country, and to adopt the latest improvements in the continental schools, an appendage will be provided, devoted to the Economic Arts, where enquiries relating to Pharmacy, Agriculture and other [practical training] may be pursued.'

The institution opened in 1845 as the Royal College of Chemistry, and early developments included work on coal tar, the establishment of the synthetic dye industry, (notably by Henry Perkin through his discovery of Mauveine, the first synthetic organic dye) and the analysis of the well water at Bath Spa.

Today, the Hofmann Professorship remains at Imperial, and is currently held by Professor Richard Templar.

— ANNE BARRETT, ARCHIVES AND CORPORATE RECORDS



The Royal College of Chemistry laboratory building, designed by the architect James Lockyer and opened in 1846

London's health safe in surgeon's hands

A strategy to meet Londoners' health needs over the next five to ten years is being developed by Imperial's Professor Sir Ara Darzi. NHS London has tasked Sir Ara with setting out the best possible models of care for patients, to provide the principles for any future local changes in the NHS.

Sir Ara, who holds the Paul Hamlyn Chair of Surgery and is Head of the Division of Surgery, Oncology, Reproductive Biology and Anaesthetics, will look at examples of high quality healthcare across the UK and in other parts of the world, in particular large cities, and draw on those to set out the framework for Londoners' future healthcare.

NHS London believes the new strategy, which will be known as 'Healthcare For London: A Framework For Action,' is needed because London's health services are not keeping pace with the changes in medicine, and that London's world class reputation in health science research is in jeopardy if the capital does not change.

Sir Ara will be gathering input from GPs, and front-line NHS staff. He will also consult and involve patients, the public, MPs, the Mayor of London, the Greater London Authority, London Councils, user organisations and academic institutions.

Sir Ara said: "I am determined that we discuss the future properly not only with relevant London organisations, but also with those with experience of providing and receiving NHS services – front-line staff and patients. We will be organising events to discuss ideas and inviting feedback through a website and other means. There will be some complex and difficult choices to be made and we must involve staff, patients and the public properly to help us make them."

Chief Executive of NHS London, Ruth Carnall, added: "I am delighted that Professor Darzi has agreed to lead this work. His leadership of Healthcare for London means we have a fantastic opportunity to understand how to provide the best possible health services for patients and the public."

An initial document, setting out the framework and models of service for patients will be published in the spring. A further process of wide-ranging public involvement and discussion will produce a final health strategy for London which will be published in the summer.

— LAURA GALLAGHER, COMMUNICATIONS



Professor Sir Ara Darzi has been tasked with setting out the best possible models of care for London patients

► For more information visit www.healthcareforlondon.nhs.uk

a day in the life of...

Jo Evans

Sports Centre Manager, *Ethos*



Running is an important feature in Jo Evans' life – which is just as well as she spends very little time sitting down. Jo has managed Imperial's flagship sports centre, *Ethos*, since its opening in January 2006 and now welcomes up to 1,200 users on a busy day.

Wendy Raeside went to meet her to see how she spends a typical day in her working life.

8.20

Jo's day begins with a six-mile cycle to Wimbledon tube station and a 30 minute commute. Her first task is to touch base with the centre's Duty Manager. She explained: "Every morning, we have a quick chat to check that things are ok with staff, the cleaning has been done and everything is open and working. We also go through the communications book to catch up on any incidents from the previous evening."

9.00

After confirming everything's in order, Jo looks through her emails and checks any outstanding issues.

9.30

Normally a couple of hours each morning are reserved for working on new projects – for example, Jo has been busy recently with the introduction of Club Imperial, a new sports scheme for staff that has seen a monthly charge introduced for the use of *Ethos* facilities. She said: "The charges were bound to have an impact, but we believe the heavily discounted price of £18 per month will help ensure most staff members stay with us. Club Imperial also allows individuals to be matched for different sports, which will hopefully motivate people further." Jo also checks on the bookings database that space in the centre is spread across different users. She said: "There is huge demand for the swimming pool and sports hall with 14 different clubs wishing to use them on a weekly basis for anything from water polo and canoeing to badminton and squash."

11.30

Jo goes on a 'walkabout' of the centre to see for herself how things are running. "It gives me a chance to look at aspects like whether the cleaners are doing their job and how we could improve our marketing," she says. Jo is well-informed on the local competition, as before joining Imperial in September 2005, she managed the branch of LA Fitness in South Kensington.

12.30

Lunch is usually at Jo's desk which she admits is not very healthy – unlike her choice of food, a couscous salad.

14.00

Weekly meeting with the five Duty Managers. "Because they work different shifts, this is an important opportunity for us to share our experiences," says Jo.



15.00

Jo shows a group of VIP visitors around the centre. *Ethos* is widely recognised as a leading edge sports facility, so there are often parties from other organisations who want to learn from Imperial's experience. Jo shows visitors the high tech facilities and explains the different membership packages on offer – as well as Imperial staff and students, *Ethos* is used by external members including local residents, nearby schools and outreach groups during school holidays.

16.00

Jo does another quick circuit of the centre to ensure everything's ready for the evening rush. Most students visit *Ethos* from late afternoon onwards and, at busy times, there can be as many as 650 users a day in the gym and 400 in the swimming pool. 85 per cent of the entire student body use the Centre and there are more than 2,000 registered staff members.

Jo herself however admits she is not a regular user of facilities at the centre for two reasons – firstly, it is difficult to switch off from her managerial role and, secondly, her real love is running. "I did the London Marathon 11 years ago and that's what really got me into it," she says.

17.15

If it is one of her running club nights, Jo leaves now. After her cycle home, she completes an 8–12 mile run with her club. On non-running nights, Jo leaves the centre an hour later. "If there is a situation, I will stay behind and make sure it's sorted. But I am lucky to have a very strong Duty Manager team who are able to deal with almost everything."

22.00

Ethos closes for the night and Jo can relax – until this time, she remains on call just in case she is needed. "It can be a long day, but I am passionate about my work so it's not a problem," says Jo.

centenary update

As Sir Richard Sykes wrote in his first blog of 2007, “the first day back after the Christmas break usually marks the close of festivities, but for Imperial College today is just the beginning of a year of celebrations.”

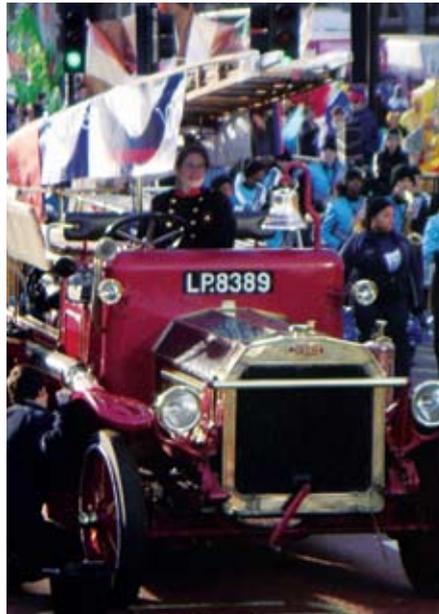
The College’s Centenary Year has begun, and no time was wasted before opening the celebrations. The first Centenary event of 2007 took place on the first day of the year, with past and present students from all three of Imperial’s faculties joining the motorised mascot Jezebel, maintained by the RCS Motor Club, for the 21st New Year’s Day Parade broadcast on television worldwide.

If you missed the parade, there are many more events for you to enjoy throughout 2007. Centenary events booklets were sent to all staff at the end of 2006 and are available to all students through the Imperial College Union—for further copies and for free promotional bookmarks, please email Centenary@imperial.ac.uk.

—PAMELA MICHAEL, COMMUNICATIONS

► *Further events are still being planned so keep checking www.imperial.ac.uk/Centenary for updates. If you would like to hold an event to mark the Centenary, there’s also a toolkit online to help you.*

► *A brand new Centenary website is being designed at the moment. Look out for its launch during the week beginning 22 January. Learn more about the College’s history through the interactive timeline and share your own stories of your time at Imperial.*



Obituaries

Tony Evans

It is with great sadness that Reporter announces that Mr Tony Evans, Department of Earth Science and Engineering, died on 30 December 2006 following a recent diagnosis of liver cancer. Professor Howard D. Johnson writes of his departmental colleague: Tony joined the Department in



September 2000 working as director of a research alliance between Imperial and the Energy and Geoscience Institute at the University of Utah.

He contributed actively to the Petroleum Geoscience MSc course through lectures, the coordination of group projects and supervision of independent research studies. He had previously spent 26 years as an

► *The Editor is pleased to accept brief appreciations in remembrance of colleagues, reserving the right to edit these before publication. Please email a.platt@imperial.ac.uk*

exploration geoscientist for Shell working in locations including Brunei, Nigeria, Norway, the Netherlands and Venezuela, in addition to the UK. Tony brought great vitality, massive industrial experience and unbridled enthusiasm to all his work and will be greatly missed by staff and students alike.

Dr Serge Shybayev

Dr Serge Shybayev, a Research Associate from the Institute for Mathematical Sciences, died on 1 January in a domestic accident while visiting his family in the Ukraine. His colleague, Professor David Hand, writes: Serge was part of the Aladdin project consortium and was working on decision-making processes in changeable environments with poor-quality data. He was an outstanding mathematician, having been awarded the Gold Medal of Excellence on graduating from the Specialised Physics-Mathematics School at Kiev State University and studying at the Moscow Institute of Physics and Technology, and the Glushkov Institute of Cybernetics. He will be sorely missed by all his friends and colleagues.

inventors corner

Catching the business bug

A scientist’s place is in the laboratory and the boardroom— that is the philosophy of Imperial’s Entrepreneurship Centre.



Operating under the banner ‘One day you will need more than just a degree’, the Centre gives students the opportunity to explore their innovative ideas and develop the skills needed to turn them into successful business ventures.

Riccardo Matjaz Bennett-Lovsey is one of the Centre’s success stories. Now working with Imperial spin-out company Equinox Pharma Ltd, Riccardo arrived at the College in 2002 to carry out a PhD in bioinformatics, without any expectation that he would end up learning as much about business as about science.

He was persuaded to join a team entering the Entrepreneurs Challenge, a business plan competition run annually by the Entrepreneurship Centre. The team won the runners-up prize of £5,000 with their plan for a technology providing an alternative to antibiotics for treating bacterial infections.

This success triggered a long-term enthusiasm for business plan competitions, and the team went on to perform strongly in several more.

“We probably wouldn’t have carried on if we weren’t doing well, but we were and it became a hobby,” Riccardo recalls.

His enthusiasm led him to apply for and receive an Enterprise Fellowship delivered by the Royal Society of Edinburgh, and funded by Scottish Enterprise and the Biotechnology and Biological Sciences Research Council. This enabled him to study for an MBA at the University of Dundee and also provided a year’s salary that allowed him to work with Equinox Pharma, a biotechnology company founded by his PhD supervisor Mike Sternberg, Molecular Biosciences, with fellow Imperial academics Stephen Muggleton, Computing and Paul Freemont, also Molecular Biosciences.

Following a recent injection of £500,000 from a private investor and Imperial Innovations, Equinox Pharma has taken up a place in the newly-opened Biolncubator and offered Riccardo a full-time position. Professor Sternberg says:

“Riccardo has been a major help to Equinox as he combines a detailed understanding of the science with a keen insight into commercial opportunities. His enthusiastic contribution has been most helpful in obtaining funding for the company and developing its IP portfolio.”

Simon Barnes, former director of the Entrepreneurship Centre, says Riccardo’s experience sums up exactly what the Centre aims to do.

“Riccardo is a great success story—a bright, technically gifted student who suddenly caught the entrepreneurship bug,” he says. “The Centre can take students like this who may not have any background in business and give them the knowhow they need to harness their talent.”

—ABIGAIL SMITH, COMMUNICATIONS

► *Imperial Innovations may be able to help you find an alternative commercial application for your research. For further information, please visit www.imperialinnovations.co.uk or contact the technology transfer team on 020 7581 4949.*

welcome

new starters

Dr Virginia Acha, Business School
Dr Cassandra Aldrich, Cell and Molecular Biology
Professor Neil Alford, Materials
Dr Emre Amirak, NHLI
Ms Ambreen Ashraf, Investigative Science
Mr Dalan Bailey, Investigative Science
Dr Romina Barbagallo, Investigative Science
Mr Paul Barron, Faculty of Engineering
Miss Neesa Bhudia, NHLI
Mr Matthew Birchall, ICT
Mrs Celeste Bright, Development and Corporate Affairs
Dr Lynda Brinkman, NHLI
Dr Karin Burnett, Medicine
Mr Michael Butler, Medicine
Dr Jessica Buxton, Medicine
Dr Alexander Cameron, Molecular Biosciences
Mr Mate Car, EPHPC
Emeritus Professor Colin Caro, Bioengineering
Dr Margaret Christie, Research Services
Miss Emma Condon, EYEC
Mrs Emma Cooper, Business School
Miss Emma Coward, NHLI
Mr Marcus Cramer, Physics
Dr Radhika Desikan, Biology
Dr Mohamed Draief, Electrical and Electronic Engineering



Professor Jeremy Jass joined the Department of Surgery, Oncology, Reproductive Biology and Anaesthetics at Imperial this month. He leaves McGill University in Montreal where he held a Canada Research Chair. Professor Jass, who has a strong international reputation in Clinical Gastrointestinal Pathology, researches colorectal cancer and the premise that this is not one disease, as is generally supposed, but a group of different diseases.

Dr Andrew Durham, NHLI
Dr Gillian Elliott, Investigative Science
Ms Farrah Fatih, Biology
Miss Audrey Fernandes, NHLI
Mr John Foley, Security Services
Mr Brian Fuchs, Computing
Dr Bharathram Ganapathisubramani, Aeronautics
Mr Kondala Gandu, Electrical and Electronic Engineering
Dr Vanessa Garcia-Larsen, NHLI
Mrs Yasmeen Ghani, Cell and Molecular Biology
Miss Helen Green, Development and Corporate Affairs
Mr Abdillahi Gudaal, Security Services
Mrs Claudia Harriott, Faculty of Natural Sciences
Mr Jeffrey Hau, Computing
Dr Sandrine Heutz, Materials
Dr Tetsuro Ikeda, Medicine
Mrs Katherine Jackson, Mechanical Engineering
Mr Adam James, SORA
Professor Jeremy Jass, SORA

Mr Matti Juvonen, Computing
Ms Rujni Kader, Faculty of Medicine
Dr Giolanta Kogianni, SORA
Miss Kristin Kuldane, Medicine
Mr Klaudiusz Lach, Commercial Services
Professor Ari Laptev, Mathematics
Dr Phang Lim, NHLI
Mr James Lloyd, Research Services
Miss Angela Lonergan, Chemical Engineering
Dr Rasmila Maksimovic, Neurosciences and Mental Health
Dr Stella Major, EPHPC
Miss Shadia Luyima, Faculty of Medicine
Dr Kevin McGerty, Mathematics
Mrs Rebecca Mitchell, Finance
Miss Saiqah Munir, Medicine
Miss Zhifang Ni, SORA
Miss Anastasia Niarchou, Physics
Mrs Teresa Norat, EPHPC
Dr Pavel Novak, Medicine
Ms Lucy Parker, Faculty of Medicine
Miss Delores Paryag, EYEC
Miss Rekha Patel, NHLI
Dr Nazima Pathan, NHLI
Dr Christina Petsoulas, Business School
Mr Nagaraju Pogaku, Electrical and Electronic Engineering
Mrs Christina Precht de Hernandez, Investigative Science
Ms Charlotte Ramsay, Electrical and Electronic Engineering
Mr Tam Rankin, Registry
Mr Donald Riden, Computing

Dr Ahilan Saravanamuthu, Investigative Science
Mr Mathew Sargent, Investigative Science
Mr Shahram Shagbahai, Computing
Dr Michael Shaver, Chemistry
Mr Karl Smith, Civil and Environmental Engineering
Mr Philip Stewart, Imperial College Union
Ms Sonia Suarez Vilas, Security Services
Mrs Julie Talbot, Faculty of Natural Sciences
Ms Nina Torcelino-Iszatt, EPHPC
Dr Vimal Vasu, Medicine
Miss Beatrix Vegh, Business School
Mr Peter Vos, Aeronautics
Miss Jane Wilson, SORA

farewell

moving on

Mrs Yasmina Aguiar Martins, NHLI
Mr David Ahern, NHLI
Mr Giovanni Gutierrez Alvarado, Civil and Environmental Engineering
Miss Cristina Amil, Catering Services
Dr Elsa Aristodemou, CEP
Dr Maria Ausin, NHLI
Mr Jon Ball, Materials

Miss Maria Baou, Investigative Science
Mr Simon Barker, Physics
Dr David Barnes, Investigative Science (6 years)
Dr Carl Baxter, Chemistry
Miss Dorin Benardout, SORA
Mr Hafiz Bidmus, ICT
Dr Hugh Blackburn, Aeronautics
Dr Simon Bott, Physics
Mr Paul Bowyer, Cell and Molecular Biology
Mr Rob Bryant, Security Services (10 years)
Mr Ian Bucklar, ICT
Dr Neil Cartwright, NHLI
Dr Chee Chen, EEE
Dr Alvin Chua, Physics
Dr Matthew Cleary, Mechanical Engineering
Dr Olivier Cloarec, SORA
Dr James Cook, Biology (11 years)
Dr Tessa Crompton, Cell and Molecular Biology (9 years)
Dr Richard Curry, Business School
Miss Kim David, SORA (5 years)
Mr Konsta Duesing, Medicine
Ms Suzy Duffy, SORA (9 years)
Dr Estelle Dumas, Investigative Science
Dr James Duncan, Molecular Biosciences
Dr Ilya Eigenbrot, International Office (12 years)
Dr Stephan Ellmerich, Investigative Science
Dr Alexander Ermakov, NHLI
Dr Peter Ess, Aeronautics
Mr Abdelkader Essafi, SORA
Miss Nicola Fagg, Faculty of Medicine
Dr Tricia Finney-Hayward, NHLI
Dr Mitla-Maria Garcia-Maya, Cell and Molecular Biology
Mr Michael Gellman, Electrical and Electronic Engineering
Mr Peter Gilks, EPHPC
Mr Kevin Goddard, Physics
Ms Sally Graves, NHLI
Miss Miriam Grossmanova, Business School
Ms Rosemary Hadfield, Investigative Science
Miss Emily Hardy, College Headquarters
Ms Sally Hargreaves, Investigative Science
Dr Vivienne Harris, Strategy and Planning (5 years)
Dr Stephen Hart, Investigative Science (5 years)
Mr Daniel Hesse, Mechanical Engineering
Dr Robert Iliffe, CHOSTM (11 years)
Dr Adam Jacques, NHLI
Miss Stacey Jamieson, SORA
Miss Caroline Jones, Physics
Mr Alec Kennedy, ICT
Dr Martin Klussmann, Chemistry
Miss Ciaty Kreutzfeld, Catering Services
Mr John Latigo, Institute of Biomedical Engineering
Dr Adrian Leach, CEP (5 years)
Ms Deborah Lee, Library Services
Mr Peixiang Liu, EEE
Dr Igor Liubarsky, Physics (9 years)
Miss Isabel Llorente Garcia, Physics
Dr David Loong, Chemistry
Dr Balakrishnan Mahesh, NHLI
Miss Laura Mason, Registry
Mrs Julie McKinley, Estates
Dr Giovanni Melina, NHLI (7 years)
Mrs Sandra Bancroft Mendonca, Neurosciences and Mental Health
Mr Oliver Miller, NHLI

Dr Aarthi Mohan, SORA
Dr Michael Musoke, Chemical Engineering
Ms Amanda Nercessian, NHLI (6 years)
Dr Bernadette Neve, Medicine
Mr Paul Newton, Catering Services (6 years)
Dr Mark Nieuwenhuijsen, EPHPC (10 years)
Dr Karariina Nykyri, Physics
Dr Duncan O'Dell, Physics
Dr Wieslawa Olszewska, NHLI (6 years)
Dr Mark O'Neill, NHLI
Ms Sofia Panagiotidi, Computing
Dr Michael Parsons, Medicine
Miss Pauline Paul, Faculty of Medicine (16 years)
Dr Adam Payne, Biology
Dr Andrew Peplow, Mathematics
Dr Frank Pijpers, Physics
Dr Toke Reichstein, Business School
Mr Leslie Ridgwell, Estates (5 years)
Mr Alan Roberts, Civil and Environmental Engineering (27 years)
Miss Madeleine Ryder, Faculty of Medicine
Mr Asif Saleem, Computing (5 years)
Ms Natasha Sandmeier, Mechanical Engineering
Mr Kean Schupke, Electrical and Electronic Engineering (12 years)
Dr Marie-Laure Segond, Civil and Environmental Engineering
Professor Graham Sewell, Business School
Dr Aleksandra Siwicka, Chemistry
Dr Cinzia Stella, SORA
Miss Emily Stevenson, Kennedy Institute
Dr Namrata Syngal, Business School
Dr Bhavna Tanna-Topan, NHLI (10 years)
Dr Alan Taylor, Chemistry (12 years)
Mr Rasheed Tijani, Finance
Dr Mark Tyrer, Materials (8 years)
Mr Remko van Duren, NHLI (6 years)
Ms Ruth Walters, Molecular Biosciences (5 years)
Mr Gerald Wenig, Cell and Molecular Biology
Professor Alan Williams, NHLI (30 years)
Dr Katie-Jane Wynne, Investigative Science
Dr Aaron Wynveen, Chemistry
Ms Faranak Yadolli, SORA
Mr Jose Navarro Zambrano, Faculty of Medicine
Dr Yanjun Zhang, Medicine

retirements

Mrs Claire Cooper, Faculty of Medicine
Mr Colin MacKenzie, Management Audit and Review (10 years)
Mr William Mason, Sport and Leisure Services (26 years)
Mrs Glynis Musselwhite, Faculty of Medicine (19 years)
Mr David Slade, Estates (23 years)
Mr Tom Tarango, Estates (20 years)
Mr David Thompson, Management Audit and Review (17 years)

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This data is supplied by HR and covers the period 3 December to 6 January. It was correct at the time of going to press. Years of service are given where an individual has been a member of College staff for over five years. Asterisk (*) indicates where an individual will continue to play an active role in College life.

moving in. moving on.

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Please send your images and/or brief comments about new starters, leavers and retirees to the Editor, a.platt@imperial.ac.uk who reserves the right to edit or amend these as necessary.

what's on

17 JANUARY 2007, 17.30–18.30

Adventures in the Genome Jungle

Professor William O.C. Cookson, Professor of Respiratory Genetics, NHLI,

PROFESSORIAL LECTURE

» Paul Wood Lecture Theatre, Guy Scadding Building, NHLI, Dovehouse Street, SW3 6LY

17 JANUARY–2 FEBRUARY 2007, 9.00–17.00

Droppings

Paintings from current Royal College of Art Students

» Blythe Gallery, Sherfield Building

22 JANUARY 2007, 17.30–18.30

The Credit Spread Puzzle

Professor William Perraudin, Tanaka Business School

INAUGURAL LECTURE

» Tanaka Lower Ground Lecture Theatre

24 JANUARY 2007, 19.00–20.00

Invisible Cloaks and a Perfect Spyglass

Professor Sir John Pendry

FRIENDS OF IMPERIAL COLLEGE SPECIAL LECTURE

» Lecture Theatre G16, Sir Alexander Fleming Building

24 JANUARY 2007, 14.00–16.30

Imperial as One Student Forum — marketing yourself creatively

Forum for BME students

» Tanaka Lower Ground Lecture Theatre

30 JANUARY 2007, 18.00–19.00

Centenary Launch Lecture

Rector, Sir Richard Sykes,

» Great Hall, Sherfield Building

7 FEBRUARY 2007, 17.30–18.30

What is Algebraic Geometry?

Professor Alessio Corti

INAUGURAL LECTURE

» Clore Lecture Theatre

8 FEBRUARY 2007, 17.30–18.30

A Nation at Ease with Diversity?

Trevor Phillips

DIVERSITY LECTURE

» Lecture Theatre G16, Sir Alexander Fleming Building

» All events are at the South Kensington Campus unless otherwise stated.

take note

Conference Office move

The College's South Kensington Conference Office, including the Conference Office's Internal Booking Office, has moved and is now located at 48 Prince's Gardens. All telephone and fax extensions and email addresses remain the same.

» Visit www.imperial.ac.uk/cateringandconferences for full details of catering, conference and reception services.

Members of the College wishing to book accommodation for residential conferences in person should report to the Conference Office's Vacation Accommodation Office, Accommodation Link, at 46 Prince's Gardens. Again all telephone, fax and email addresses for this office remain and individuals are still able to book accommodation online at www.imperial-accommodationlink.com.



Charity begins at work

Gale Lewis, PA to Professor Desmond Johnston, in the Department of Endocrinology and Metabolic Medicine, is in training to run the Mumbai Marathon in India at the end of this month. Gale has chosen to run for a charity called the Pavement Club that looks after the street children who gather around the main railway terminus in the city.

» Visit www.pavementschoolmumbai.org/new_page_15.htm for more information. Please email Gale at g.e.lewis@imperial.ac.uk for details of how to sponsor her.

» Are you doing something for charity this year? From running the London Marathon to shaving your head for sponsorship, let Reporter know by contacting the Editor at a.platt@imperial.ac.uk for a feature coming soon.

volunteering

This week's urgent project...

Ship Restoration: engine and boiler room systems

Project ID: 1861

For SS Robin

Time(s): Weekday mornings

Location: London E14 (nearest tube Canary Wharf)

Volunteers needed to produce a schematic drawing of the engine and boiler room showing all pipes and valves. The archive contains drawings of the physical layout but not schematics of their purpose. SS Robin is thought to be the last surviving steam powered coaster in the world. She was built in London in 1890 and is therefore 23 years older than the Titanic and still afloat! A general information session about SS Robin will take place on 23 January, 17.00-18.00. Email volunteering@imperial.ac.uk to book a place.

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

» Visit www.imperial.ac.uk/volunteering for full details of over 250 volunteering opportunities. You can also subscribe to the weekly newsletter by emailing volunteering@imperial.ac.uk.

Reporter is published every three weeks during term time in print and online at www.imperial.ac.uk/reporter.

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