The perfect fit

Alex Platt Editor

IT’S hard to find a sporting activity that isn’t available at Ethos, Imperial’s new sports centre, which opened this week.

The Centre, at Prince’s Gardens on the South Kensington Campus, includes a fully fitted state-of-the-art gym, a sports hall complete with a climbing wall and 25-metre swimming pool. The facilities are available to staff, students, and the local public, after an initial personal induction, between the hours of 7.00–22.00 on weekdays and 8.00–20.00 at weekends.

The majority of Imperial’s sports teams will now play their matches at the centre. This is fantastic news for team members who currently travel to various locations around London. Ethos will be running a five-a-side football league and a basketball league initially, open to all College students and staff.

Neil Mosley, Head of Sport, said: “We added a centre as a way of improving the academic brilliance of staff and students by continued on page two...”

Prize for improving animal welfare

Saskia Daniel Communications

An imperial researcher’s innovative approach to refining medical research on animals has been awarded the first annual Replacement, Refinement and Reduction (3Rs) Prize.

Dr Sivaraeni Wiles, Natural Sciences, discovered that if mice used in research were allowed to infect each other naturally with the bacterium E. coli, this not only improved the welfare of the animals, it also reduced the number of animals needed through greater rates of infection than with previous tech-

New biophysics chair

Tony Stephenson Communications

A NEW Chair in Biophysics has been created in memory of Professor David Blow, the ‘founding father of biophysics’ at Imperial College London.

Professor David Blow made his name through significant advances in protein crystallography. The conversion of proteins into three-dimensional crystals allows their atomic structure to be studied. Examination indicates the function of the protein, enabling the development of more effective drugs and medical treatments.

Professor So Inwa, formerly Professor of Membrane Protein Crystallography has been appointed to the new Chair, and he will build on David Blow’s considerable research record in protein crystallography.

David Blow joined Imperial in 1977, becoming Professor of Biophysics and later Head of the Department of Physics until 1994. He continued his association with Imperial as a Senior Research Fellow until 2004, the year he died.

David Blow graduated in physics from Cambridge in 1954 and, while looking for an excuse to carry on research, heard about an Austrian scientist called Max Perutz. Perutz, who later received the Nobel Prize for Chemistry, was heading a Medical Research Council unit for the molecular study of biological systems, and Blow became his research student.

He began his research career by learning to purify and crystallise horse, pig, rabbit and dog haemoglobin, the oxygen carrier in the blood. Then he went on to develop a new method for data analysis, published with Francis Crick. This led to the foundations of protein crystallography, which has been used to study many protein structures since.

In 1977, when looking for a new challenge, Blow joined Imperial, becoming the first Professor of Biophysics and, according to Professor Sir Peter Knight, Principal of the Faculty of Natural Sciences, “the father of biophysics at Imperial.”

“Professor Paul Freeman, who worked with him to coordinate structural biology activities across Imperial, remembers him being a ‘protein crystallographer of supreme ability.”

Professor Knight recalls Professor Blow’s “terrific research vision” and also his extremely warm heart. He donated the royalties from a book he had written to fund a new studentship.

Professor Nick Franks, who was appointed to his first post by Professor Blow, added: “Structural biology in general, and protein crystallography in particular, has played a pivotal role in the development of molecular biology over the past 40 years.

David was one of the pioneers in this field, and those who had the privilege of working with him knew him as a man of complete integrity, scrupulous fairness, and good natured warmth. It is entirely appropriate that David should be honoured with this Chair.”

IN BRIEF

Doctor of the Decade award

Professor Peter Barnes has been named at the ‘Doctor of the Decade’ by being named the most highly cited clinical scientist outside the USA, according to Science Watch.

Professor Barnes is a leading expert on asthma, and has done most of the work to understand the role of chronic inflammatory in asthma and the importance of early treatment in labelled asthma. He has also, more recently, conducted research into chronic obstructive pulmonary disease (COPD).

One of his major achievements has been to establish the molecular basis for the anti-inflammatory effects of corticosteroids. It has given important insights into the inflammatory mechanisms of asthma, and explains why corticosteroids are not effective in patients with COPD and other atopic-resistant diseases.

Takana in top 50

Takana Business School continues in the Financial Times’ MBA rankings according to the latest edition published on 30 January. For the first time, the School has broken into the world’s top 50 and is again ranked number one for entrepreneurship in Europe. Professor David Beeg, the School’s principal, said he is delighted with the results, not only for placing in the top half of the table, but also because the accolade has risen 33 places in the last 3 years.

Professor Stefan Symmanski, Director of the full-time MBA programme, added that it is the first time the School has entered the rankings and is the result of significant improvements to the School’s academic product, bearing fruit, “As well as the influx of a substantial number of new faculty, we have redesigned our programme material to focus even more sharply on the career needs of our students.”

New Graduate School Director

Professor Bernad Morley, Professor of Molecular Genetics, has been appointed to succeed Professor Mary Ritter as Director of the Graduate School for Life Sciences and Medicine (GSLM). Professor Morley joined Imperial in 1991 from Oxford to research the genetics of the auto-immune disease systemic lupus erythematosus. He has represented the Division of Medicine on the Management Committee of the CCLM since its inception in 2000 and has chaired its Academic Training Committee since 2003. Professor Ritter is now Provost for Postgraduate and International Affairs.

Academic Opportunities report

The Academic Opportunities Commission (AOC) has published its 2005 annual report. Established to create a level playing field for women across academia at Imperial, the AOC’s work is in alignment with the aims of the Athena Project: to promote the careers of women in science, engineering and technology, and increase the number of women recruited to top academic positions. Imperial is one of 50 universities working in partnership with Athena. Copies of the report are available from Christine Yates at c.yates@imperial.ac.uk.
Political science

Dr Phil Bland chats with Jacqui Lait, MP for Beckenham

Dr Phil Bland Earth Science and Engineering

Last November, Dr Phil Bland, a Principal Research Fellow in the Department of Earth Science and Engineering, spent a few days with Conservative MP Jacqui Lait on an MP writing course. Here, Phil writes about his experiences.

"FROM 14–17 November last year, I joined 24 other scientists, spending a week at Westminster ‘shadowing’ MPs to gain first-hand experience of how parliament deals with science issues. The scheme was organised by the Royal Society and has been running since 2001. I’m a Royal Society Research Fellow so I heard about it early, but any young scientist can apply.

My MP was Jacqui Lait, MP for Beckenham and shadow minister for London. She’s a very genuine and engaging person. I got a chance to see what her job as an MP involves, as well as spending some time chatting about science and politics, which was a lot of fun. During the week we got a look at how science policy gets formulated; chatted to MPs from different ends of the political spectrum; and sat in on science select committees—it was a fascinating experience, and tremendously useful.

Highpoints were time spent talking to Jacqui about a range of topics, and attending Prime Minister’s questions. I also enjoyed just spending time with the other scientists on the course, people from a whole range of backgrounds, and discovering what we have in common. It’s a curious thing in modern academia, but you so rarely have a chance to talk to other scientists from outside your own field.

Westminster was not what I expected at all. In Prime Minister’s questions, it’s obviously business, but it’s clear that they have a lot of fun batting stuff around—something that doesn’t come over on the TV. However, the biggest surprise was talking to Jacqui and other MPs. We live in rather cynical times, and it’s common for the media to present our politicians in a less than flattering light. It was a real pleasure to meet people with very different politics to myself, and discover that they’re real people, that they care deeply about our country, and that they want to make things better.

Jacqui visited Imperial on Monday 23 January when she joined us for an informal lunch, chatted with staff in the Department, and had coffee with PhD students. The final day of the scheme was Wednesday 25 January, when all those who took part visited the Royal Society to compare notes on our experience.”

Visit www.royalsoc.ac.uk for more information about the MP-scientist pairing scheme.

New sports centre open...continued from page one

offering the ideal way to relax. The centre offers enough variety to tempt anyone to come and have a go, even if it’s just to relax in the spa pool or enjoy a ‘spa capsule’ water massage.

One of the best aspects of the centre is its gym, which Neil describes as ‘one of the most exciting in London.’ Each of the fitness machines comes complete with an integrated television including sky channels and the option of using ‘Fitlight’, a programme that monitors your progress as you move from one machine to another. With four step machines, 10 cross trainers, 12 treadmills, 12 bikes and six rowing machines there is plenty of capacity available.

Neil explained: ‘The gym is fantastic. This is all top-end technology, coupled with top-end staff to support you. Having an exercise programme is extremely motivational and the beautiful views over Prince’s Gardens are the perfect background to a workout’.

If the gym isn’t your thing, there are plenty of classes on offer including aerobics, pilates and yoga in the centre’s studio, which is complete with a fully sprung floor and mirrored walls.

If your New Year’s resolutions haven’t quite taken off yet, or if you are just feeling the need to live up the winter days, really is something for everyone at Ehoos.

Visit www.imperial.ac.uk/ports for more information or to join one of Ehoos’ sports leagues.

-continued from page one

Archive corner

Anne Barrett Archives and Corporate Records

THE Queen’s Tower has a number of interesting features, amongst them its bells. Built to mark Queen Victoria’s Golden Jubilee in 1887, the tower is all that remains of Imperial College’s forbear, the Imperial Institute, which was established by Royal Charter for the purpose of carrying out research into the resources and raw materials of the Empire.

The Imperial Institute was designed by T.E. Collcutt in the neo-Renaissance style. The belfry contains the Alexandra pew of bells, consisting of 10 bells named after the then Princess of Wales. The bells were a gift to the Prince of Wales from Mrs Elizabeth M. Millar of Melbourne, Australia, in 1872. Each bell is separately named after members of the royal family—Queen Victoria, her three sons, her daughter-in-law, Alexandra, and her five Wales grandchildren.

For those of you who have always wondered what the ringing of the bells signifies, they are rung on royal anniversaries and domestic occasions, such as Commemoration Day. Dates on which the bells will be rung in 2006 are:

The Queen’s accession 6 February
The Queen’s birthday 21 April
Postgraduate awards ceremony 31 May
The Queen’s coronation 2 June
The Duke of Edinburgh’s birthday 10 June
The Princess Royal’s birthday 15 August
Commemoration Day 25 October
The Prince of Wales’ birthday 14 November
The Queen’s wedding day 20 November

50 not out

Alex Platt, Editor

JOHN O’Leary is retiring this month, after almost exactly 50 years service at the College. His time at Imperial started on 2 January 1956 in the Department of Aeronautics, where he took the position of junior technician.

He said: “I was only 15 and had just left school. I took the job to tide me over as I was fairly sure I would be called up to military service in the very near future. As it happened, I wasn’t and I guess that accounts for at least some of why I’m still here!”

John, still a member of the technical staff in the Department now, lived in the area and could “literally fall out of bed and into work.” He wanted a job that was close to home and could develop his budding interest in research. The role’s incredibly varied workload also appealed to him. He explained: “You never know what you’ll be doing from day to day in this job. Back when I first started, we spent a year moving from Prince Consort Road to the current location on Exhibition Road. I had to do anything I was asked that came under the remit of technical. This could range from shifting furniture to painting wind tunnels.”

After a year at the College, John took on the added responsibility of becoming the departmental photographer. He explained: “Photography had always been a hobby of mine, so when the opportunity to combine it with work came along it was great. It’s a very challenging aspect of my work: 1 photograph wind tunnel research work and structural testing as well as documenting student projects.”

In addition to his day job, John has been a part-time police officer for 23 years. He was the only special officer ever to have received a CBE. The award recognised his services in maintaining peace on the streets of south London. He said of the honour: “I received a letter from John Major asking if I’d like to accept the award, I couldn’t believe that they had to ask! It just left me with the problem of choosing who to take with me to the palace, as you are only permitted to take three guests and I have a wife and four children!”

In light of this experience as a special, John has spent many years working towards the increased security of the Department. This included offering female staff self-defence classes, which were extremely well received for several years.

Obviously the College has changed dramatically during the 50 years John has worked here. He said: “The biggest change is no doubt how the College looks. So much of it has been rebuilt. Although I had a lot of fondness for some of the old buildings, they could be very cold and draughty.”

The future for John is an exciting and busy one. He explained: “Of course I’m going to miss the College tremendously. It’s been a huge part of my life for such a long time. I am, however, waiting for final confirmation of my role as a magistrate, something which I’d be very enthusiastic to take on. And I might even do a degree in history. I’ve never had time before.”
Imperial entrepreneurs in top 100

Laure Gallagher Communications

Six imperial academics were included in a recent list of the UK’s top 100 science entre-preneurs in The Times Higher Educational Supplement, five from the Faculty of Engineer-ing. Reporter asked some of them about the challenges of moving into the commercial world and what tips they had for Imperial’s budding entrepreneurs.

PROFESSORS Nigel Brandon and John Kilner co-founded Ceres Power with fellow Imperial Professor Alan Atkinson, Chair in Materials Chemistry in the Department of Ma-terials, and the late Brian Steele. They formed the company to allow them to scale up their technology and move to product development. It raised £16.5 million when it was floated on the London Stock Exchange’s Alternative Investment Market in November 2004. Ceres Power develops unique fuel cell products ranging from the off-grid electricity generators, through auxiliary power units for cars and trucks, to small scale combined heat and power units for residential or light commercial use. Fuel cells produce energy by combining fuel and an oxidant and have the potential to provide an environmentally friendly power source.

Professor Nigel Brandon, Shell Chair in Sustain-able Development in Energy, Department of Earth Science and Engineering, said: “I have been delighted at the speed of progress, both in technical and commercial terms.

What are the challenges of combining academic work with spin-off activity? The biggest challenge is one of time management. I was Chief Executive Officer from 2001–03 and am now Chief Technical Officer, all while holding down a full-time academic position in terms of both teaching and research. Both the academic and com-mercial activities require strategic thinking and technical insight, they differ only in focusing on different ends of the product development chain.

What is the best thing about being an entrepreneur? Being able to put your ideas into practice.

Why do you think it is Important that university researchers commercialise their work? I was, and still am, driven by the desire to see my work make a difference. In my case, this meant producing clean energy efficiently, using power sources that are widely used. For this to be the case, they must be commercially suc-cessful. Therefore, for me, there is a clear link between my research and commercial work.

What tips would you offer aspiring university entrepreneurs? I would encourage everyone to have a go, but they must be prepared for lots of hard work. One of the biggest challenges is to think how your ideas could be commercially exploited, and I would encourage people to approach Imperial Innovations to help with this. In our case, we were put in touch with Philip Helbock, an experienced financier and entrepreneur, and he played a critical role in helping us launch Ceres Power success-fully, and he is now Chairman.

Professor John Kilner, Professor of Materials Science, Department of Materials

How surprised have you been by the success of Ceres Power? I think that we have not been surprised that the company has succeeded; the technology is understood by many years of research. You have to be confident that you are going to succeed or you would never embark upon launching a company with the extra workload that it represents. What has surprised me is how quickly things can happen when you put together a dedicated team of engineers to develop the technology.

What are the challenges of combining academic work with spin-off activity? Time management is an enormous problem. At the time we were forming Ceres Power, I was Head of Department in Materials and I had very little extra time available. If I had been forming a company on my own, I don’t think I would have managed. Fortunately, we were a team of four academics and were able to share the work. The commercial activity has a very different focus from the academic but are still challenging and provide a very important framework for the pure research.

What is the best thing about being an entrepreneur? My work has always had a bias towards appli-cations. Being able to take that one step further and to develop devices, such as fuel cells, based on over twenty years of research is very rewarding. I also have the satisfaction of knowing that the company will provide interesting and rewarding employment for engineering graduates in the U.K. It is also working towards devices that could help reduce greenhouse gas emissions and for me this is, perhaps, the most rewarding aspect.

Spin-out goes from strength to strength

Judith Bandy InforSense

IMPERIAL College spin-out InforSense has begun 2006 on a high. Its flagship integrative analytics platform, InforSense® KDE, is now successfully providing enterprise decision support information for companies across a wide ranging portfolio of scientific, technologi-cal R&D & to healthcare, and sales/marketing to financial services. In December 2005, InforSense announced a global deal with its third top 10 pharmaceutical customer—As-traZeneca. AstraZeneca had been using InforSense® KDE since 2001 and, following a number of successful pilots, expanded to a global licensing agreement that provides ac-

cess to the InforSense® KDE platform across R&D organisation for integrative biology, chemistry and text mining applications. But InforSense growth is not just limited to the life sciences sector, having added 17 new cus-tomers in a variety of business sectors during the first nine months of their financial year.

InforSense integrative analytics technology, originally part of the EPSRC e-Sci-ence programme and developed during the DiscoveryNet pilot project, puts the control-
data analysis into the hands of the scientist or business analyst, without having to worry about IT integration or data or software tools. The company’s latest product releases, scheduled for the first quarter of 2006, underscore its commitment to supporting a wide range of users across global enterprises. Enhance-
ments provide scientists and business analysts with expanded support for personalised data manipulation and reporting; informaticians, and analytical workflow builders can more easily define and deploy tailored interactive applications to address specific business and user needs; and administrators can better sup-
port diverse user populations and applications across large and distributed enterprises.

Founded by Professor Yike Guo, Depart-ment of Computing and chief scientist of the London e-Science Centre at Imperial, Infor-

MENA MENTIONS

Abigail Smith Communications

Comet close to planetary origins

Scientists are celebrating after a capsule carrying dust collected from the tail of comet Wild 2 landed safely on them from the Genge, Earth Science and Engineering, who will be one of the first British scientists to receive dust samples, tells The Daily Telegraph (16.01.06). “This thousand of a gramme of dust from Wild 2 will probably tell us more about the formation of the solar system and the chemistry of some of these objects. It’s a great time to be in dust.”

Chip off the old block

With the British love affair with the crisp getting no signs of losing its passion, The Guardian (11.01.06) analyses the luxury end of the market. Its taste test of the classier crisp was aided by Erich Muller, Chemical Engineering and Chemical Technology, who has an interest in molecular gastronomy, along with chefs and food critics. Of those sampled, Dr Muller’s favourite crisps are Walkers Sensations sea salt and cracked black pepper, but he is less impressed by Goddard Wonder’s Golden Light sea salt. “The taste is meaningless, more like salted cardboard,” he says. “Probably one of the healthy ones, which is why taste has been sacrificed.

Stay in bed until spring

We are currently suffering the greyest Janu-
ary for a decade, Met Office figures show, and this may be why we are having trouble on the surface, Paul Robinson, Aeronautics, says: “You would be able to detect a dent by cya in a metal structure, but in a composite there may be no dent.”

Down with detox

Detox products may not be the antidote to too much Christmas cheer that many consumers seem to believe, according to scientists, who argue that the body is extremely efficient at breaking down harmful chemicals like alcohol without extra help. “The body’s own detoxification systems are remarkably sophisti-catred and versatile,” Alan Boobis, Medi-
cine, tells the Press Association (03.01.06). “It is remarkable that people are prepared to risk seriously disrupting these systems with unproven detox diets, which could well do more harm than good.”
Anthony Kucznak is Linstead Hall's Warden. Each hall has a warden in place to help new students cope with the change of lifestyle that starting university brings and they offer continuing support throughout their time at Imperial. Like the majority of wardens, Anthony is one of Imperial's young academics who lives in the hall with his wife and two year old daughter. He said: "Combining my day job as a Reader in physical chemistry with my role as warden can be hectic. I wake up at 6-30 every morning thanks to my darling daughter and could be called on all through the night, if needed be. It's a role I find hugely rewarding though, otherwise I wouldn't have stuck with it!"

Reporter's Alex Platt went to meet him to find out about a night in his working life.

18.30
"This is the time I put my warden's hat on and leave behind the issues of the day," said Anthony. His evening starts with a meeting while Linstead Hall residents gather for their evening meal. It is one of the College's catered halls and Anthony often takes this opportunity to have an informal chat with the rest of his wardening team, the assistant warden and his three sub-wardens.

19.00
Wardens are on duty one night a week and one weekend in five. As it is Anthony's duty night he heads back to the hall to open the small café. The café is run by the students, but it is Anthony's responsibility to release the float and ensure everything is running smoothly.

19.30
Anthony leads a hall meeting, which is a chance for students or members of the wardening team to raise any issues they may have. On the agenda tonight is feedback on the rebuilding of the hall's kitchen. Anthony has been attending regular meetings about this issue and is keen to keep the students informed because Linstead is located next to the building site and he feels he can be a champion for the students. He is there to answer any questions they may have and I take the responsibility of getting answers very seriously. I am effectively their voice."

21.00
Wardening team meeting. Tonight the meeting covers some catering issues that need to be resolved. The team is a close one. Anthony explained: "When you're living with people, it's a very different relationship. The sort of things we have to deal with can be severe and taxing. We all have to support each other in to maintain a strong team."

23.30
The café closes and Anthony heads down to cash up and ensure the students have left the place tidy.

00.00
Time for Anthony to have one last walk around the halls to ensure that everything is under control.

00.15
Anthony heads to bed.

3.00
The hall is awoken by a fire alarm and Anthony must get up to ensure the hall is evacuated and everyone accounted for. This time the alarm has been caused by the cooking efforts of some students who have returned from a night out rather the worse for wear. He said: "There are all sorts of things you have to be aware of in this job. You may have to deal with anything from outbreaks of meningitis to sensitive issues relating to drug or alcohol problems. You may also have to discipline students on occasion, which is very hard. It's all in all, you can't just see this as a job, or it would be hell! You have to see it as part of your life."

3.15
It's back to bed for Anthony, finally having completed his night on call.

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Step out to work out
Douglas Mason Occupational Health Service

AFTER consuming too much food and drink over the festive period, there is no doubt that one of the top New Year resolutions is to get more exercise. However, most resolutions tend to be quickly forgotten. Now, thanks to the new Ethos Sports Centre, you can get a free personal trainer to help you maintain yourself.

A personal trainer measures the distance you walk every day and provides feedback for goal setting, self-monitoring and motivation to help you become more active.

The use of personal trainers is being promoted by the Occupational Health Service as part of a SportImperial initiative to increase the number of steps you take in a day.

We recommend that you engage in 30 minutes of moderately intense physical activity, five days per week. Walking is an inexpensive and flexible form of exercise that can help meet this target. It carries a low risk of injury, burns calories and helps to tone muscles; a great way to get fit and stay healthy.

Not only are there great health benefits to be had from regular exercise, like reducing the risk of heart disease, but you will also look and feel better too.

Current recommendations are 10,000 steps per day as an appropriate exercise target. This can easily be measured using the belt-worn pedometers available to members of Imperial College staff, free of charge, from SportImperial.

Start by wearing your pedometer every day and record your daily steps for the week. Calculate your daily average. If it is lower than 10,000, try increasing it by five to 10 per cent each week until you reach the target.

Go to www.imperial.ac.uk/ports/develop/ethos.asp for more information and tips on how to increase your number of steps.

Contact a.gore@imperial.ac.uk or the Occupational Health Service to get your free pedometer.

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Spotlight on Spectrum
Did you know about KnowUK?

Saskia Daniel Communications

THE Imperial College London Library subscribes to KnowUK, a comprehensive online reference service, which can be accessed by members of the College via Athens/UA or IP address.

What does it provide?
With over 100 reference publications on its database, KnowUK is a comprehensive library of UK information that can be used as a source for general research, to support teaching or for research. Many reference sources are not available elsewhere online and are updated more frequently than the equivalent print copy.

To illustrate the breadth and depth of information available in KnowUK, here's a simple of the information available in each of the 15 categories:

• Arts and media—Willis's Press Guide to Biographies—Who's Who, Who's Who in Education and Who was Who
• Courses and careers—Course Discover

Education—The Good Schools Guide
Events—The Year Ahead
General knowledge—Whitaker's Almanack
Government—The Municipal Yearbook and The Civil Service Yearbook
Grants and Funding—The Educational Grants Directory
Law—The Law Society Directory of Solicitors

Recent additions include:
• Foresight—over 5,000 events taking place in the UK
• House of Commons Biographies
• Informa Database of Primary Care—key contacts in the frontline of healthcare
• Writers' and Artists' Yearbook

See www.knowuk.co.uk for full details of its service or visit www.imperial.ac.uk/librarydigital/library/knowuk for more sources of information available through the Library.