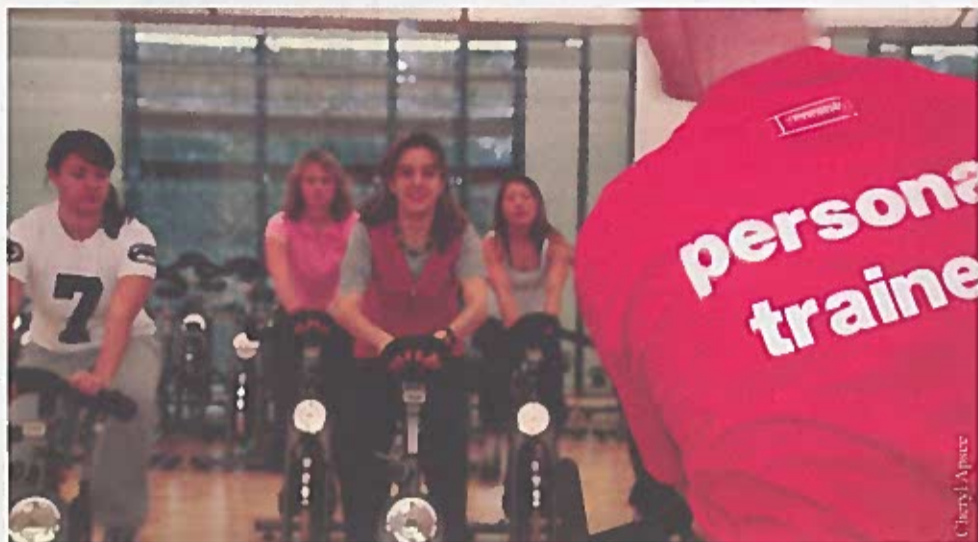


Reporter

Issue 161
1 FEBRUARY 2006



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 students and staff, 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 see the centre as a way of supporting 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 Siouxsie 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-

niques. Traditionally, every mouse is infected via a tube passed into its stomach. In Dr Wiles' approach, only one mouse is infected in this way and nature takes its course when the mouse is placed in the company of uninfected mice.

A better understanding of how *E. coli* infects the body is badly needed. Outbreaks of the infection can be fatal and meat contaminated with the organism was recently responsible for the deaths of children in Wales and France.

The GlaxoSmithKline-sponsored prize

worth £10,000 was awarded to Dr Wiles by Lord Sainsbury, Parliamentary Under-Secretary of State for Science and Innovation. Its aim is to highlight the importance of the principles of refinement, replacement and reduction to both the public and other scientists.

"Encouragingly, it is possible that this technique could be applied with equal success in other laboratories and with other types of disease research" said Dr Vicky Robinson, Chief Executive of the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs). "The end result can benefit both the animals used and the quality of the science produced."

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

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 Iwata, 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 exciting area of 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 Freemont, 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 student scholarship.

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 as a *Doctor of the Decade*, by being the most highly cited clinical academic outside the USA, according to *Science Watch*.



Professor Barnes is a leading expert on asthma, and was one of the first to recognise the role of chronic inflammation in asthma and the importance of early treatment with inhaled steroids. He has also, more recently, conducted research into chronic obstructive pulmonary disease (COPD).

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

Tanaka in top 50

Tanaka Business School continues its rise 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 Begg, 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 school has risen 30 places in the last 3 years.

Professor Stefan Szymanski, Director of the full-time MBA programme, added that it was gratifying to see improvements to the School's academic products 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 Bernard Morley, Professor of Molecular Genetics, has been appointed to succeed Professor Mary Ritter as Director of the Graduate School for Life Sciences and Medicine (GSLSM). 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 GSLSM since its inception in 2000 and has chaired its Academic Training Committee since 2003. Professor Ritter is now Pro Rector for Postgraduate and International Affairs.

Academic Opportunities report

The Academic Opportunities Committee (AOC) has published its 2005 annual report. Established to create a level playing field for women academics 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 60 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-scientist pairing scheme. 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 is 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 scheme, 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."

① 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 *Fitlinxx*, 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.

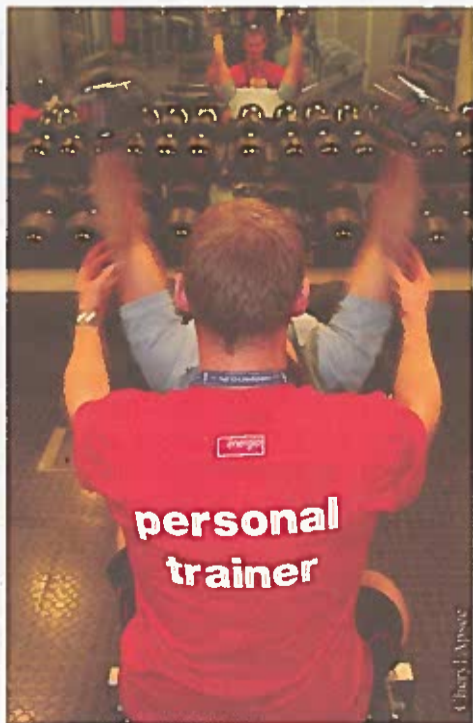
Neil explained: "The gym is fantastic. This is all top-end technology, coupled with top-end staff to support you. Having an exercise programme is extremely motivational and the beautiful views over Prince's Gardens are the perfect background to a workout".

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 liven up the winter days, there really is something for everyone at *Ethos*.

① Visit www.imperial.ac.uk/sports for more information or to join one of *Ethos*' sports leagues.



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 forebear, 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 peal 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 1892. Each



The bells in the Queen's Tower, pictured in 1966



Ringling the bells in the Queen's Tower, June 1981

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

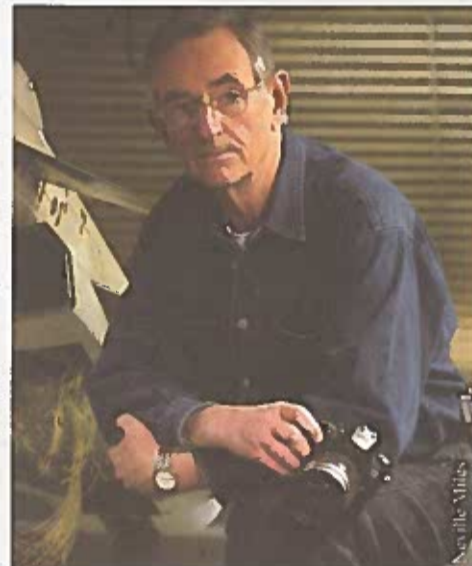
JOHN O'Leary is retiring this month, after almost exactly 50 years service at the College. His time at Imperial started on 2 January 1956 in the Department of Aeronautics, where he took the position of junior technician.

He said: "I was only 15 and had just left school. I took the job to bide my time as I was fairly sure I would be called up to military service in the very near future. As it happens, 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. I 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 special police officer for 23 years. He was the only special officer ever to have received an MBE. 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 prob-



John O'Leary

lem 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 his 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

Laura Gallagher Communications

Six Imperial academics were included in a recent list of the UK's top 100 science entrepreneurs in *The Times Higher Educational Supplement*, five from the Faculty of Engineering. *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 Professors Alan Atkinson, Chair in Materials Chemistry in the Department of Materials, 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 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 Sustainable Development in Energy, Department of Earth Science and Engineering

How surprised have you been by the success of Ceres Power?

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 commercial 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 means producing clean and energy efficient power sources that are widely used. For this to be the case, they must be commercially successful. Therefore, for me, there is a clear link between my academic 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



Professor Nigel Brandon

approach Imperial Innovations to help with this. In our case, we were put in touch with Philip Holbeche, an experienced financier and entrepreneur, and he played a critical role in helping us launch Ceres Power successfully, 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 underpinned by many years of basic 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 is necessary. What has surprised me is how quickly things can happen when you put together a dedicated team of engineers to develop a 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 activities have a very different focus from the academic but are still challenging and provide a very important framework for the pure research activities.

What is the best thing about being an entrepreneur?

My work has always had a bias towards applications. 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 UK. It is also working towards devices that could help reduce greenhouse gas emissions and for me this is, perhaps, the most rewarding aspect.



Professor John Kilner

Why do you think it is important that university researchers commercialise their work?

There are many reasons. Firstly, I think that in a very competitive global market the UK should capitalise on its excellence in science and technology. We complain about the 'invented here, developed elsewhere' syndrome but I think that the solution to this problem lies in our own hands.

I also think it is important that senior academics should be seen as role models for the junior staff. A successful spin-out shows younger staff that there are other routes to achievement other than the purely academic. Finally, I think it provides a good role model for the students. In Materials, we ensure that our students take an entrepreneurship course and they use Ceres Power as a case study. Knowing the people involved adds a further interest.

Also listed in the top 100

- Professor Alan Atkinson (see above)
- Emeritus Professor Colin Besant and Dr Mihailo Ristic, Department of Mechanical Engineering, co-founders of Turbo Genset
- Professor Donal Bradley, Head of the Department of Physics, co-founder of Cambridge Display Technology

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 informatics for companies across a wide variety of industries from pharmaceutical 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—AstraZeneca. AstraZeneca had been using InforSense® KDE since 2001 and, following a number of successful pilots, expanded to a global licensing agreement that provides ac-

InforSense

The Integrative Analytics Company

cess to the InforSense® KDE platform across its 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 customers 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-Science programme and developed during the *DiscoveryNet* pilot project, puts the control

of data analysis into the hands of the scientist or business analyst, without having to worry about IT integration of data or software tools. The company's latest product releases, scheduled for the first quarter of 2006, underline its commitment to supporting a wide range of users across global enterprises. Enhancements 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 support diverse user populations and applications across large and distributed enterprises.

Founded by Professor Yike Guo, Department of Computing and chief scientist of the London e-Science Centre at Imperial, InforSense is rapidly becoming the leading provider

for workflow-based intelligence delivery across enterprises in many industries. With new product releases and a rapidly growing user base, 2006 looks like a very exciting year for the company.

Visit www.inforsense.com for further information.



MEDIA MENTIONS

Abigail Smith Communications

Comet clue to planetary origins

Scientists are celebrating after a capsule carrying dust collected from the tail of comet Wild 2 landed safely in Utah. Matt Genge, Earth Science and Engineering, who will be one of the first British scientists to receive dust to analyse, tells *The Daily Telegraph* (16.01.06): "This thousandth of a gramme of dust from Wild 2 will probably tell us more about the formation of the solar system than the past 100 years of telescope observations of these objects. It's a great time to be into dust."

Chip off the old block

With the British love affair with the crisp

showing no sign 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, alongside 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 Golden Wonder's Golden Lights 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 January for a decade, Met Office figures show, and this may be why we are having trouble

getting out of bed. Commenting on the 'energising effect' of light, Russell Foster, Neurosciences and Mental Health, tells *The Daily Telegraph* (13.01.06): "Even people who don't have full-blown Seasonal Affective Disorder can find it hard to get up, because there is no 'dawn signal' to start the body clock cycle."

Safety fears over 'plastic' planes

Plans by Boeing to build the first passenger jet with fuselage and wings made from plastic and carbon fibre composites rather than aluminium has raised some safety concerns, reports *The Times* (07.01.06). Opponents of the plan fear that composites can hide damage that can spread under the surface. Commenting that layers of composite material could become separated without any visible change

on the surface, Paul Robinson, Aeronautics, says: "You would be able to detect a dent by eye 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 sophisticated and versatile," Alan Boobis, Medicine, 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."

A night in the life of...

Anthony Kucernak 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 through out 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 needs 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.



Anthony Kucernak

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 Southside halls. 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. He explained: "I see myself as a champion for the students. I am 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. 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.

Working towards good health

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 pedometer to help keep yourself motivated.

A pedometer 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 pedometers 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/sports/development/everydaysport.htm for more information and tips on how to increase your number of steps.

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

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 AthensDA 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 information, to fact check, 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 sample of the information available in each of the 15 categories:

- Arts and media—*Willing's Press Guide*
- 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*
- Health and Welfare—*The Welfare Benefits Guide*
- 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/library/digitallibrary/weblinks for more sources of information available through the Library.

What's on... What's on... What's on...

Monday 13 February 17.30
Huxley Lecture *New advances in understanding asthma and its treatment* Professor Stephen Holgate.
Glenister Lecture Theatre, Charing Cross Campus.
Email meh.james@imperial.ac.uk to attend.

14-27 February
Current Royal College of Art sculpture students group exhibition: Hannah Brown, Clara Collings and Katrina Palmer. *Between space and place*
Blyth Gallery, Sherfield Building, South Kensington Campus.

Wednesday 15 February 12.30
Women of Imperial College London Lunch. Guest speaker Professor Dot

Griffiths, Deputy Director, Tanaka Business School
170 Queen's Gate, South Kensington Campus.
Email c.enright@imperial.ac.uk for ticket information.

Wednesday 15 February 19.30
Rugby Varsity J.P.R. Williams Cup—Imperial College Medicals v. Imperial College Union
Richmond Athletic Association Ground, Kew Foot Road.
Visit <http://www.ic.ac.uk/sports/news/varsity.htm> for ticket information.

Friday 17 February 16.00
Seminar: *The combination of ecological and individual level data*
Professor Jon Wakefield, University

of Washington. Clinical Lecture Theatre, Cambridge Wing, St Mary's Campus.
Email c.robertson@imperial.ac.uk to attend.

Lunch time concerts 13.00
Read Lecture Theatre, South Kensington Campus
Thursday 9 February Brahms *Piano Quartet in A Op26*. Touchwood.
Thursday 16 February J.S. Bach *Organ Trio Sonata in G BWV525*, C.P.E. Bach *Duetto in E minor*. Telemann *Sonata for cello and continuo*; *Paris Quartet in E minor*. Florilegium.

Thursday 23 February A programme of Britten Folk Songs and Mahler Rückert Lieder. Damian Thantrey (baritone) and Peter Hewitt (piano).

Noticeboard

The Imperial College Arts Festival will take place on 6-10 February. With some 20 societies and over 500 performers and artists, this year's festival is a hothouse of artistic talent waiting to be unlocked.

All events are free, with the exception of the Finale Concert (£3 students, £6 non-students, including free entry to the Union for the Arts Fest afterparty). Tickets will be on sale in Sherfield every lunchtime throughout the week and from any society in the Finale Concert.

Visit www.union.ic.ac.uk/artsfest for more details.

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