

Reporter

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Imperial does the double

Abigail Smith Communications



Dr Diana Shaul receives her medal for her work testing Einstein's Theory of General Relativity

MEDALS recognising outstanding contributions to space science have been awarded to two physicists at Imperial.

The Zeldovich Medal, conferred by the Russian Academy of Sciences, is awarded to planetary physicist Marina Galand and astrophysics physicist Diana Shaul. The medals will be presented at the Committee on Space Research (COSPAR) Scientific Assembly in Beijing, which take place from 16-23 July 2006.

Welcoming this double achievement, Sir Peter Knight, Principal of the Faculty of Natural Sciences said: "This is fantastic news and I'm delighted to be able to congratulate both Diana and Marina. It is particularly significant that this has been achieved by two young women in what has traditionally been seen as a very male environment. I think this speaks volumes about the strides Imperial has taken to create a supportive atmosphere for female academics."

The two winners are each recognised for their achievements in different areas of space science. Dr Shaul is currently working on part of the LISA (Laser Interferometer Space Antenna) project, which aims to test Einstein's Theory of General Relativity. She explained:

"Einstein posited that a moving mass produces ripples in the fabric of space-time and it is these ripples, known as gravitational waves, that LISA hopes to detect. My research is related to eliminating noise caused by cosmic ray and solar particles that might confuse LISA's search. The project is hugely exciting since it has the potential to open a

new window on the astrophysical events that shape our universe."

Dr Shaul says she was taken by surprise at receiving the prestigious award. "Now that the news has settled in, I'm absolutely thrilled. My work forms part of a collaboration and I'm grateful to the first class international team I work with and also my Imperial astrophysics colleagues for their continued support," she adds.

Imperial's second winner Marina Galand receives the award for her research on the effect energy sources, such as solar radiation, have on the atmosphere of planets and moons. She is currently investigating the properties of Saturn's moon Titan using observations made by NASA's Cassini spacecraft, which is now orbiting Saturn. She said:

"I'm very honoured to have been nominated for the award. At this stage of my career, the medal represents a strong encouragement for continuing my research, and I'm grateful to all those who have encouraged and advised me over the years."

The Zeldovich Medal, named in memory



Dr Marina Galand's work on energy sources has been rewarded by the Zeldovich medal

of astrophysicist Yakov B. Zeldovich, is awarded to up to eight scientists every two years by the Russian Academy of Sciences and the Committee on Space Research. It aims to promote the work of scientists under 36, who are judged to have made an outstanding contribution to space science.

Previous winners of the medal at Imperial include Elizabeth Lucek of the Space and Atmospheric Physics group in 2004 and Michele Dougherty, now Professor of Space Physics, in 1996.



Catherine Fison, Tanaka Business School, is given expert advice on jewellery making

And now for something completely different

Alex Platt Editor

EVER fancied popping away from work for a spot of relaxing Tai Chi when things get a bit too stressful? Or maybe you've always fancied a go at salsa dancing?

These were just two of the many activities on offer on Learning at Work Day last month, with College staff also having the chance to attend taster sessions of several different languages, tackle the *Ethos*' climbing wall and take part in historic walks around the South Kensington area, amongst other things.

The purpose of the day is to offer people at work the opportunity to learn something new or develop an area of skill or knowledge that is completely different from their normal job.

Judy Barnett, manager of the Staff Development Unit said: "It is a national event, with hundreds of organisations participating and this is the fourth year that we have arranged events to celebrate the day here at Imperial." Each year the range and number of events on offer has grown.

continued on page three...

A matter of principal

Laura Gallagher Communications



Dame Julia Higgins will take up the post of Principal of the Faculty of Engineering in October 2006

PROFESSOR Dame Julia Higgins has been announced as the next Principal of the Faculty of Engineering.

Dame Julia is currently Professor of Polymer Science in the Department of Chemical Engineering and Chemical Technology and Director of the Graduate School of Engineering and Physical Sciences. She will take up the post of Principal at the beginning of the new academic year in October 2006.

Welcoming her, the Rector said of her appointment: "She is not only a leader in her own field, for which she has been recognised through Fellowships of the Royal Society and the Royal Academy of Engineering, she is also a passionate advocate of science and engineering in general and for the raised profile of women in these disciplines in particular."

Professor King will take up the post of



Professor Julia King is leaving Imperial to become Vice Chancellor of Aston University

Vice Chancellor at Aston University. Thanking her for her contribution to the College since joining as Faculty Principal in 2004, which in the last year alone has seen the launch of the *EnVision* project and the *Energy Futures Lab*, Sir Richard added:

"The Faculty has benefited greatly from her experience and enthusiasm; and I am sure her abilities will serve Aston well."

IN BRIEF

Altered estate

David Brooks Wilson has been appointed as College Property Advisor with immediate effect. He will advise the Rector on strategic property matters and, in particular, take responsibility for the Wye Project and the delivery of current large construction projects, such as Southside and Burlington Danes. He will be a member of the Portfolio Review Board and the Property Advisory Committee.



Galen Medal

Emeritus Professor of Rheumatology, Sir Ravinder Maini, has been awarded the Galen Medal, presented annually by the Society of Apothecaries. Previous recipients include two Nobel Prize winners, Professor Sir Peter Mansfield and César Milstein.



Leaning tower saviour



Emeritus Professor John Burland, CBE, has won the Royal Academy of Engineering's 2006 Public Promotion of Engineering Medal in recognition of his work generating interest in engineering amongst the public and the media. Professor Burland, who helped prevent the Leaning Tower of Pisa from toppling over, received his medal last week. He was also involved in the extension of London Underground's Jubilee line, ensuring that the Houses of Parliament and Big Ben were unharmed by the tunnelling taking place beneath them.

What a good IDEA

The IDEA League summer school is still taking bookings for the *Biotechnology and Bioengineering Applications in Medicine* programme taking place 17-22 September 2006 in Monte Verita, Switzerland.

For further information and registration visit <http://summerschool.idealeague.ch>



Meet and eat at 58

Looking for somewhere welcoming, elegant and friendly on campus to entertain guests, colleagues or friends? Then give the *Garden Room* restaurant a try. Located on the ground floor of 58 Princes Gate, the restaurant is open to all members of Imperial, Monday to Friday from 08.30-17.30. Lunches are served from 12.00 until 14.00 with a main course and a drink costing between £10.00-13.00 per person. In addition to dining, the venue is suitable for meetings and presentations, offering three meeting rooms capable of holding between 18-36 people, with full audio-visual kit available on request. It can be also used for pre-booked functions and dinners during the evenings. Drop in, call +44 (0)20 7594 0892 or email Maria Grigsby at m.grigsby@imperial.ac.uk for details.





Making their day

Over 1,300 students, their assorted family and friends, some 40,000 canapés, and almost 2,000 bottles of sparkling wine, made this year's Postgraduate Awards Ceremony on 31 May a resounding success. The Rector welcomed graduates before they crossed the stage of the Royal Albert Hall, saying: "It is you we are here to honour and it is your celebration we are joining. There can be few occasions when this much talent, this many minds with so much potential come together in one place."

Just dropping in

Alex Platt Editor

IS it a bird? Is it a plane? Is it a giant washing machine? No, it's a new Philips MRI scanner being delivered through the roof to the Hammersmith Hospital Neonatal Intensive Care Unit last month. This new state-of-the-art scanner upgrades an original prototype neonatal MRI system, and remains the only dedicated neonatal unit MRI in the world. The new scanner will be at the centre

of research in neonatal medicine and imaging science. The first project for the new scanner is an MRC-funded study of drugs to prevent brain damage in preterm infants.

Professor of Neonatal Medicine and Consultant Neonatologist David Edwards said: "This is an example of teamwork at its best. Professor [Jo] Hajnal's team in the Imaging Sciences Department has produced a fantastic research opportunity for newborn infants, as well as an invaluable clinical tool. The doctors and nurses on the neonatal unit are looking forward to using it to improve the outlook for newborn babies everywhere".



Protecting patient privacy

Tony Stephenson Communications

RESEARCHERS at Imperial argue that a system of telephone passwords could be used to protect patient confidentiality.

Writing in the *British Journal of General Practice*, they believe a password system could be used to protect the confidentiality of patients, stopping any inadvertent disclosure of confidential patient information, particularly for certain groups such as teenagers, celebrities or those suffering from sexually transmitted diseases.

Daniel Sokol, an ethicist from the College, and one of the authors, said: "Many patients currently use the telephone to obtain test results and other medical information from their GPs. However the current system is open to abuse, as it is possible for non-authorised patients to take advantage of the system to access confidential information."

The researchers outline an optional system in which patients would be given a password, which a receptionist could check before directing them to the GP. Patients could give the password to friends and relatives to authorise access to their personal information.

Currently GPs and receptionists may have to spend several minutes confirming the identity of callers, but this new system would eliminate the need for detective work and allow staff to share information immediately. They also believe providing information over the phone could reduce the number of GP appointments, and ultimately, the waiting time for patients.



Archive corner

Anne Barrett Archives and Corporate Records

58 Prince's Gate

NUMBER 58 Prince's Gate, which has recently been refurbished and opened by Imperial as an elegant conference and dining centre, is one of a large number of houses built in the nineteenth century in South Kensington by Charles James Freake.

Freake's houses were aimed at the market that grew up in Victorian London following the success of the Great Exhibition of 1851. At one time, he had the rights to Exhibition Road and could have placed a gate at the north end, although it seems this was never carried out.

As is the case with so many large houses, its fortunes, or those of its owners, changed over the years. In 1957, the University of London purchased the freehold from Freake's descendants and for almost the next half century it was leased for various uses, including as a diplomatic residence and by an American institution, Huron University. Imperial bought the freehold in 1997 and finally took possession of the building in 2004.

The house's first occupier, between 1873 and about 1890, was William Cunliffe Pickersgill, a Justice of the Peace. An H.A. Campbell took it from 1890-1900 and the next occupier, George Alexander Lockett, a



One of the elegant wood panelled first floor rooms in the newly refurbished 58 Prince's Gate

nitrate millionaire, was responsible for updating the house, particularly the ground and first floor rooms, along Edwardian lines.

The house remains a handsome example of Victorian design, however, with an impressive pillared entrance hall and curving staircase. Some rooms have been panelled in wood, whilst others are decorated with ornate plaster mouldings with fireplaces of marble. The exterior is in the Italianate stucco style, stucco (a mixture of sand, lime and water) being a form of rendering used frequently in the nineteenth century, and is in keeping with other houses in Exhibition Road.

See this edition's *In Brief* on the front page for details of 58's new *Garden Room* restaurant.

New Chair in energy materials

Laura Gallagher Communications

A NEW Chair in energy materials is being created at Imperial College London in memory of fuel cell pioneer Professor Brian Steele.

Professor Steele, who worked in the Department of Materials at Imperial for 37 years, was instrumental in the development of solid oxide fuel cells. He was also a founding member of spin-out company Ceres Power, which is commercialising fuel cell technology.

The new Chair, which will be the first named Chair in the Department of Materials, has been made possible thanks to a generous donation to the Department from Professor Steele's family. The College is now looking for a high profile, internationally-leading researcher to take up the post in October.

The Chair acknowledges Professor Steele's work on fuel cells, which convert fuels such as natural gas or hydrogen into energy by combining them with an oxidant. Where the cells are fuelled by hydrogen, the only products are energy and water, so they have the potential to provide an efficient and environmentally friendly power source. Solid oxide fuel cells, which work at high temperatures, are particularly suited for stationary applications such as providing heat and power for buildings.

Professor Bill Lee, Head of the Department of Materials, said: "This is a really fitting tribute to Professor Steele and his work. Brian Steele was one of the early champions of solid oxide fuel cells and one of the few people in Europe to continue research in this area in the late 80s and early 90s. His work laid the foundations for the current worldwide growth in solid oxide fuel cell research and commercialisation. We're pleased to have the opportunity to bring someone into the Department to work in energy materials, which is an important area of great current interest."

Professor Steele came to Imperial College

in 1957 as a Nuffield investigator, undertaking postgraduate study in solid electrolytes. He joined the academic staff in 1965 after being awarded a doctorate for his work on galvanic cells for thermodynamic studies. He became Professor of Materials Science in 1981 and stayed in the Department of Materials until his retirement in 1994. Professor Steele died in 2003 aged 74.

"This Chair is a very appropriate way to honour Brian and his pioneering work", said Professor of Materials Science, John Kilner, who worked with Professor Steele from 1978 onwards. "Brian was considered to be one of the founding fathers of the field of solid state ionics, an essential element of the study of materials for energy applications for devices such as batteries and fuel cells.

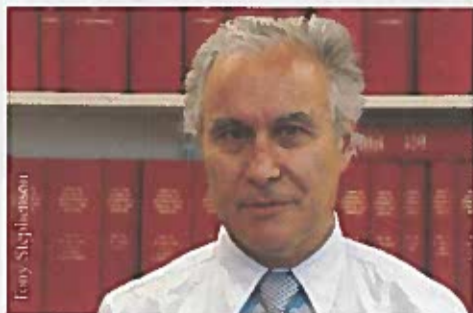
"He was also a great champion of materials science and started the first undergraduate course in the College, going on to inspire a generation of students in this new subject. For his efforts to promote the subject nationally, he was awarded the MBE in 1996", added Professor Kilner.



Professor Brian Steele, in whose memory a new Chair in energy materials has been created

A change of head for Heart and Lung

As Imperial welcomes Professor Tony Newman Taylor as new Head of the NHLI, it says goodbye to Professor Malcolm Green, who retired at the end of March. **Tony Stephenson**, Communications, went to meet Professor Newman Taylor, while *Reporter's Alex Platt* talked to Professor Green about his career, plans for retirement and choice of tie.



Professor Tony Newman Taylor

ANTHONY Newman Taylor took over as Head of the National Heart and Lung Institute (NHLI) at Imperial College London on 1 April 2006, succeeding Professor Malcolm Green whom he describes as a "hard act to follow".

Professor Newman Taylor, 62, began his career as consultant physician at the Royal Brompton Hospital in 1973 and built the largest clinical and research department in Europe, investigating the occupational and environmental causes of lung disease, particularly asthma.

Describing the opportunity to lead NHLI as a "great privilege to take over such a successful and highly respected institution with a fantastic reputation to build on," Professor Newman Taylor added: "Imperial provides extraordinary opportunities for multidisciplinary research."

He believes the College can further strengthen the link between basic and translational research, ultimately improving patient care. He cited the development of CT imaging and MRI as examples involving

physicists, computer scientists and clinicians, which have led to major improvements for patients through better diagnosis. Demonstrating patient benefit is becoming increasingly important with funders who are keen to see scientific advances of relevance to, and translated into, improved patient care.

He believes that research needs to travel from "bench to bed" and back again to enable basic scientists both to provide research for the improvement of patient care and to address clinicians' problems.

Professor Green retires

Malcolm Green began his career at Oxford University followed by St Thomas' Medical School. He was appointed consultant physician in 1975 at St Bartholomew's and Royal Brompton Hospitals and continued at RBH until retirement, with academic secondments including Dean of the NHLI, Head of the British Postgraduate Medical Federation,

and a spell as Head of R&D for the NHS. Throughout his career, he has led a research group focusing on respiratory physiology and respiratory muscle function in health and when affected by disease.

On the creation of the Imperial College School of Medicine in 1997, Professor Green was appointed Vice Principal for Postgraduate Medicine and Campus Dean at St Mary's. In what he describes as "challenging times", he saw the pre-clinical school move to South Kensington, leaving St Mary's "bereft". His determination led to major refurbishment of the buildings and academic facilities at St Mary's, driven by his strategic focus on creating a world class research centre for infection and immunity.

Appointed Head of the NHLI in 2001, Professor Green coordinated its research strategies across six campuses, consolidating the financial position of the division, which has grown to the size of a small university with 55 professors, 500 members of staff and an annual turnover of nearly £30 million. He describes the biggest tasks as: "Getting people to work together across Imperial to maximise the benefits of this incredibly scientifically rich College, while protecting scientists from the ever flowing tide of academic bureaucracy and regulation."

Throughout his career, Professor Green has become well known at the College for his distinctive choice of tie featuring the red balloons of the British Lung Foundation logo. As founder of the charity in 1985, Chairman of 10 years, then President, he explained: "I do have more than one of the ties. The balloon



Professor Malcolm Green

is the logo of the Foundation and its outline makes "O₂", which is of course essential to life! I've worn a tie with this design since it was created in 1985."

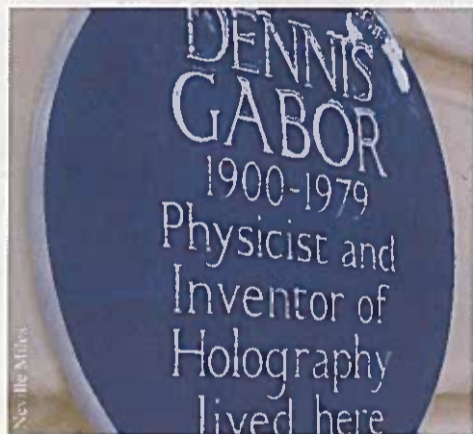
Despite missing the "stimulus and excitement of developing and implementing academic strategy and all the wonderful colleagues" he has worked with over the years, Professor Green sees his retirement as a chance for new activities and adventures. He said: "I am discovering a whole new world out there. I'm enjoying having time to pursue my passions for travel, sailing and skiing, and my family. It's refreshing to have the space to take advantage of so many opportunities, but I shall be staying in touch with the medical and academic worlds as well."

Finally, when asked what advice he would give Professor Newman Taylor, Professor Green's only recommendation is to 'enjoy'. "Medical research is in a very exciting phase and there will be some amazing outcomes over the next ten years. Where better to be involved than in the most stimulating and exciting scientific organisation in the country?" he said.

Blue plaque for Imperial Nobel Laureate

Abigail Smith Communications

A RENOWNED scientist who received the Nobel Prize for his invention of the hologram has been recognised with the unveiling of an English Heritage blue plaque in South Kensington.



A blue plaque now adorns 79 Queen's Gate in recognition of former Imperial Professor of Electron Physics, Dennis Gabor

Dennis Gabor, a former Professor of Electron Physics at Imperial, lived at 79 Queen's Gate between 1949 and 1961 while teaching and researching at the College.

He was awarded the Nobel Prize in Physics in 1971 for his invention and development of the holographic method, which allows both light and sound waves to be recorded and recreated in three dimensions. This technology is now used for a variety of purposes, from incorporation into credit cards as an anti-counterfeiting device to recreating fragile Iron Age artefacts for archaeologists to study.

The unveiling ceremony included speeches by Engineering's Julia King and former Rector Sir Eric Ash. Also attending were members of Professor Gabor's family, including Janet Kitchen, his niece by marriage, who recalled the time she and her husband David spent with 'Uncle Dennis'.

"He built a villa in Italy with his Nobel Prize money and his favourite form of relaxation there, apart from visits to the beach, was table tennis, which he would play with his guests on the terrace each evening before dinner," she said.

Learning at work day

continued from page one



Fran Bucknall, Tanaka Business School, left, learns the art of Indian dancing from dance teacher, Alison Beadle

Catherine Fison, Careers Coordinator at Tanaka Business School, and Sheena McDonagh, Residences, took some time out of work to have a go at jewellery making. Catherine said: "I would really like to encourage people who haven't signed up this time to have a go at something next year. It's a great chance to try something new for an hour instead of sitting at your desk and it opens so many opportunities to share with staff and friends."

Alison Beadle, a freelance dance trainer, was at South Kensington Campus to give Indian dance and salsa sessions. She said: "My whole ethos is to get people away from their working environment. Exercise is a great way to burn calories and shed stress. Dancing is so creative and a great way to express yourself, as well as something you can fit into a lunch break." Fran Bucknall, who works in the Centre for Quantitative Finance at Tanaka Business School, agreed. She spent some time trying out Indian dancing and said: "The class was great. This is something I would never have tried without today and now I'll be sure to try it again."



Media mentions

Laura Gallagher Communications

Tories turn to the left – but only for drivers

The Conservative party is proposing to allow drivers to turn left at red lights in order to speed up traffic and cut pollution, reported *Reuters* (02.06.06). The idea is borrowed from America where in certain circumstances the red light is treated as a 'stop' sign. Conservative spokesman John Redwood denied that this, and other Tory proposals such as widening junctions, would mean that pedestrians and cyclists would lose out. However, Professor of Transport Risk Management

Andrew Evans, Civil and Environmental Engineering, took a different view: "I think more generally it would make the environment for pedestrians a lot less friendly than it is now," he said.

Chemistry – a risky business?

Stepping into the road might be less risky than stepping into the chemistry lab after the death of a French professor in a laboratory explosion in March served as a reminder of how dangerous research can be. *Nature* (01.06.06) asked whether chemistry was particularly hazardous compared to other disciplines. Imperial's Director of Safety Ian Gillett told the journal that although chemistry does generate the most accident reports, that may reveal little about its inherent dangers. Chemistry involves more practical work

than other disciplines, chemists may be more vigilant about accidents than others, and in any case it is impossible to gauge how many minor disasters go unreported.

Big Brother in big bother

Big Brother is back on our screens and contestants already find themselves in an unhappy house. Following the early exit of contestant Shahbaz Chaudhry, who threatened to kill himself if he was not allowed to leave, doctors have expressed concern about the welfare of all the BB housemates. Among them is medical ethicist Daniel Sokol, *Medicine*, who told *BBC News Online* (24.05.06): "Quite early on he went to the diary room and said he wanted to leave, but Big Brother said 'no'. That doesn't seem very ethical to me. Had Shahbaz been able to leave at the

first opportunity, he wouldn't have been on suicide watch."

Running on brain power

Universities are the foundation of the knowledge economy and provide the ideas that will ensure the UK can compete on the world stage, according to Rector, Sir Richard Sykes. "The best universities bring together those who think freely, challenge the accepted, deeply understand existing knowledge and think 'until the brain hurts' about creating ideas. With this resource, properly utilised, at its fingertips, the UK cannot fail to prosper," he wrote in *The Daily Telegraph* (26.05.06). "We are working on the answers to tomorrow's problems, not just today's, and that is what will ultimately keep us a step ahead of the game."

