Teaching aids

Undergraduate students get hands on at a real construction site

NEW BEAT
Luke Blair on leading Comms and Public Affairs
PAGE 10

COSMIC NEWS
Giant space blobs and a directionless universe
PAGES 6 & 7

STAR PLAYER
Chris Toumazou marks milestone in innovative style
PAGES 2 & 14
Degrees of separation

A new centre at Imperial launched this month aiming to develop new technologies for reducing the energy cost of separation processes in industry.

Led by a team of chemical engineering academics at Imperial, the Barrer Centre will provide a focus for breakthrough research in separation technology.

Separation processes consume about 40 per cent of energy used in the refining and petrochemical industries. Current techniques often use costly separation processes such as distillation and evaporation which now account for 10 to 15 percent of the world’s annual energy use.

Using membranes for the separation of gases and chemicals provides an alternative, more efficient, non-thermal solution which has the potential to reduce energy consumption significantly, as well as reducing pollution and cutting carbon dioxide emissions. Industrial applications include water recovery, environmental protection, food technology and biomedical devices.

Diagnostic start-up secures major US contract

A device that uses DNA analysis to quickly detect flu and drug-resistant bugs has attracted multi-million dollar funding from a US agency.

The device, known as Genalysis®, is being developed by Imperial start-up company DNA Electronics (DNAe), which is based at the White City Campus. It has been awarded a contract worth up to $51.9 million from the Biomedical Advanced Research and Development Authority (BARDA).

The collaboration will see DNAe working with BARDA to further develop Genalysis®, so that hospitals in the US can rapidly detect the early signs of drug-resistant bugs and influenza in patients to make treatments quick, personalised and more effective.

Professor Nick Jennings, Vice Provost (Research) at Imperial, said: “Research excellence is at the heart of our academic mission at Imperial. Uniquely this Centre will bring together world-leading research capabilities, an innovative, interdisciplinary approach and new opportunities for lasting industrial partnerships.”

Professor Andrew Livingston (see page 11), who will be the Barrer Centre’s inaugural Director, said: “A key aim of the Centre is to stimulate, develop and deliver high quality research in all aspects of membrane and adsorption science and technology, ranging from the nanoscale to the macro-scale. Our aim is to elevate the Barrer Centre to international pre-eminence in the field of separation science and materials”.

The Centre is named in honour of the late Richard Barrer, a former Head of the Department of Chemistry, who is credited with breakthrough research in polymer membranes. He lends his name to the 'Barrer', the unit of gas permeability which is still used today.

— ANGELA LONERGAN, MICHAEL PANAGOPULOS, DEPARTMENT OF CHEMICAL ENGINEERING
Maintaining excellence

Imperial has renewed its Athena SWAN silver status in recognition of its ongoing support for women in science.

The institution-wide award, originally granted in April 2012, recognises Imperial’s successful development of employment practices that further and support the careers of women in science, technology, engineering, maths and medicine.

In renewing its status, Imperial was required to demonstrate evidence that it had delivered on promises made in the original submission as well as developing new plans and initiatives.

Indeed, Imperial is the first university to renew its silver status under new criteria, which now includes gender equality in arts, humanities, social sciences, business and law departments (AHSSBL).

Imperial’s Provost, Professor James Stirling, paid tribute to College staff across all departments and in the Human Resources Division who worked hard on the renewal submission.

He said: “At Imperial, we know that attracting, developing, promoting and retaining the very best female staff is key to our remaining one of the world’s great universities. This is why we are committed to removing barriers and ensuring gender equality at all levels across the College. Athena Swan plays an important part in this.”

“The renewal of our existing silver award is by no means a formality; that we have managed to do this is a tremendous achievement, and reflects very positively on the progress we are making on gender equality and staff support.”

In addition to the College’s institution-wide award, Imperial College Business School was for the first time awarded a Bronze Athena SWAN Award, among the first university business schools to receive the award.

Stephen Hawking wows Imperial

Last week, Cambridge physicist Professor Stephen Hawking told a packed audience at Imperial that black holes are not as dark and destructive as we think.

Joining Professor Hawking at the special event were five of his former students, who are now all professors in the Department of Physics at Imperial – Jerome Gauntlett, Chris Hull, Jonathan Halliwell, Fay Dowker and Toby Wiseman.

Professor Hawking said earlier in the day: “I am very pleased to be here today to give this public lecture. Over the years I have developed close connections with the Theoretical Physics Group at Imperial, whose members have made important advances in our understanding of fundamental physics.

“Looking forward, Imperial continues to be one of the world’s leading centres for research in theoretical physics, string theory, cosmology,

and quantum gravity, and the College should be very proud. I am confident that the Theoretical Physics Group, including five former members of my own Relativity Group in Cambridge, will continue the great tradition of fundamental physics research at Imperial.”

Following his talk on the nature of black holes, Professor Hawking answered questions from the audience, including whether artificial intelligence could ever take over.

Professor Jerome Gauntlett, Head of the Theoretical Physics Group at Imperial said of the event: “It was an honour and a privilege to host Stephen Hawking at Imperial.

“The campus was buzzing with excitement before his brilliant and inspirational lecture in the Great Hall, where the atmosphere was electric. It was a wonderful celebration of theoretical physics and an extraordinary event!”

—HAYLEY DUNNING, COMMUNICATIONS AND PUBLIC AFFAIRS

Commemoration day 2016

More than 2,200 undergraduate students in front of some 6,800 guests took to the stage in the Royal Albert Hall to receive their degrees last week. For the first time the ceremonies were streamed live allowing family and friends around the world to join in with students’ celebrations.

Congratulations graduands, Professor Alice Gast says: “Imperial is a European university and, in fact, a global university. You have learned from academics who may have been born in one country, educated in another, and who collaborate globally in their research. You have shared classes and made lasting friendships with students from all over the world. The major problems facing the world extend beyond national borders and demand global cooperation and collaboration. I urge you to maintain your global outlook in your careers and personal life.”

Fintech future

Industry leaders, entrepreneurs and academics gathered this month to discuss the latest trends in financial technology at the Business School’s Fintech Conference 2016. The event was held in celebration of Imperial’s new Centre for Global Finance and Technology, which was launched with initial support from Citi.

Researchers at the Centre aim to improve our understanding of the impact of technology on finance, business and society.

“ I took my grandson to the Fringe, a really fantastic evening for both of us, we learnt a huge amount and can’t wait for the next event. Thanks to James Romero [Advancement] for his help and all the enthusiastic, knowledgeable and child-friendly students.”

IMPERIAL VISITOR SUE THORNTON COMMENTS ON IMPERIAL’S WATER-THEMED FRINGE EVENT EARLIER THIS MONTH
Pushing boundaries in teaching and research

Imperial’s new £1 million Excellence Funds aim to promote courageous and innovative ideas in research and teaching.

First announced in the President’s Address in March 2016, the new Excellence Funds will provide funding for staff to pursue the new and the risky, with £500k each allocated for the Excellence Fund for Learning and Teaching Innovation and the Excellence Fund for Frontier Research. Professor Simone Buitendijk, Vice-Provost (Education), will oversee the teaching fund. The first year of the scheme will focus on supporting innovation in the use of technology enhanced learning and innovation in assessment and feedback.

Professor Buitendijk said: “My priority is to bring academic rigour to our own teaching, to ensure it is challenging, student-centred, and outward looking. It should equip our students with the qualities modern society demands: questioning and deep knowledge coupled with collaboration skills and an entrepreneurial mindset. This funding will give our excellent teachers the time and space to be bold, to test new methods, and to learn.”

Professor Nick Jennings, Vice-Provost (Research), who will oversee the research fund, said: “It will support individuals or research groups who are moving into new or underdeveloped research areas, or examining a well-established research area. It should equip our students with the qualities modern society demands: questioning and deep knowledge coupled with collaboration skills and an entrepreneurial mindset. This funding will give our excellent teachers the time and space to be bold, to test new methods, and to learn.”

Professor Buitendijk said: “My priority is to bring academic rigour to our own teaching, to ensure it is challenging, student-centred, and outward looking. It should equip our students with the qualities modern society demands: questioning and deep knowledge coupled with collaboration skills and an entrepreneurial mindset. This funding will give our excellent teachers the time and space to be bold, to test new methods, and to learn.”

—ELIZABETH NIXON, COMMUNICATIONS AND PUBLIC AFFAIRS

Broadening Perspectives

A new pilot project has been launched in the Faculty of Engineering to deliver unconscious bias training to new undergraduate students.

The training, delivered last week with the Departments of Earth Sciences and Engineering and, Electrical and Electronic Engineering, has been introduced to better prepare students for the issues around bias as they develop their careers during and after their studies.

Unconscious bias is the result of a person’s brain making an incredibly quick judgement or assessment of people and situations without them realising it. These biases are influenced by a person’s background, cultural environment and personal experiences, often without a person being aware of their impact or implications.

Su Nandy, Senior Human Resources Manager for the Faculty of Engineering said: “With many of our students going into start-up organisations, often during their studies, and taking on leadership roles much quicker than before it’s important to bring issues like unconscious bias to their attention. “Hopefully by exploring these issues early on in their academic careers we can both better enhance the student experience here in the faculty and prepare them to become better managers and leaders in the future.”

Second year student Roxana Radu, who took part in the session said: “It opens your eyes to bias around you. Even though we’re not yet in a workplace I think it can be relevant to students who can be naive and easily influenced by others.

“I don’t think you can change a person completely but the session means if I was to face one of those biases it would be easier to recognise it and act appropriately.”

Further sessions for students from the Departments of Mechanical Engineering and Computing will take place later this academic year.

—JON NARCROSS, COMMUNICATIONS AND PUBLIC AFFAIRS

Working balance

Imperial has been recognised as one of Britain’s most family friendly workplaces.

The College is the only Russell Group institution and one of only four other universities to place in the top 30 in the Employers for Working Families ranking, which is based on benchmarking survey data from the charity Working Families. The survey, undertaken earlier this year, assessed all aspects of the College’s workplace flexibility and how it supports the work-life balance of staff.

Louise Lindsay, Director of Human Resources, said: “I am delighted by the award and how it further emphasises the College’s continued commitment to building a supportive and inclusive staff community.”

The survey data was compiled by Suzanne Christopher, Senior HR Manager (Staff Engagement) and Su Nandy, Senior HR Manager (Faculty of Engineering), who also picked up the award earlier this week at the National Work Life Week Conference, organised by Working Families.

Suzanne commented: “Being recognised in the Top 30 is a huge achievement and places Imperial firmly on the map as a workplace that supports its staff in having a healthy work life balance”.

—MATTHEW JOWETT, HUMAN RESOURCES
Keeping Britain’s doors open to talent

WALL STREET JOURNAL  •  07.10.2016

Writing in the Wall Street Journal, Imperial’s President, Professor Alice Gast sets out the challenges and opportunities of Brexit: “When the United Kingdom leaves the European Union, the country will regain control over its borders. But it’s how Britain manages that control, including the inflow of immigrants, that will set the scene for its business and entrepreneurial success. At Imperial, we value our thousands of international students, not least for their entrepreneurial spirit and vibrancy. Britain must not let Brexit be misinterpreted as a closing of the country’s doors. We must overcome this impression among bright entrepreneurial people, seize the opportunities and make the UK a destination for foreign talent.”

UK’s billions of takeaway cups could take 30 years to break down

THE GUARDIAN  •  05.10.2016

Coffee-addicted Britain is leaving a mountain of toxic waste for the next generation as scientists warn it could take decades for paper cups to decompose. While the paper can be recycled, the problem arises because recycling plants do not have the facility to remove the plastic lining which makes the cups impermeable. Speaking to The Guardian, Chris Cheeseman (Civil and Environmental Engineering), Professor of Materials Resources Engineering, says the polyethylene is resistant to degradation and could take around 30 years to break down. “Even then we don’t know for sure, because nobody has looked at the cup specifically,” added Cheeseman.

British scientists on brink of HIV cure

THE SUNDAY TIMES  •  02.10.2016

A British man with HIV hopes to become the first in the world to be cured of the disease by using a pioneering new therapy designed to eradicate the virus, The Sunday Times reports. The 44-year-old is the first of 50 people to complete a trial of the ambitious treatment – the result of an unprecedented collaboration between five top universities including Imperial. “This therapy is specifically designed to clear the body of all HIV viruses, including dormant ones,” said Professor Sarah Fidler (Medicine). “It has worked in the laboratory and there is good evidence it will work in humans too but we must stress we are still a long way from any actual therapy.”

Testosterone could help boost women’s libido

BBC NEWS  •  8.10.2016

Women suffering from a loss of sexual desire should be offered testosterone on the NHS, a doctor has suggested. Nick Panay, from the Royal College of Obstetricians and Gynaecologists, told a GPs’ conference that it could also improve women’s energy and mood. Commenting on the matter to BBC News, Dr Channa Jayasena (Medicine), Clinical Senior Lecturer in Endocrinology, said testosterone can be given to women in much lower doses than men. He said: “It’s mainly given in a patch. Women have both sex hormones – oestrogen but also testosterone – made by their adrenal glands and also the ovaries. It is a natural hormone but less is known about its effects.”

and resilience. Each year the EPSRC rewards outstanding individuals with a fellowship to establish themselves as a leader in the field. After coming to Imperial to complete a PhD in the Department of Life Sciences, Miao has been carrying out post-doctoral research in the Centre for Process Systems Engineering (CPSE) under the supervision of Professor Nilay Shah, focusing on UK bioenergy value chain design.

MEDICINE

Best of the best

James Best, Dean of LKCMedicine, has been appointed Officer of the Order of Australia in recognition of his service to medicine and medical education. The accolade, conferred as part of this year’s Birthday Honours, recognises individuals for their contributions to Australia or to wider humanity. The Lee Kong Chian School of Medicine in Singapore is a collaboration between Imperial and Nanyang Technological University. The School, which admitted its first students in 2013, aims to train doctors to meet Singapore’s future healthcare needs.

NATURAL SCIENCES

Particle prize

Two Imperial physicists have shared a prize for experimental physics for their work masterminding the CMS and ATLAS experiments. The W.K.H. Panofsky Prize in Experimental Particle Physics has been awarded to Professor Sir Tejinder (Jim) Virdee, and Dr Michel Della Negra (pictured, both Physics), as well as Dr Peter Jenni from CERN – “For distinguished leadership in the conception, design, and construction of the ATLAS and CMS detectors, which were instrumental in the discovery of the Higgs boson.”
Gene therapy potential for Alzheimer’s

Researchers have prevented the development of Alzheimer’s disease in mice by using a virus to deliver a specific gene into the brain – opening avenues for potential new treatments for the disease.

The team used a type of modified virus vector to deliver a gene called PGC1-alpha to brain cells. Previous studies in the lab have suggested that this gene may prevent the formation of a protein called amyloid-beta peptide. Amyloid-beta peptide is the main component of amyloid plaques, the sticky clumps of protein found in the brains of people with Alzheimer’s disease. These plaques are thought to trigger the death of brain cells.

Senior author of the research Dr Magdalena Sastre (Medicine) hopes the new findings may one day provide a method of preventing the disease, or halting it in the early stages.

She explained: “Although these findings are very early they suggest this gene therapy may have potential therapeutic use for patients. There are many hurdles to overcome, and at the moment the only way to deliver the gene is via an injection directly into the brain. However this proof of concept study shows this approach warrants further investigation.”

—Kate Wighton, Communications and Public Affairs

Scientists confirm the universe has no direction

The universe is not spinning or stretched in any particular direction, according to the most stringent test yet.

Looking out into the night sky, we see a clumpy universe: planets orbit stars in solar systems and stars are grouped into galaxies, which in turn form enormous galaxy clusters. But cosmologists assume this effect is only local: that if we look on sufficiently large scales, the universe is actually uniform.

The vast majority of calculations made about our universe start with this assumption: that the universe is broadly the same, whatever your position and in whichever direction you look.

If, however, the universe was stretching preferentially in one direction, or spinning about an axis in a similar way to the Earth rotating, this fundamental assumption, and all the calculations that hinge on it, would be wrong.

Now, scientists from UCL and Imperial have put this assumption through its most stringent test yet and found only a 1 in 121,000 chance that the universe is not the same in all directions.

To do this, they used maps of the cosmic microwave background (CMB) radiation – the oldest light in the universe created shortly after the Big Bang – taken between 2009 and 2013 by the European Space Agency’s Planck satellite.

Dr Stephen Feeney (Physics) and team searched for patterns in the observed CMB. The results, published in the journal Physical Review Letters, show that none were a match, and that the universe is most likely directionless.

Dr Feeney said: “This work is important because it tests one of the fundamental assumptions on which almost all cosmological calculations are based: that the universe is the same in every direction. If this assumption is wrong, and our universe spins or stretches in one direction more than another, we’d have to rethink our basic picture of the universe.”

—Hayley Dunning, Communications and Public Affairs

HEALTH STATS

4.75 million people affected by dementia worldwide

Alzheimer’s = most common form of dementia

520,000 people affected by Alzheimer’s disease in the UK

Symptoms include:

memory loss
confusion
change of mood
or personality

Symptoms include:

memory loss
confusion
change of mood
or personality
Healing broken brains

Dr Sara De Simoni talks traumatic brain injury, its devastating after-effects, and the research being done at Imperial to help patients.

What is TBI and how many people are affected?

Traumatic brain injury, or TBI, is one of the commonest causes of death and disability worldwide in people under 40 years old. TBI is an injury to the brain caused by an external force such as in a car collision. The severity of the injury, ranging from mild to severe, determines the long-term effects on the patients.

What are the effects of TBI?

TBI can have devastating effects on health. In the short term, TBI can cause post-traumatic memory loss or amnesia. Longer term effects include cognitive problems such as difficulty thinking, memory problems, and trouble concentrating, which ultimately can lead to loss of employment and homelessness. Mental health problems, such as depression, can result in relationship breakdown. Many other problems can severely affect quality of life, such as disrupted sleep, hormonal problems and epilepsy.

What is your research team doing to treat TBI?

Imperial’s TBI research group is taking a multi-faceted approach to TBI research. The studies range from trying to identify preventative measures, such as improving helmet design, to tracking recovery following a TBI. Intervention studies are also a major focus. For example, at Imperial, we are testing the effectiveness of methylphenidate, or Ritalin, to help those suffering with TBI-related disorders. Methylphenidate is currently used to treat ADHD, but might be effective in improving cognitive function after TBI. However, the response to treatment can be highly variable between patients. Therefore, what is needed in the clinic is a way to target the use of these drugs to patients who are likely to respond.

Giant hydrogen space blob reveals galaxy formation secrets

Scientists have witnessed galaxies forming inside a mysterious giant space blob, which will one day form the heart of a giant galaxy cluster. Lyman-alpha Blobs (LABs) are gigantic clouds of hydrogen gas that can span hundreds of thousands of light years. Their structure looks relatively simple, but they glow far more brightly than might be expected.

What causes the bright glow has been a mystery for 15 years, but now scientists have confirmed that two galaxies are forming within the largest ever Lyman-alpha Blob yet discovered – LAB-1. Using advanced telescopes, the researchers peered deeply into LAB-1 through the dust clouds to pinpoint several sources of radiation and light within the space blob, where they spotted the two young, growing elliptical galaxies. They deduced that the blob is creating stars over 100 times faster than the Milky Way. It is this frenzy of star formation that lights up the surrounding blob.

Study co-author Dr Dave Clements (Physics) said: “These blobs have been a mystery for a long time, but thanks to this large collaboration between experts and a variety of telescopes, we think we have solved a 15-year-old mystery: Lyman-alpha Blob-1 is the site of formation of a massive elliptical galaxy that will one day be the heart of a giant cluster. We are seeing a snapshot of the assembly of that galaxy 11.5 billion years ago.”

—CAROLINE BROGAN, COMMUNICATIONS AND PUBLIC AFFAIRS

Dr Simoni (bottom row, third from right) with her colleagues in the TBI research group
Undergraduate civil engineers translate their knowledge into concrete and steel during Imperial’s ground-breaking Constructionarium course

This summer, 84 second year undergraduate students made the journey to the National Construction College, in Bircham Newton in Norfolk, to take part in Imperial’s hugely successful Constructionarium module. Pioneered by industry partners and Civil Engineering staff, Constructionarium is a radical design course, allowing students to manage and build real engineering projects at a bespoke construction site provided and supported by the Construction Industry Training Board (CITB). Currently in its 14th year, this project has been adopted by over 20 UK universities, owing to its unique project-based learning.

Alison Ahearn, Principal Teaching Fellow in the Educational Development Unit, and one of Constructionarium’s founders, said:

“We have evolved from a classroom module, in which we asked students to make structural members out of rolled-up paper, into a multi-million pound outdoor learning environment with steel and concrete.”

With the support of Imperial staff, technicians and Graduate Teaching Assistants, four teams of 21 students were challenged to form their own construction companies and complete their project within a week, as well as manage their budget and materials. This year’s projects included scaled-down versions of Kingsgate Footbridge, the Gherkin skyscraper, Don Valley Stadium, and Ravenspurn Oil Rig.

Over the years, Constructionarium has strengthened relations between Imperial and industry partners. Students were joined on site by several senior engineers from contracting and consultancy practices, including Morrisroe, Expedition Engineering, Godber and Co. and CH2M.

Most of the students had never set foot on a working site before, but after receiving health and safety briefings and professional training with power tools, they were soon coordinating and directing excavators, cranes and concrete trucks.

Hak Nazerali, a Health and Safety Engineer from Morrisroe, said: “Constructionarium is a great transition from theory to a hands-on, practical-learning experience. It helps the students to really understand time-frames and the process behind all the planning in construction.”

The physical nature of Constructionarium was a new concept for many of the students, who discussed the challenges they had envisaged for the week.

Student Alice Jackson said of the experience:

“I never thought that contracting would be something I would be interested in, but this has been a once in a lifetime opportunity. I’ve had such a good time. The fact that you’re starting from scratch and you’re seeing all this being brought together, I can now truly understand why people would want to be a part of construction.”

Fellow student Jean Marc Feghali added:

“It’s been like nothing we’ve encountered before. There are so many more things to think about when it’s real, particularly executing the project and keeping everyone safe on site.”

The students were joined by Imperial’s Stefan Algar, Laboratory and Concrete Operations Manager at the Structures Lab. He said: “The students are in a very challenging situation, but they’ve had a great attitude towards their work throughout the week. As technicians, we’re here to bring a practical element, but the students have done all the thinking, all the learning, and all the doing.”

The fact that you’re starting from scratch and you’re seeing all this being brought together, I can now truly understand why people would want to be a part of construction.”

Hak Nazerali, from Morrisroe, added:

“Everyone here deserves to feel a great sense of achievement. They’ve learned so many key skills, and they’ve improved hugely over the week. Their health and safety standards are phenomenal.”

Dr Sunday Popo-Ola, Research and Teaching Fellow and coordinator of the day said:

“Constructionarium allows every student to taste the responsibilities of practical engineering, which converts students of engineering into student engineers. We are very proud of the success of this year’s students and of our teaching team. We could not do it without our industry partners.”

—MELANIE HARGREAVES, CIVIL AND ENVIRONMENTAL ENGINEERING

Training ground

Two students on the Don Valley team were offered summer internships with the on-site contractors, based on their outstanding performance during Constructionarium. One of them, Benjamin Mantell, spent the summer with Morrisroe, first working for a month in their head office on design and planning, then a month on site. “I realised how much additional design must be done in order to actually build the plans provided by an engineering consultancy,” he said, adding: “Then on site I learned that not everything goes exactly as planned and how forward thinking from the whole team on site can prevent time-costly mistakes.”

Professor Nick Buenfeld, Head of Civil and Environmental Engineering noted the Department’s international reputation for producing world-class graduates with excellent career prospects: “With its strong links with industry, employers, and professional institutions, the Department’s Undergraduate programme has been designed to equip students with real-world engineering expertise through field courses such as Constructionarium and surveying, creative design courses and project work. Extending students’ technical knowledge with hands-on experiences, and exploiting valuable networking opportunities with employers is key to rapid mastery of the transferable skills necessary for a successful career in engineering.”
The Gherkin

With 40 storeys reaching 180 metres into the sky, the Gherkin is one of the most recognisable skyscrapers in London. One team was challenged to build a 1 in 10 scale, four storey, 12 metre high replica of the tower, using prefabricated steel members connected in a diagrid form to a ringed concrete foundation. The students used over 1000 bolts to connect the steel shell-structure.

The team needed to perfect the calculations, surveying, and setting-out, or the building would be distorted.

Speaking on site, student Alice Jackson said: “Fitting the curved timber formwork for the concrete ring foundation, and getting the steel reinforcement inside to fit was quite a challenge.”

The team impressed with their improvising skills when their vibrating poker (used to compact wet concrete) broke down, forcing them to manually churn the concrete with sticks. When the formwork was removed there were only a few minor blemishes on the concrete’s surface.

“The team’s concrete was of outstanding quality, considering they were unable to use a poker,” said Graham Hardwick, of Morrisroe.

The final tasks on Friday morning were to lift the preassembled steelwork on to the structure, using a 35-tonne crane, fit the floor slabs in at each level, and bolt them together.

Speaking from the summit of the completed Gherkin, student project manager Azhar Ali said: “We may not be on top of a real skyscraper, but this is the highest we’ve ever felt. Would I do all this again? Every day!”

Ravenspurn Oil Rig

Ravenspurn is a 28,000 tonne oil platform in the North Sea, installed 80km off Britain. Developed by Arup Energy in 1989, the rig has a unique design which allows it to have two decks, whereas previously only one has been possible.

The Constructionarium students’ re-creation took place in a drydock separated from a lake by a dam and included a 4 metre square concrete base attached to a steel superstructure.

During construction some students had to sail into the 2 metre-deep lake and level the designated sinking location with gravel. The test of success was to fill the drydock with water before the dam was opened, so that the structure could float from the drydock to the prepared sinking location.

“We were casting the concrete for the base of the rig, which was going perfectly, but we then managed to pour too much concrete,” said student Teddy Taleongpong. “Our team project managers, Claudia Caravello and Christina Trigle, immediately set the whole team to work removing the excess concrete with buckets, which saved the project.”

On the final morning of the Constructionarium week the team successfully flooded the drydock, and towed the oil rig to the centre of the lake, where, after a tense wait, the structure sank into position.

“I have loved the hands-on experience of Constructionarium,” Teddy said. “It’s helped to confirm even more that I want to be in engineering, and that I want to be working on site with macro-projects.”
New beat

Luke Blair joined the College in September as Imperial’s first ever Vice-President (Communications and Public Affairs), responsible for leading and driving communications across the College to strengthen and enhance its position as one of the world’s top universities.

As a ‘cub reporter’ on the Reading Chronicle, did you ever believe you’d find yourself at the top table at one of the world’s best universities?

I don’t think I really had any proper career plan at that stage, and in fact I only started on the newspaper two weeks after my finals. It was a classic local newspaper experience with typewriters, carbon paper and offset printing press – it was all printed onsite and you could see the paper going round the building on these huge rollers. I also remember my first front page splash, with the headline: “Thug rule in aggro square” and the intro: “Hordes of youths have been terrorising Coronation Square, Southcote, in an orgy of night-time violence.” I have no idea why I remember that, but it’s still in there.

You were a political correspondent at the Evening Standard, at the heart of Westminster – did you learn any valuable lessons about the machinations of power there?

Yes, I worked in the Press Gallery of the Houses of Parliament. There used to be a very small elevator that connected it to the Lobby, so you used to get in with all sorts of people. They tended to fall into two camps: those who were pleasant and would talk with you and others who simply ignored any attempts at conversation, seeing it as beneath them. And you’d be surprised by the people who fell into each camp. Tony Blair’s rather infamous Director of Communications, Alastair Campbell, was always very friendly, and a formidable talent. He once looked at my upside-down notepad, full of shorthand notes, and said: “That’s a great story, and a good quote.”

Brexit is going to put Imperial and the sector in a very challenging, sometimes uncomfortable position.

You were a political correspondent at the Evening Standard, at the heart of Westminster – did you learn any valuable lessons about the machinations of power there?

Yes, I worked in the Press Gallery of the Houses of Parliament. There used to be a very small elevator that connected it to the Lobby, so you used to get in with all sorts of people. They tended to fall into two camps: those who were pleasant and would talk with you and others who simply ignored any attempts at conversation, seeing it as beneath them. And you’d be surprised by the people who fell into each camp. Tony Blair’s rather infamous Director of Communications, Alastair Campbell, was always very friendly, and a formidable talent. He once looked at my upside-down notepad, full of shorthand notes, and said: “That’s a great story, and a good quote.”

It seems like you had a fascinating and varied 13 years at London Communications Agency including various external directorships – tell me about some of the highlights.

There was certainly huge variety and I’ve probably done more of those kinds of jobs than many of my peers – I’ve run comms for a London Borough, two hospital trusts, Transport for London, National Car Parks, various bits of the NHS, and did a review of a government department’s comms. They were all large complex projects and it’s a bit of a truism to say, but all so different and so similar at the same time.

And you were given a fairly special send-off by the sounds of things?

Yes. Sir Peter Hendy, Chairman of Network Rail and former Transport Commissioner, is a good friend and former colleague and has this hobby where he drives a vintage routemaster bus around for charity, sometimes auctioning his services to corporate partners. He did a special commission for my LCA leaving do, which was very kind of him and of LCA.

Obviously your strengths in transport and health play well to Imperial, but what made you make that leap?

I felt that I’d probably learned as much as I could at LCA – I wanted a new challenge, to learn something really different and I’m starting to appreciate just what a challenge that will be. Between accepting the job and arriving here something rather monumental has happened. Brexit is going to put Imperial and the sector in a very challenging, sometimes uncomfortable position. Of course we do have this amazing position in the sector and in London, and we’ve got a great reputation – but it doesn’t mean we’re not exposed.

I understand music has played a big part in your life?

I’ve got a friend who says it’s good for the soul and I think that’s very true. My three children are also very much into music so clearly it’s in the family. I’ve often played in bands, from my teenage days in the 1970s to more recently for a cover band. I also organised student union gigs at my alma mater Reading University and managed to book some quite big 1980s bands like The Smiths and Motörhead.

Luke’s CV

• Vice-President, Communications and Public Affairs, Imperial College London
• Board Director, London Communications Agency
• Associate Director, Fishburn Hedges
• Media Relations Manager, The Design Council
• Political Correspondent, Evening Standard
• Reporter, Reading Chronicle


Visit: bit.ly/punk-show
Supporting Imperial’s great teachers

As part of Imperial’s commitment to delivering world class teaching, the Education Development Unit is supporting excellent teachers to lead the way.

Imperial has a number of Higher Education Academy (HEA) Fellows who have been supported in developing their practice and now demonstrate excellence in their teaching.

The HEA Fellowship programme recognises commitment to best practice in teaching and learning. There are currently around 65,000 HEA Fellows across the higher education sector.

Imperial has its own in-house programme to support staff in applying for HEA Fellowship. Open to academic and non-academic staff who are engaged in teaching work at the College, the STAR framework run is by Imperial’s Education Development Unit (EDU).

Dr Martyn Kingsbury, Director of Education Development said: “With the introduction of the Teaching Excellence Framework (TEF) professional recognition with HEA fellowship is increasingly valuable across the HE sector and useful more widely as evidence of good technical communication skills.”

We spoke to three of Imperial’s Fellows about why they applied for their HEA Fellowship.

**Dr Parsapour Shadeg – Locum Consultant Vascular Surgeon (HEA Associate Fellow)**

In my role I regularly teach medical students, junior doctors and nursing staff. I have a very busy schedule working within the NHS but the EDU has always been accommodating for one to one meetings and guiding me through the application. The Fellowship scheme teaches the teacher the most effective teaching methods, guides them on how to assess their students and also how to assess the effectiveness of their own teaching methods.

**Dr Andrew McKinley – Principal Teaching Fellow, Department of Chemistry (HEA Senior Fellow)**

I became a Teaching Fellow at Imperial because I really enjoyed the curriculum development side of things and I decided I wanted to make education my career focus. I attended the STAR workshops which were useful as they allowed me to bounce ideas of other people going through the same process. Becoming a fellow has given me confidence as an education professional in a research focussed institution. It provides you with a sense of validation of your skills and professional knowledge which has given me the confidence to support colleagues to develop their teaching too.

**Georgina Wildman – Senior Library Assistant (NHS Support) (HEA Fellow)**

My role at Imperial as a Senior Library Assistant means I offer teaching and training to NHS staff on library and research skills. I was encouraged to apply for an HEA Fellowship by my manager. The process was quite easy and the help from the EDU was invaluable.

---

DORA OLAR, CHEMICAL ENGINEERING

---

**mini profile**

Andrew Livingstone

Professor Andrew Livingston stepped down as Head of the Department of Chemical Engineering on 1 October, after eight years at the helm. He now becomes the inaugural Director of the new Barrer Centre (see page 2).

What inspired you to study chemical engineering? Ever since I was little I’ve really liked engineering. As a kid, I remember I would take my father’s old tobacco tins and put a hole in them with a screw and then light a fire underneath them and it would start making steam. Then I would undo the screw and it started to release the steam. Eventually if the pressure got too high it would blow the top off the tobacco tin. So I have always had this fascination with thermodynamics and steam and how steam could drive things.

What does being a HoD involve? I think it involves two things really. There’s the strategic leadership of the department: ensuring that the department is heading in the right direction and that vision is shared by others. And then there is the day-to-day operations, making sure that we provide quality teaching and research, and take care of students and staff. As a HoD I’ve been surrounded by outstanding administrators and people who’ve supported me, so I haven’t had to worry about the detail of many of those things because the quality of the professional staff is equal to the quality of the academic staff. Which means that the department runs in a highly efficient way and you can focus on high level strategic objectives.

What is your happiest memory about being a HoD? I think the most pleasant job I have or the thing I like the most is when I get to go around telling staff that they’ve been promoted. I have the privilege of going and telling staff that “Guess what, you’re a Reader/Professor/Senior Lecturer!” They’re always really happy and I’m really happy that we’ve got through the promotions process. That gave me a buzz eight years ago and still gives me a buzz now.

---

—DORA OLAR, CHEMICAL ENGINEERING
Imperial success at Inaugural Cybathlon

A team from Imperial competed in the world’s first ever “bionic Olympics” this month – securing a silver medal in one event.

The Cybathlon enables people living with severe disabilities to compete in sports, where they have previously been unable to take part, with the help of assistive technologies.

A team of academics and students from the College and their volunteer athletes, called pilots, competing in the Cybathlon, held for one day in Zurich Switzerland on 8 October 2016. Amongst the technology in the competition is a wheelchair that the user can control via eye movements, developed by Dr Aldo Faisal and his team from the Departments of Bioengineering and Computing.

At the Cybathlon, team Imperial competed against 58 teams from 29 countries in the Swiss Stadium in Zurich in front a crowd of thousands including family, friends and supporters.

Altogether, the Cybathlon comprises six sporting disciplines and the Imperial team competed in three of them including the powered wheelchair race, the brain-computer interface race, the powered arm prosthetic (PAP) race and the functional electrical stimulation bike race – making the final in each event and securing a silver in the bike race.

In this event, pilots whose legs are paralysed cycle around an indoor racetrack on specially configured bikes. An on board computer stimulates their leg muscles electrically, which means that they can pump the pedals. For this race, team Imperial has formed a partnership with Berkel Bikes UK, which is an athletic team of cyclists supported by manufacturers Berkel Bikes.

Imperial team leader Dr Aldo Faisal (Bioengineering) said: “It was tremendously inspiring to see how the technology could empower our pilots. The Imperial team was the only one to involve students in the lead up to the competition and it is a testament to their efforts that we did so well. With this success we are now planning for the next event in two years-time. Watch this space!”

—COLIN SMITH, COMMUNICATIONS AND PUBLIC AFFAIRS

Calling enterprising female students

The hunt is on for the College’s brightest entrepreneurial women, as this year’s Althea-Imperial Programme launches.

The programme, now in its third year, is a pioneering initiative to inspire women in science, technology and business to pursue their entrepreneurial ambitions.

A collaboration between Imperial and the Althea Foundation, the programme consists of workshops with high-profile speakers, business coaching, one-to-one mentoring, performance training and networking opportunities to help students develop their innovative ideas into an enterprising project.

At the end of the programme, selected finalists can compete for a total of £20,000 manufacturing process is sustainable, low cost, low energy, and doesn’t rely on or produce any hazardous chemicals – unlike current methods.

Since winning the Althea-Imperial prize, Gabriella and her co-founder Henrik Hagemann have gone on to recruit two full time members of staff and have been meeting with suppliers and manufacturers to take their product forward.

Speaking at last year’s final, Professor Alice Gast said: “If you give women an opportunity, they seize it. Women by their very nature are entrepreneurial, they just need the confidence to make the leap into an uncertain future and pursue their idea.

“Althea-Imperial women do not just produce a product in search of a market. They produce a solution to a problem.”

—DEBORAH EVANS, COMMUNICATIONS AND PUBLIC AFFAIRS

Find out more about the Althea-Imperial programme: bit.ly/Imperial-Althea
Advanced Hackspace holds 2016 Demo Day

Imperial’s Advanced Hackspace (ICAH) held its annual Demo Day this month, showcasing some of the innovative projects made by its members.

The annual Demo Day is a showcase of projects and innovations created by ICAH members and was open to students, staff and the general public.

There were a range of innovations on show including Growframe – the collapsible hydroponic farm – and Gyro Gear.

Created by Imperial graduates Faii Ong and Paul de Panisse, Gyro Gear is a glove that utilises the power of gyroscope technology to stabilise hand tremors in Parkinson’s patients. The glove aims to significantly improve the day to day living conditions of sufferers of the disease making it easier to complete tasks such as eating and drinking.

Jing Ping, a PhD student in the Department of Materials and Strategy Coordinator for ICAH, said: “Some people aren’t sure what a hackspace is or what it can offer them. The Demo Day is a chance to show what the hackspace does, and what its users have created, to the College and the public.

“Whether you’re already developing a new idea or want to learn more about how to prototype your idea, ICAH can provide the support and equipment to help you make it a reality.”

Established in September 2014, the ICAH gives Imperial students and staff access to a variety of workshops and labs around the College.

Membership is free, and as well as providing access to equipment, ICAH offers a range of opportunities for collaboration with designers and makers from across the Imperial community. Alongside the facilities they host a range of events and workshops throughout the year, including hack-a-thons and the I3 series of talks.

—JON NARCROSS, COMMUNICATIONS AND PUBLIC AFFAIRS

Towards a cure for colds

Dr Ross Walton, Professor Sebastian Johnston and Dr Michael Edwards from the National Heart and Lung Institute are a co-founders of Therapeutic Frontiers, a new Imperial spinout which aims to work with drug developers on new treatments for infections such as the common cold.

How are clinical trials run now?
With the common cold, for example, current trials are large scale studies. You recruit hundreds of volunteers, distribute the medication to be trialled and ask participants to keep a diary, noting whenever they have a cold. These typically run for a year or longer.

How different is your system?
The Therapeutic Frontiers model standardises as much of a trial as possible: all participants are infected with the same virus strain in the clinic at a known time point, then we, as clinicians and scientists, can characterise the volunteers’ response throughout the trial and if and how a potential treatment works. We also sample and analyse tissue in the respiratory tract, the area where the response is elicited. Because the information is so much more detailed, we are able to recruit fewer volunteers and, dependent on the trial, include asthma and COPD patients.

Why are patients with asthma and COPD important?
If you are generally healthy, the cold is a mild disease. For patients with COPD and asthma, such infections cause a worsening of their disease and can prove life threatening. Current treatments are ineffective against treating these virally induced attacks of disease and thus asthma and COPD patients are some of those who would benefit the most from new medicines.

Our trial volunteers with COPD and asthma generally appreciate the opportunity to contribute towards something that can further our knowledge and treatment of their conditions for fellow sufferers.

What are other issues faced by these patients?
The big issues with asthma and COPD is the lack of new medication to treat attacks of disease. For the past 50 years or so, corticosteroids have been used to treat disease with little progress. The hope is that the knowledge we generate through Therapeutic Frontiers will lead to new medication to effectively treat these patients when they fall ill; perhaps even develop a new regular treatment that provides them with the same resilience to infection as healthy individuals.

—DAVID BARRETO IAN, IMPERIAL INNOVATIONS
Staff featured in this column have given many years of service to the College. Staff listed celebrate anniversaries during the period 1 August–31 September 2016. The data are supplied by HR and correct at the time of going to press.

**30 years**
- Mark Curley, Technical Plumber, Estates Division (Silwood Park)
- Jon Fear, Radiation Protection Officer, Health and Safety Services
- Margaret Hall, Senior PA to HoD and DOM, Computing
- Dr Ken MacLeod, Reader in Cardiac Physiology, National Heart & Lung Institute
- Professor Petros Nihoyannopoulos, Professor of Cardiology, National Heart & Lung Institute
- Sarah Payne, Academic Administrator, Chemical Engineering
- Pat Souther, Honorary Clinical Senior Lecturer, Surgery and Cancer
- Professor Christofer Toumazou, Winston Wong Chair, Biomedical Circuits, Electrical and Electronic Engineering
- Professor Jeffrey Waage, Visiting Professor, Centre for Environmental Policy

**40 years**
- Professor Anne Bishop, Emeritus Reader in Tissue Engineering & Regenerative Medicine, Medicine
- Professor Roger Greenhalgh, Emeritus Professor in Surgery, Surgery & Cancer
- Professor Sir Anthony Newman CBE, President’s Envoy for Health, Medicine
- Gary Senior, Technician, Aeronautics
- Professor Alan Williams, Honorary Professorial Research Fellow, National Heart & Lung Institute

---

**SPOTLIGHT**

**Professor Chris Toumazou, Department of Electrical and Electronic Engineering**

This summer Professor Chris Toumazou, one of Imperial’s most innovative and respected academics, celebrated 30 years of service at the College – an incredible milestone on what has been a remarkable career journey.

Uninspired by school, Chris finished without any formal qualifications, but later enrolled on a City and Guilds College course, finding he had a natural talent for electronics. He then took a two-year ordinary national diploma followed by a degree in engineering at Oxford Polytechnic, now Oxford Brookes University, and then a PhD.

“I was told I had written a good thesis, so I applied to Imperial College to do a post-doc and, to my disbelief, I was accepted,” Chris told the *Guardian* in a recent interview.

Starting as Research Fellow on 1 August 1986, Chris rose to Lecturer in 1987, Reader in 1992 and then Professor in 1994 at the age of 33 – one of the youngest academics to hold the position.

Chris raised over £40 million to create the Institute of Biomedical Engineering at Imperial, aimed at cultivating medical innovation across multiple scientific disciplines – which was opened by Her Majesty the Queen in 2007. In 2013 he became Regius Professor of Engineering – conferred to Imperial during the Queen’s Diamond Jubilee.

Chris holds more than 50 patents for medical devices and has founded two successful companies (see page 2). Among his many accolades, is his European Inventor of the Year award in 2014, granted by the European Patent Office.

Speaking to *Reporter*, Chris said: “It’s been an incredibly exciting 30 years. I have seen the College become an international brand. I have witnessed the conception and formation of institutes to solve global problems in environment energy and healthcare. I have also seen the great merge between medical science, engineering and business.

“The greatest joy is when some of my students become professors but I remain, effectively, a full time student! That’s why I love academia. From using the good old ‘chalk and talk’ to an iPad – the satisfaction of teaching remains.”
Welcome new starters

Dr Timothy Adams, Physics
Dr Yousof Ahmed, NHL
Dr Birena Ameen-Jahia, NHL
Dr Judith Alazraki-Chemi, Centre for Environmental Policy
Miss Ada Amponsah, Surgery & Cancer
Ms Sinthuka Anantharamaiah, Medicine
Dr Athanasios Angelidou, ESE
Dr Stefano Angioletti-Uberti, Materials
Dr Hussain Ameer, Physics
Miss Kristina Ansdell, Biostatistics
Dr Roberto Bartolli, Catering Services
Ms Carolina Barter, Surgery & Cancer
Mr Richard Barrow, Faculty of Medicine Centre
Dr Joseph Bartlett, Life Sciences
Miss Carrie-Amber Battenby, Catering Services
Mrs Lavina Belford, Medicine
Mr Fortune Belle, Physics
Dr Oliver Bennett, Advances
Mr Fabrizio Bianchi, Mathematics
Dr Martin Billiam, Medicine
Mr Luke Blair, Communications and Public Affairs
Mr Rob Blackwell, Catering Services
Mr Matthew Bowles, Life Sciences
Miss Ellen Bowler, Life Sciences (Silwood Park)
Dr Andrea Brin, Mathematics
Mr Sanasahul Brohi, Catering Services
Dr Andreas Bruckbauer, NHL
Dr Angela Brueggemann, Medicine
Dr Michael Brunnen-Jayatil, Biostatistics
Miss Keerti Bunka, EVEC
Dr James Bundred, Surgery & Cancer
Mr Feiqing Cai, Computing
Ms Rebecca Callingham, Medicine
Dr Robert Caplan, Chemistry
Miss Vivian Calenda, Graduate School
Dr Degan Christopher Alvarez, School of Professional Development
Professor David Chadwick, Chemical Engineering
Dr Geraldine Chan, ESE
Dr Maria Charachentchikul, Civil and Environmental Engineering
Ms Melissa Cheu, Materials
Miss Hannah Chisholm, Medicine
Dr Michael Collins, Life Sciences
Mr George Cleaver, EEE
Dr Fabrice Claude, Surgery & Cancer
Dr Daniel Coles, ESE
Mr Paul Corbett, Chemical Engineering
Miss Saini Cue, Public Health
Mrjarvis Cudjoe, Biostatistics
Dr Oscar Dahlstrom, Physics
Dr Andrew Davies, ThinkSpace
Dr Robbie Davis, Faculty of Engineering
Dr Leon de Boer, NHL
Dr Claudia de Kwaak, Physics
Miss Celia de Luis, Materials
Ms Vivianne Desphip, Public Health
Dr Alme Di Maria, Surgery & Cancer
Dr Anastasia Dimakopoulou, Medicine
Dr Dounia-Zede Djeffoulat, Clinical Science
Dr Netan Dogra, Mathematics
Ms Danielle Grinter, School of Professional Development
Dr Francisco dos Santos, Surgery & Cancer
Professor Stuart Elborn, NHL
Miss Julie Endersby, Life Sciences (Silwood Park)
Mr Hugo Espinosa, Computing
Professor Dario Farina, Biostatistics
Dr Marta Faras Mane, Surgery & Cancer
Dr Genival Fernandez da Silva Jr, Mathematics
Mr Fernando Fernandez Alvarez, Faculty of Natural Sciences
Dr Michael Field, Mathematics
Miss Katherine Fieldgate, HR
Ms Jasmine Finer, Physics
Mr Guravalo Fiorini Neto, ESE
Dr Silvia Fischer, School of Professional Development
Dr Matthew Foreman, Physics
Ms Claire Fox, Education Office
Dr Jacob Fox, Chemistry
Dr Adriano Gai, Chemistry
Dr Dejan Gajic, Mathematics
Mr Haxiang Gao, Mechanical Engineering
Boregoreq Genest, School of Professional Development
Ms Jialin Gao, Public Health
Mr Petos Giataganas, Computing
Mrs Rachel Gibson, Medicine
Miss Sara Gonzalez Anton, Life Sciences
Miss Leonie Gough, Life Sciences (Silwood Park)
Mr Abdulrazzaq Gregory, Physics
Miss Kathryn Greve, School of Professional Development
Miss Emma Griffiths, Campus Services
Mr Edward Grin, Computing
Dr Sadia Haider, Medicine
Dr Corinne Hanlon, Student Recruitment & Outreach
Dr Joan Habb Caren, Civil and Environmental Engineering
Dr Simon Harout, Biostatistics
Ms Brenda Hart, Public Health
Ms Yoko Hashimoto, School of Professional Development
Dr Thomas Harwood, Physics
Dr Simon Haynes, Medicine
Dr Emiliera Herroa Mayoana, Clinical Science
Mr Sam Hesketh, Computing
Dr Mokler Hossain, Surgery & Cancer
Dr Emily Howard, Medicine
Dr Laura Hunter, Physics
Dr Richard Jabbour, NHL
Ms Pujja Jadav, Public Health
Miss Rebecca Jeffers, Mechanical Engineering
Mr Benjamin Jeffrey, Public Health
Miss Reebah Jeffers, Public Health
Mr Lee Jiang, Public Relations
Dr David Jenkins, Physics
Miss Wen Jing, Computing
Mr Hao Jun, Catering Services
Miss Meera Joshi, Surgery & Cancer
Dr Anand Kailas, Chemistry
Mr Shirish Khedkar, ESE
Mr Matthew Kassov, Grant Thornton Institute
Mr Benjamin Kidd, Civil and Environmental Engineering
Dr Chun Kim, Design Engineering
Mr Min Kim, NHL
Mr Hong Kim, EEE
Miss Peta Ann King, Faculty of Medicine Centre
Miss Eluterina Kinnear, Medicine
Miss Rosalene Kinnear, Faculty of Medicine Centre
Dr Carolina Kocianich, Clinical Science
Dr Ioannis-Kostas Kokkinias, Mathematics
Dr Robert Koorez, Mathematics
Amel Lachichi, EEE
Dr Amel Lachichi, EEE
Miss Lise Lanksman, School of Professional Development
Miss Millie Langton, Faculty of Medicine Centre
Ann Lawrence Jones, Surgery & Cancer
Dr Michael Lawton, Medicine
Dr Robert Leech, Finance
Mr Mario Lemelin, Chemist
Mr Jiang Li, Library
Mr Zewei Li, Computing
Mr Zengyua Liu, Computing
Mr Zhaoyong Liu, Surgery & Cancer
Dr Bao Liu, Surgery & Cancer
Dr Robert Lukomski, Computing
Mrs Anusha Shah, Surgery, NHL
Dr Vincent Manai, Clinical Science
Ms Linda Mahboub, Life Sciences
Dr Spinos Mahim, NHL
Mrs Georgia Mannion, Public Health
Mr Yuki Manno, School of Professional Development
Dr Luc Marchal, Surgery & Cancer
Dr Laura Margheriti, Aeronautics
Dr Arthur Maniata, Chemical Engineering
Miss Aldara Martin Alonso, NHL
Ms Isabel Martin, Surgery & Cancer
Miss Madelaine Mason, Surgery & Cancer
Ms Philippa May, Medicine
Dr Claire McCahill, NHL
Dr Francisco Moreno Belmonte, Catering Services
Dr Laetitia Mottet, ESE
Dr Fergal Nagle, Registry
Dr Jonathan Nigel, School of Professional Development
Miss Ceylinbano Nour-Agha, NHL
Mr Dan Nicholls, Faculty of Medical Sciences
Dr Akemi-noogawa Valdez, Materials
Miss Lidyane Nunes De Lima, Catering Services
Dr Steven Okoli, Medicine
Dr Malene-Ostensen, Physics
Dr Jim Petru, Chemistry
Dr Caro Owen, Clinical Science
Dr Mehmert Ozturk, ESE
Dr Pardis Gamiro, School of Professional Development
Dr Sinan Parker, Civil and Environmental Engineering
Dr Ahu Parr, Materials
Dr Lorenzo Pasquali, School of Professional Development
Miss Alonso Pascual, Physics, School of Professional Development
Dr Ahu Parry, Materials
Dr Michele Paulatto, ESE
Ms Brigitte Pledger, School of Professional Development
Mr Nicolle Pickering, School of Professional Development
Dr Nicole Pine, Catering Services
Dr Josefa Plascencia, Mathematics
Miss Laura Polito, NHL
Dr Paul Pringle, Obstetrics & Gynaecology
Dr Vivek Prasad, Public Health
Miss Beth Prescott, Advancement
Ms Maressa Preux, School of Professional Development
Dr Dursku Primi, Materials
Mr Pui Ip, Computing
Miss Laura Pugh, Business School
Dr Vania Rappos De Oliveira, Medicine
Miss Nikol Rethof, Institute of Global Health
Dr Rachel Redha, Business School
Mr Siubhla Redha, Clinical Science
Ms Katharina Reeh, Chemistry
Dr Elseernore Resenges, ESE
Mr Cari R高低, NHL
Dr Samuel Rouas-Aguado, School of Professional Development
Dr Andrew Ritchie, NHL
Dr Pakalyt Ruen-asongkziej, Materials
Mr Oliver Rusznak, School of Professional Development
Mr Saituki Saha, Chemical Engineering
Dr Shafizar Salim, Medicine
Dr Shamsul Salleh, NHL
Mr Rashidul Saleh, Medicine
Dr Debreck gebre, School of Professional Development
Ms Siam Rehman, School of Professional Development
Miss Alzatara Sara, School of Professional Development
Ms Tubaib Sarwar, Medicine
Mrs Iris Schenwitz, Medicine
Dr Michael Schmutzler, Life Sciences (Silwood Park)
Dr Carlo Secco, Computing
Dr Auclair Shah, Surgery & Cancer
Dr Syed Shah, Estates Division
Dr Leslie Sheehan, Medicine
Miss Annalissa Sheehan, Public Health
Dr Louise Shelley, Faculty of Medicine Centre
Ms Sandra Silva Guedes, Medicine
Mr Donald Steven, ESE
Mr Chamaa Sohail, Medicine
Mr Marko Smojdek, NHL
Dr Emily Stanislavac, Mathematics
Miss Helen Stubben, Estates Division
Ms Olivia Swann, Life Sciences
Miss Kiti Seabadoos, Catering Services
Dr Cristina Tedde, Public Health
Mr Rohit Taglour, Physics
Dr Damith Tattigouli, ESE
Dr Eno Thekpesi, Computing
Dr Karth Thirum, Chemistry
Dr Andrew Tolleys, Physics
Ms Jasspreet Toor, Public Health
Mr Owe Tran, Computing
Dr Roby Toledano, ESE
Dr Helen Tyler, Medicine
Mr Seng Ung, Medicine
Dr Antonio Valido, Physics
Ms Anita Varga, Catering Services
Dr David Wickers, Medicine
Dr Yonatan Wiznia, School of Professional Development
Dr Tai Wada, Aeronautics
Dr jocelyn Waldburger, Clinical Science
Mr Shawn Webster, School of Professional Development
Dr Loring Wenzel, Mathematics
Miss Jo Wang, Civil and Environmental Engineering
Mr Dan Warren, Advancement
Dr Christopher Webber, Catering Services
Mr Dan West, HR
Ms Nicole Wether, NHL
Dr Chiharu Watanabe, Mathematics
Ms Lucy Wilson, Chemistry
Mr Thomas Wood, Computing
Dr Georgia Woodfield, Surgery & Cancer
Dr James Wright, Public Health
Dr Yumiko Xiong, Materials
Dr ESE
Dr George Xue, School of Professional Development
Miss Seema Yalamanchili, Surgery & Cancer
Dr Huayu Yang, Chemical Engineering
Dr Joseph Yao, Chemical Engineering
Dr Andrew Youngsmin, Communications and Public Affairs
Miss Long Sha Yu, EEE
Ms Marta Zagonowska, Chemical Engineering
Dr Gaia Zanni, Physics
Dr Simon Zach, Environmental Policy
Dr Dirlane Zach, Chemistry
Dr Xiaole Zhang, NHL
Ms Audrianna Zhu, Public Health

Please send your images and/or comments about new starters, leavers and retirees to the Editor at reporter@imperial.ac.uk

The Editor reserves the right to edit or amend these as necessary.
Farewell

moving on

Miss Nihaad Abbass, Faculty of Medicine Centre (3 years)
Mrs Iris Adamov, Centre for Environmental Policy (15 years)
Dr Michael Albin, Materials (1 year)
Dr Christofforns Anagnostopoulou, Mathematics (1 year)
Dr Jordan Argie, Biophysics (5 years)
Mrs Mazzou Anjem, Medicine
Mr Stefan Antonowicz, Surgery & Cancer (13 years)
Mr Sonal Arora, Surgery & Cancer (5 years)
Dr James Arpino, Life Sciences
Dr James Athron, School of Professional Development
Arbel Arzy-Schнима, Materials
Dr Aicha Ashfra, Medicinal Chemistry
Miss ench Ame, Residential Services
Miss Enverovene Avo, Residential Services
Dr Hella Baumann, Life Sciences
Ms Louise Beach, Student Recruitment & Outreach
Ms Janette Beecham, HR
Mr Yury Belobrub, ICT
Dr Maxwell Benjamne, Public Health
Ms Melissa Berthold, Biochemistry
Mr Yash Bhasin, Surgery & Cancer (15 years)
Miss Tejal Bhattacharya, Medicine
Mr Sanjay Biswaha, Computing
Dr Gabriele Bolzoni, Public Health
Dr Maxine Bonnington, Life Sciences
Mr Neil Bourke, Medicine
Mr Luke Brady, Residential Services
Miss Rebecca Bristow, Surgery & Cancer
Ms Natalie Brown, Life Sciences
Miss Lauren Brown, Life Sciences
Ms Isabel Caldas, Medicine
Dr Ioana Cristina Carlson, Computing
Dr Richard Carmichael, EEE (5 years)
Miss Danielle Carlson, Life Sciences
Professor Jeff Cash, Mathematics
Dr Rama Chatterjee, School of Professional Development
Miss Susana Choudhury, Bioengineering
Dr Rukawa Chowdhury, NHI
Mr Athanasios Christodoulou, Mechanical Engineering
Miss Daniela Cicciarella, Registry
Dr Alexander Coote, Medicine
Dr Chris Cook, Computing (5 years)
Dr Matthew Cordova, Medicine
Professor Steven Cowley, Physics (15 years)
Dr Colin Crick, Chemistry
Mrs Christelle Dale, Catering Services
Mr Bucker Danger, Physics (12 years)
Mr David Dancey, Life Sciences
Mrs Caroline Danes, Communities
Affairs (13 years)
Dr Philip De Grouchy, Physics
Miss Sean Derry, Computing
Dr Sarah Dodds, ESE
Miss Sabrina Dodds, Advancement
Dr Frances Doyle, Medicines
Dr Emily Drabek-Maulder, Physics
Dr Anna Dustic, Physics
Miss Keri-Anne Ellis, Business School
Professor Roger Evans, Physics
Professor Roger Fenner, Mechanical Engineering (12 years)
Dr Matthew Ford, School of Professional Development (14 years)
Dr Ronan Goughan, Surgery & Cancer
Mr John Green, Business School
Mr Stone, Sciences
Dr Rachael Glasgow, Business School
Miss Marta Graça Aveiro Carmoninha, Aeronautics
Mr Samuel Grand, Physics
Dr Alex Greenham, Bioscience
Mr Michael Grosevich, Mathematics
Dr Gaurav Gupta, Mechanical Engineering
Dr Matthew Hadfield, School of Professional Development
Mr Mintz Hambach, Physics
Ms Adele Hamon, School of Professional Development
Miss Claudia Hamon, School of Professional Development (9 years)
Dr Matt Hamoney, Chemical Engineering
Dr Fumio Harada, Biomedical Engineering
Ms Louise HIB, ICT
Miss Jessica Hobby, Sport and Leisure
Dr Brian Holli, Life Sciences (Silwood Park)
Dr Ali Khan, Chemical Engineering
Dr Ben Jones, Medicine
Dr Milad Joksh, NHL
Ms Emma Joy, Faculty of Engineering
Emmetusse Professor Bruce Joyce, Physics (16 years)
Dr Agnieszka Jownez, NHS
Dr Keith Jowsey, Medicine
Dr Robert Lafferty, Chemical Engineering
Dr Nadia Kobold, Public Health
Dr Dimitrios Kontopoulo, Life Sciences
Mr Athanasios Korovas, Chemistry
Dr Kewi Kavias, Physics
Dr Jagade Prath, School of Professional Development
Dr Romain Lambert, Chemical Engineering (7 years)
Dr Frank Lannoo, Life Sciences
Mr Arnaud Lassalle, Mechanical Engineering
Dr Jing Lu, Design Engineering
Dr Yevgeniy Liokumovich, Mathematics
Dr Victoria Lopez Morales, Computing
Miss Elena Louca, Mathematics
Dr Adam Lumsdon, Mathematics
Dr David Mair, School of Professional Development
Dr Jose Martin Belota, Chemistry
Mr Sean Markus, Aeronautics
Dr Manu Mazo Vega, Materials
Dr Rama Misra, Life Sciences
Mr Arnaud Lassalle, School of Professional Development
Dr Khalid Mohamed, Surgery & Cancer
Dr Robert Macfarlane, Chemical Engineering
Dr Rachel Malin, School of Professional Development
Dr Neil Man, Computer Science (7 years)
Dr Juliana Manning, School of Professional Development
Dr Mohammad Mobasheri, Surgery & Cancer
Dr Mohammad Nabi, NHI (14 years)
Ms Marga Navarrete Ramirez-Montesinos, School of Professional Development (15 years)
Dr Morwen Naylor, School of Professional Development
Dr Julian Newman, Mathematics
Dr Lei Nie, Computing
Mr Banton Nocac, ICU
Dr Martin O'Connell, Aeronautics
Miss Enverovene Avo, Residential Services
Dr Rituko Otsa, Business School (13 years)
Dr Jacques Page, Mechanical Engineering
Dr Leekaw Palmer, Residential Services
Mr Wei Pan, Computing
Dr Filip Peric, EEE
Dr Shicai Wang, Computing
Miss Yinan Wang, Aeronautics
Mr Mohammad Qureshi, Surgery & Cancer
Miss Ravenna Raxhuma, Surgery & Cancer
Dr Torsten Reimer, Research Office
Miss Sophie Rena, ICT
Dr Rya Reshetukhina, Computing
Dr Jonathan Rigden, Mathematics
Dr Edil Rogers, Medicine (5 years)
Mr Paul Rogers, Medicine
Mr Paul Rojas, School of Professional Development
Dr David Rojinski, School of Professional Development
Dr Ognjun Rudovic, Computing (3 years)
Dr Julian Sayle, Medicine
Mr Girf Ryder, Registry (5 years)
Mr Arnaud Buelan da Cebel, Medical School
Mr Soleb Sayle, Medicine
Dr Catherine Scallan, Medical School
Dr Mohammad Tawfik, School of Professional Development
Dr Robert Simon, Aeronautics
Professor Rodenweck Smith, Mechanical Engineering (5 years)
Mr Patrick Snapa, Computing
Dr Johannes Spinnemken, Civil and Environmental Engineering (7 years)
Dr Ecco Stalter, Medicine
Dr Stavros Stavrouloss, Design Engineering
Dr Jack Stanpak, ICU
Dr Clement Stevens, School of Professional Development
Dr Minmow Shuh, Physics
Dr Aralv Leonce, Business School
Mr Richard Surgenor, NHL
Miss Ieva Survile, Catering Services
Mr David Swerdlo, NHL (5 years)
Mr Nicholas Sympo, Estates Division
Mr Rohan Takhar, Public Health
Miss Alexis Thomas, Surgery & Cancer
Dr Nikolaos Tisandis, Medicine
Miss Rita Trombin, Public Health
Miss Jenny Tray, Surgery & Cancer
Mr Rohan Uppal, Residential Services
Mrs Mariza Varathat, EEE
Ms Gayle Verdi, School of Professional Development
Dr Valentina Vitale, Computing (5 years)
Miss Gillian McKiernan, School of Professional Development
Dr Israel Wagner, School of Professional Development
Dr Micah Tang, Computing
Dr Viman Wang, Aeronautics
Mr Yujian Wang, Computing
Dr Apichai Peeraydee, Physics
Dr Helena Watts, Surgery & Cancer (6 years)
Mr Jairov Deled, Medical School
Dr Ashley Whittlington, Medicine
Dr Tony Wiggen, Surgery & Cancer
Mr Thos Wong, Chemistry
Dr Jianhui Yang, ESE
Dr Yung Yang, ESE
Dr Japheth Yates, Physics
Dr Wan Yue, Chemistry
Dr Giovanni Zannettoto, Physics
Dr Tony Ryan, Mechanical Engineering (8 years)
Dr Julian Rycroft, Medicine (3 years)
Dr Teresa Sergot, Faculty of Engineering (22 years)
Professor Alexander Wolf, Computing (9 years)

This data is supplied by HR and covers staff joining the College during the period 1 August – 31 September 2016. This data was correct at the time of going to press.
**November 2016 events highlights**

FOR COMPLETE DETAILS: www.imperial.ac.uk/whats-on

---

**03 NOVEMBER, 17.00**

**Imperial Fringe: Criminal Investigations**

Imperial Fringe takes on and takes down crime at this evening exhibition of exciting science and interactive research demonstrations. Meet our teams pioneering new fingerprint imaging, building crime scene scanning robots and analysing human hairs to link deaths to illegal drug use. Criminal Investigations is the latest in Imperial College’s Fringe series of public evening events exploring the livelier side of science. Based on the College’s ground-breaking research, the Fringe programme runs throughout the year to give our friends and supporters an opportunity to meet our researchers and find out more about our work.

---

**09 NOVEMBER, 17.30**

**60 Years of Nuclear Nonproliferation**

In the past several decades the end of the Cold War signalled the possibility of a more peaceful world order and the expectation that a steady reduction in both overall numbers and threat from nuclear weapons might be at hand. However, this order is increasingly challenged by multiple pressures including a resurgence in East/West tensions, continued instability in the Middle East, and the danger of nuclear proliferation to non-state actors. Eminent U.S. nuclear non-proliferation leader, Anne Harrington asks who’s the adversary now for the Institute for Security Science and Technology’s 2016 Vincent Briscoe Lecture.

---

**27–28 OCTOBER, 09.00**

**Imperial Global Challenges Showcase**

Explore the College’s research, education and commercialisation activities tackling challenges in the Data Revolution and Health and Well-being.

**28–30 OCTOBER, 18.00 (FRI), 12.00 (SAT–SUN)**

**Monopoles: an exhibition about art and physics**

Imperial physicists take part in a weekend of exhibitions bringing the search for the magnetic monopole at the Large Hadron Collider (CERN) into a Bermondsey art space.

---

**03 NOVEMBER, 17.30**

**White collar crime: How to spot an insider trader**

Professor Marcin Kacperczyk unmasks the illegal traders making billions of pounds on dodgy deals and gives tips on catching them out.

**09 NOVEMBER, 18.00**

**The Art of the Start**

Yonatan Raz-Fridman from Kano Computes describes how he took an idea and became one of Kickstarter’s most successful campaigns ever.

**10 NOVEMBER, 18.00**

**The CMB: A universe scale laboratory**

Professor Carlo Contaldi takes a look back on 20 years of discoveries in the most important data set in cosmology for his inaugural lecture.

**16 NOVEMBER, 17.15**

**Patient Zero to PrEP: HIV past, present & future**

Professor Mark Nelson describes the lessons for tackling HIV that the developing world can learn from the developed world.

**17 NOVEMBER, 17.30**

**On Human-Agent Collectives**

Imperial’s Vice Provost for Research, Professor Nick Jennings explore the science of Human-Agent Collectives in real-world applications including smart grids, disaster response and citizen science.

---

**15 NOVEMBER, 10.00**

**The Centre for Blast Injury Studies’ 2016 annual networking event**

Join us for an inspiring multidisciplinary programme presentations delving into regenerative and rehabilitative medicine.

---

**Stay in the loop**

View www.imperial.ac.uk/events for more details about these events and others. To sign up for regular updates about Imperial events please email: events@imperial.ac.uk