

**Imperial College  
London**



**Annual Report and Accounts  
2013–14**

## OUR MISSION

Imperial College London embodies and delivers world class scholarship, education and research in science, engineering, medicine and business, with particular regard to their application in industry, commerce and healthcare. We foster multidisciplinary working internally and collaborate widely externally.

### On the cover:

*Undergraduate Ememobong Udom (Natural Sciences) working in the zebrafish lab. She is researching the impact of a Western-style diet on inflammation and immunoregulation using zebrafish. To read more about how researchers at Imperial work with animals, please visit [www.imperial.ac.uk/research/animal-research](http://www.imperial.ac.uk/research/animal-research)*

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*Keith Wolstenholme, Workshop Technician in the Faculty of Engineering, with Tereze Gaile, recipient of a President's Scholarship.*

# Imperial at a glance

14,735

Full-time students at Imperial College London in 2013–14

£449m

Imperial's 2013–14 income from research grants, research contracts and HEFCE's research grant

2nd

Imperial's position in the QS World University Rankings 2014–15

£54m

The amount secured through fundraising in 2013–14

3,692

Number of full-time equivalent academic and research staff at Imperial

4.0%

Percentage by which the College's income increased during 2013–14

# President's foreword



Since becoming President in September 2014, I have been consistently impressed by the quality and passion of Imperial's staff, students, alumni, friends and partners. Imperial people are at the forefront: pursuing research from the subatomic to the interstellar; driving innovation from student hackspace start-ups to major partnerships with industry. Given the range and scale of Imperial's work, no annual report could hope to capture more than a snapshot of this brilliant institution. I outline in this foreword a few of the themes highlighted in our achievements in 2013–14 and informing our work to define Imperial's strategy for the years ahead.

The achievements of the past year are testament to Sir Keith O'Nions, my predecessor, who led the College for the period covered by this report. I am grateful to him for assembling a wonderful leadership team, supported by our outstanding Council led by Baroness Manningham-Buller. They have made many far-sighted decisions.

## LEADERSHIP

One of the important decisions made by Imperial College London was to change the leadership structure to a new President and Provost model. Professor James Stirling, who joined us in August 2013, led the way as the first Provost. He ably leads the College's core academic mission of education, research and translation. This allows me, as President, to devote more time to the College's strategy and engagement with government, industry, philanthropists and alumni.

James has recruited Professor Tom Welton, Head of the Department of Chemistry to become the new Dean of the Faculty of Natural Sciences beginning January 2015. Professor Maggie Dallman, who has led the Faculty since 2008, will now take up appointment as Associate Provost (Academic Partnerships). We are also fortunate to have

Professor Dot Griffiths, former Dean of the Business School, accept the Provost's invitation to serve as his envoy for gender equality.

## ACADEMIC EXCELLENCE

The desire to achieve academic excellence and push the boundaries of discovery and innovation underpins all that we do at Imperial, and is our motivation as we seek to advance over the coming years.

We are proud to celebrate a broad and diverse range of academic achievements this year. Whether it's Professor Sir John Pendry's Kavli prize-winning work on metamaterials or our Business School's work with the UN to tackle food shortages, the Imperial community is pushing the boundaries of discovery to make the world a better place.

In particular, Imperial's ability to turn ideas into inventions that improve quality of life and the quality of our environment has been repeatedly highlighted in the past year. One such recent innovation is the 'iKnife' developed by Dr Zoltan Takats and colleagues in the Department of Surgery and Cancer. This 'intelligent knife' allows surgeons to rapidly and accurately detect cancerous tissue. He is now working with Waters, a major US

corporation, to bring the iKnife to market so that patients can benefit as soon as possible.

## GREAT PEOPLE

Our academic successes would not be possible without the combined efforts of our community of students, researchers, professional staff, alumni, collaborators and supporters. Supporting and developing this community will be crucial for our continuing achievement.

Our brilliant, ambitious, and cosmopolitan students propel Imperial forwards. I have met students who balance their academic work with starting companies, achieving international sporting success, serving their community and mentoring fellow students. I encourage all of our friends and alumni to visit Imperial and meet our inspirational students.

We are increasing our investment in the student experience to help our students to unleash their creativity, independence and curiosity. Our Vice Provost (Education) Professor Debra Humphris is leading a team implementing a plan to nurture innovation in teaching and learning, enhance academic and professional services, and cultivate our world-class student community. Imperial's impressive new halls of residence, currently under construction at One Victoria Road, demonstrate one facet of this commitment.

It is no wonder that our graduates go on to greater career success than those from any other UK university. Few universities have such an inventive, international and high-achieving alumni network. It has been a pleasure to meet so many of our graduates to gain their insights into Imperial's past and future. We can, and will, do even more to engage this inspiring community.

We are also making College a more welcoming environment for everyone. Imperial College London is one of a handful of universities to have achieved Athena SWAN silver status for supporting women in science, with 13 individual departments

also receiving awards including the distinction of gold status for Chemistry. We also have grassroots campaigns like Imperial 600, supporting LGBT staff, and we are proud to be the first UK university to receive GIREs recognition for our commitment to equal opportunities for transgender staff. I am determined to build upon this momentum.

### COLLABORATION

The world's most complex challenges cannot be solved by working in isolation. Imperial is distinctive for its strength in engaging partners across disciplines, sectors and nations to create discoveries and innovations leading to transformational change.

As just one example, this year we launched the Data Science Institute directed by Professor Yike Guo. This institute works across the four faculties with global university and corporate partners, like KPMG, Huawei, Intel and Zhejiang University, to create and find value in an increasingly data-rich world.

This is one more way we augment our multidisciplinary approach to grand challenges. Imperial's Institute of Global Health Innovation, Energy Futures Lab, and Grantham Institute are among those having an enormous impact year-after-year.

### IMPERIAL WEST

Imperial West, the College's 23-acre innovation district, provides us with the opportunity to bring together teaching and research activities with ventures complementary to our core academic mission such as corporate co-location and space for start-up and scale-up companies. It also provides us with the ability to unlock other parts of our estate for revitalisation and renewal.

We have begun to realise our vision. Imperial West is connected to the capital's TechCity and MedCity (see page 13) ecosystems. The campus already hosts over 70 start-ups and spinouts, is the home to 600 postgraduates and construction of our flagship Research and Translation Hub is under way.

Entrepreneurs, investors and inventors alike are attracted by the possibilities we are creating at Imperial West, and I look forward to their rapid attainment in the months ahead.

### INVESTMENT IN BIG IDEAS

Imperial is a great university and we intend to maintain our financial strength to support academic excellence in research and teaching while providing space for growth and new ventures.

The College fulfils its mission thanks to the support from a broad range of sponsors. The Government, the Funding Councils, corporate, charitable and philanthropic supporters and our students all enable us to deliver excellence.

This was a record-breaking year for philanthropy at the College with pledges exceeding £50 million and donors numbering 5,400. These donors create opportunities for Imperial students and scholars and improve the lives of the very many people who benefit from our work.

Our broad and engaged community of donors support 110 scholarship students who joined the College this autumn. They are joining a university of big ideas due to a visionary £40 million gift from Michael Uren (Mechanical Engineering, 1943) and his Foundation. The Michael Uren Biomedical Engineering Research Hub will co-locate engineers, scientists and clinicians with corporations and entrepreneurs at Imperial West to develop new and affordable medical technologies, building on Imperial's world-leading expertise in biomedical engineering. The exciting research is already underway and we look forward to reporting on the opening of the Hub in the coming years.

It is inspiring to wake up every day to Imperial's greatness. In these pages you will see some of that greatness. I hope that you will keep informed throughout the year and help us as we strive to be even greater still.

Professor Alice Gast  
President

### SENIOR STAFF



**Professor Alice Gast,**  
President  
(from 1 September 2014)



**Professor Sir Keith O'Nions,**  
President & Rector  
(until 31 August 2014)



**Professor James Stirling,**  
Provost



**Professor Anand Anandalingam,**  
Dean, Imperial College  
Business School



**Professor Donal Bradley,**  
Vice-Provost (Research)



**Professor Maggie Dallman,**  
Dean, Faculty of Natural  
Sciences



**Professor David Gann,**  
Vice-President (Development  
and Innovation)



**Mr Simon Harding-Roots,**  
Chief Operations Officer



**Dr Simon Hepworth,**  
Director of Enterprise



**Professor Debra Humphris,**  
Vice-Provost (Education)



**Professor Dermot Kelleher,**  
Vice-President (Health);  
Dean, Faculty of Medicine



**Ms Louise Lindsay,**  
Director of Human Resources



**Professor Jeff Magee,**  
Dean, Faculty of Engineering



**Mr Tom Miller,**  
Director of Communications  
and Public Affairs



**Mr John Neilson,**  
College Secretary  
and Registrar



**Professor Stephen Richardson,**  
Associate Provost  
(Institutional Affairs)



**Mr Muir Sanderson,**  
Chief Financial Officer

# Five-year summary of key statistics

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	2014 £m	2013 £m	2012 £m	2011 £m	2010 £m
<b>INCOME AND EXPENDITURE</b>					
Funding Council grants	161	169	172	169	172
Academic fees and support grants	197	186	163	138	121
Research grants and contracts	351	330	314	299	297
Other income	148	126	108	94	89
Endowment and investment income	7	13	8	6	15
Less: share of income from joint ventures	(10)	(2)	–	(1)	(1)
<b>Net income</b>	<b>855</b>	<b>822</b>	<b>765</b>	<b>704</b>	<b>693</b>
Total expenditure	794	755	702	660	651
<b>Surplus from ordinary activities</b>	<b>61</b>	<b>67</b>	<b>63</b>	<b>44</b>	<b>42</b>
Share of results in joint ventures and associates	(1)	(2)	(3)	(2)	–
Minority interests	–	–	–	1	(1)
<b>Surplus before exceptional items</b>	<b>60</b>	<b>65</b>	<b>60</b>	<b>43</b>	<b>41</b>
<b>Surplus for the year retained within general reserves</b>	<b>86</b>	<b>87</b>	<b>61</b>	<b>95</b>	<b>41</b>

## BALANCE SHEET

Fixed assets	1,324	1,145	1,030	920	869
Endowment assets	98	97	79	76	59
Net current assets/(liabilities)	(53)	43	64	39	(3)
Long term creditors and provisions	(271)	(283)	(265)	(192)	(180)
<b>Net assets</b>	<b>1,098</b>	<b>1,002</b>	<b>908</b>	<b>843</b>	<b>745</b>

## CAPITAL EXPENDITURE (IN-YEAR CAPITAL EXPENDITURE ADDITIONS)

Externally funded	28	20	30	44	77
Internally funded	178	86	47	33	38
Finance leases	–	18	75	–	–
<b>Total in-year capital expenditure additions</b>	<b>206</b>	<b>124</b>	<b>152</b>	<b>77</b>	<b>115</b>
<b>HEFCE capital grant received</b>	<b>30</b>	<b>14</b>	<b>14</b>	<b>18</b>	<b>42</b>

## LIQUIDITY

Cash and cash equivalent	275	317	331	261	189
Bank loans	(148)	(154)	(160)	(166)	(172)
Finance leases	(93)	(93)	(75)	–	–
<b>Net cash</b>	<b>34</b>	<b>70</b>	<b>96</b>	<b>95</b>	<b>17</b>

## STUDENT NUMBERS

Full-time equivalent students – undergraduate	8,931	8,834	9,080	8,885	8,608
Full-time equivalent students – postgraduates	5,804	5,580	5,262	5,079	4,865
Visiting students / other	1,196	1,209	1,229	1,251	1,094
<b>Total</b>	<b>15,931</b>	<b>15,623</b>	<b>15,571</b>	<b>15,215</b>	<b>14,567</b>
Average number of full-time equivalent staff	7,240	6,731	6,648	6,736	6,613
Staff costs as a percentage of expenditure	53%	52%	53%	55%	55%



# Financial review



Mr Muir Sanderson, Chief Financial Officer

## KEY HIGHLIGHTS

The College continued to grow in 2013–14 with research volumes, student numbers and overall income all increasing at a faster rate than inflation. We remain by sector standards financially strong, generating a good operating surplus and cash flow. Our broader strategy has already delivered benefits with returns from our investments in Imperial Innovations and Imperial West. There are potential risks on the horizon, for example political uncertainty and over-reliance on fee income, but it would still be relatively straightforward to plot a financial path that ensured Imperial was a good university in perpetuity.

However good is not enough; Imperial is a great university and intends to remain so. Imperial achieves this greatness by continually punching above its weight. We lack the depth of financial resource available to our global peers, yet our academic community continues to excel. In research, we are second in the worldwide QS rankings; in teaching we have more postgraduate EPSRC Centres of Doctoral Training than any other UK university; in translation, we are incubating 34 new businesses, a 50% increase on last year.

The aim of our financial strategy is to ensure that this level of academic performance can be sustained or exceeded. Our actions back up this strategy. For instance, the College invested £178 million of its own resources in fixed assets in 2013–14 to give it the space needed to deliver collaborative, leading-edge education and research. This level of investment will need to continue; being the best is not cheap. We all – staff, students, industry and government partners, alumni, donors – will have a role to play in ensuring that Imperial stays great.

Key financial highlights for the year 2013–14 are:

- The surplus on ordinary activities was £61 million, representing 7.1% of income;
- There were three exceptional items, two related to the College's shareholding in Imperial Innovations and one to a long lease granted over land at White City, resulting in a total surplus retained within general reserves of £86 million;
- The value of the College's fixed assets increased by £179 million, the largest year-on-year increase recorded;
- The College remains highly cash generative, delivering £120 million from operating activities within the year;
- The market value of the Endowment grew by £80 million to £434 million.

## INCOME

Total College income for the year was £855 million, an increase of 4% over the previous year.

Income analysis	2014 £m	2013 £m	Change %
Funding Council grants	161.4	168.9	-4.4
Academic fees and support grants			
Home and EU students (full-time)	53.9	48.2	11.8
Overseas students	108.3	103.9	4.2
Other	34.6	34.2	1.2
	196.8	186.3	5.6
Research income			
UK research councils	108.3	102.3	5.9
UK charities	64.7	66.4	-2.6
UK industry	21.0	23.2	-9.5
European Union and overseas	96.9	86.9	11.5
Other	60.0	50.7	18.3
	350.9	329.5	6.5
Other income	148.0	126.6	16.9
Endowment and investment income	7.4	12.5	-40.8
Less: share of income from joint ventures	(10.0)	(1.8)	455.6
<b>Total income</b>	<b>854.5</b>	<b>822.0</b>	<b>4.0</b>

# Financial review

Movements in the main components of income during the year were as follows:

- Funding Council grants from the Higher Education Funding Council for England (HEFCE) fell by £7.5 million to £161 million. The recurrent teaching grant fell by £6.2 million as a further cohort of new regime students joined the College, though this lower grant was offset by higher tuition fee income. The recurrent research grant fell by £1 million to £98 million following a slight dip in the College's share within the sector of research funded by charities and industry. The capital grant received from HEFCE was higher than in the previous year at £30 million compared to £14 million, as it included the first instalment of a new Research Partnership Investment Fund award.
- Overall student numbers were up by around 300 (2%), mainly driven by more overseas students joining College for postgraduate study.
- Research income grew by 6.5% to £351 million. The slight reduction in volume recorded from UK charities and industries was more than compensated for by growth in European Commission and other overseas funded research.
- Other income rose by £21 million to £148 million. Rental income rose following the acquisition of certain property assets as part of the land purchase at White City. Occupancy rates at new postgraduate halls were higher than the previous year, generating an additional £3.2m of income. The remainder of the year-on-year increase was mainly the result of the recognition of additional income from three medical related overseas collaborations.

## EXPENDITURE

Total expenditure increased to £794 million, compared to £755 million in the previous year. Staff costs grew by £29 million to £421 million, broadly in line with the growth in staff numbers, representing 49% of income. Around a third of the year-on-year increase was funded by external research awards.

Within other operating expenses, premises-related expenses were around £6.2 million higher than in the previous year due to the College spending more on refurbishment. The costs of central support services grew mainly as a result of increased planning related activity associated with the expansion of the College's estate (£2.1 million) and higher expenditure on IT-related activity (£2.1 million).

Expenditure analysis	2014 £m	2013 £m	Change %
Staff costs			
Academic departments incl. consultancies	186.5	171.4	8.8
Research grants and contracts	159.4	149.2	6.8
Other	75.5	72.3	4.4
	<b>421.4</b>	392.9	7.3
Depreciation	58.0	58.4	-0.7
Other operating expenses			
Academic departments incl. consultancies	43.8	69.4	-36.9
Research grants and contracts	111.9	107.1	4.5
Other	147.3	115.9	27.1
	<b>303.0</b>	292.4	3.6
Interest and other finance costs	11.4	11.2	1.8
<b>Total expenditure</b>	<b>793.8</b>	754.9	5.2

## THE ENDOWMENT

The Endowment's role is to provide a regular source of income to support the College's objectives. It is sub-divided into three distinct portfolios:

- Unitised Scheme – a unit trust vehicle for College, Faculties and Departments to invest endowments and unfettered income to produce returns for the long term;
- Non-Core Property – a portfolio containing around 120 operational and developmental properties which College has determined are not core to the academic mission; and
- Strategic Asset Investments – containing College's shareholding in Imperial Innovations and other restricted equity holdings.

During the year, the market value of the Endowment increased by £80 million (22%) to £434 million on 31 July 2014. The main driver of this increase was the Endowment's Strategic Asset Investment portfolio which increased in value by £54 million (68%) to £132 million as a result of the Imperial Innovations shareholding. In July, the Endowment sold 2.5 million shares in Imperial Innovations for cash proceeds of £10 million as part of Imperial Innovations' £150 million fund raising. The remaining 26.7 million shares (representing just over 20% of the total) were valued at £129 million at 31 July 2014 (up from £78.9 million at 31 July 2013 despite the share sale). Imperial Innovations continues to be an associate of the College.

The Non-Core Property portfolio market value increased by £14m (13%) to £118m over the year following a portfolio wide revaluation exercised undertaken by Savills. A formalised revaluation schedule has been put in place to ensure that each property is subject to quarterly valuations linked to a specific index with at least one external revaluation every 5 years.

The Unitised Scheme, which is managed against a five year performance target of RPI+4%, increased in value by £6m (4%) over the year to £156m. Over the 5 year period ended 31 July 2014, the Unitised Scheme has returned 50.0% against an RPI+4% target of 45.8%.

## EXCEPTIONAL ITEMS

There were three exceptional items during the year, two of which related to Imperial Innovations. As noted above, the College sold shares in Imperial Innovations during the year, which generated a reported profit of £5.4 million. Although the share of the company that the College owned reduced, the fact that the net assets in the company grew significantly through the fundraising resulted in a deemed profit of £17 million on consolidation.

The sale of a 150 year lease over a portion of the land at the Imperial West site in White City generated a profit of £2.7 million. The College is likely to lease out further portions of land at the now extended Imperial West site over time in order to help fund the development of the academic related buildings.

# Financial review

## CAPITAL EXPENDITURE

The College acquired a further 12 acres of land at Imperial West at a cost of £138 million, bringing the total size of the site to 23 acres. Development will take many years to complete, although planning activity is well underway.

The next building to be constructed will be the Research and Translation Hub, with final commitment being made just before year-end. The research facilities will be developed by College and the connected Translation Hub by a third party on the land they have leased from College and that gave rise to one of the exceptional gains of £2.7 million in 2013–14. The target completion date for the new building is 2016–17.

Design work has also started at Imperial West on the new Michael Uren Biomedical Engineering Research Hub made possible by an unprecedented £40 million donation (£4 million recognised in 2013–14) from Michael Uren OBE, a 1943 Imperial graduate in Mechanical Engineering. The target completion date is early 2019.

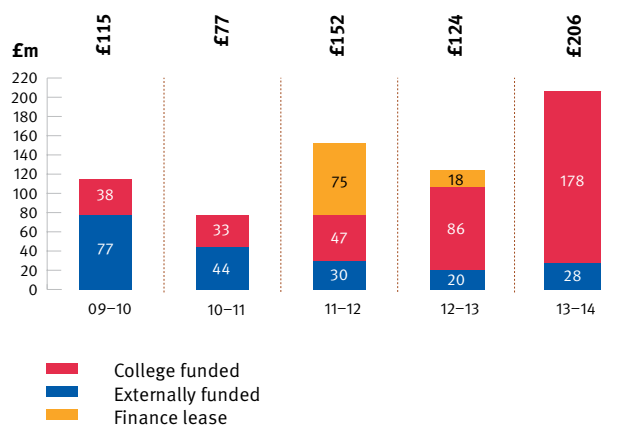
The other main items of expenditure during 2013–14 included further work on the refurbishment of the Mechanical Engineering building at South Kensington and the completion of the refurbishment of the student accommodation at Wilson House.

## BALANCE SHEET

By year end the value of the College's net assets had grown by £96 million to £1.1 billion. As well as the investments in tangible fixed assets noted above, the College recorded an overall increase of £28 million in its fixed asset investments, including a further £8.4 million tranche of its investment in the Francis Crick Institute.

The total cash position including short term deposits fell by £43 million over the year, which combined with increases in short-term creditors of £68 million and debtors of £18 million resulted in the net current asset position moving from a positive £43 million to a negative £53 million. The rise in debtors mainly reflected the higher level of fee income billed to students in advance of the new academic session and this was exactly offset by a corresponding short-term creditor. The College continues to benefit from favourable working capital terms on its research work, with payments in advance growing by 13% and representing £28 million of the £68 million increase in short-term creditors. The College will continue to monitor the net current asset position carefully, though it does not have any immediate concerns given the strength of the College's research order book and that no material changes to payment terms are anticipated at this time.

## Capital expenditure



## CASH AND LIQUIDITY

<b>Cash flow summary</b>	<b>Cash £m</b>	<b>Short term investment £m</b>	<b>Total £m</b>
At 1 August 2013	207.1	110.0	317.1
Cash from operations	120.0	–	120.0
Capital expenditure	(202.8)	–	(202.8)
Purchase/receipt of investments	(9.9)	–	(9.9)
Disposal of investments and fixed assets	13.3	–	13.3
Deferred capital grants	47.1	–	47.1
Returns on investments	7.0	–	7.0
Debt repayments and servicing	(17.2)	–	(17.2)
Sub total	(42.5)	–	(42.5)
Management of liquid resources	110.0	(110.0)	–
Net movements	67.5	(110.0)	(42.5)
<b>As at 31 July 2014</b>	<b>274.6</b>	<b>–</b>	<b>274.6</b>
Cash at bank and in hand	262.6	–	262.6
Cash in endowment assets	12.0	–	12.0
	<b>274.6</b>	<b>–</b>	<b>274.6</b>

Cash and short term deposits at the end of the year, although lower than the previous year, still amounted to £275 million despite the record level of investment of the College's own resources on tangible fixed assets during the year. The continuing strong cash flow from operations, boosted again by a net working capital inflow, supported the cash position. When the long term loans and finance leases that are outstanding are included, the College's net cash at year-end remained positive at £34 million.

## SUMMARY

It is vital that we continue investing in Imperial's world-class research and education; attracting and retaining the best staff and students and providing them with the infrastructure the College's pre-eminent position demands. Imperial cannot do this alone. Collaborating with industry, government and academia will be essential and part of the new campus at Imperial West will be given over to just these sorts of partnerships which will be central to our financial and academic success. Equally important are those who care about and value Imperial: our worldwide network of alumni and donors who recognise the contribution to the world that Imperial can make.

Although the operating surplus was similar to the previous year, we recognise that some project related income in 2013–14 was one-off in nature and maintaining this sort of level of surplus in the years ahead will be a challenge given the environment in which we operate:

- The market for the best students and academics is increasingly competitive with the cost of land and housing in London being a particular challenge;
- Tuition fee income from our home and European undergraduates is not inflation linked, leading to a substantial funding reduction in real terms as time goes by;
- The looming election in the UK and the continued difficult national fiscal situation mean that substantial political uncertainty remains about future levels of government funding;
- The deficit in the USS pension scheme has been well publicised and is likely to result in additional costs for employers who have already had to incorporate increases in national insurance contributions into their financial projections.

Our financial strategy is intended to meet this challenge. Imperial's journey to sustainable greatness continues, we have done much but there is still more to be done.

Muir Sanderson  
Chief Financial Officer



*Sir Keith O'Nions conducts Tchaikovsky's 1812 Overture at a June 2014 concert to mark his retirement.*



Michael Uren OBE, whose philanthropic donation to the College will facilitate the construction of a new biomedical engineering centre.

## MICHAEL UREN BIOMEDICAL ENGINEERING RESEARCH HUB

An unprecedented gift of £40 million from Michael Uren OBE is to facilitate the construction of a new biomedical engineering centre at Imperial. Mr Uren, an Imperial graduate (Mechanical Engineering, 1943), founded Civil and Marine Ltd, which became one of the UK's foremost innovators in cement manufacture. Multi-million support for Imperial from Mr Uren and his foundation in the past facilitated the creation of the MSK lab, which researches aspects of the musculoskeletal system. The Michael Uren Biomedical Engineering Research Hub will be located at the College's new campus for research and innovation, Imperial West. It will bring together world-class engineers, scientists and clinicians undertaking life-changing research into new and affordable technology.

## MEDCITY

Imperial welcomed the Mayor of London, Boris Johnson, to its Hammersmith Campus to celebrate the launch of MedCity. Modelled on the successful Tech City Investment Organisation, MedCity brings together the leading centres of medical research in London, Cambridge and Oxford to promote the translation of world class research into new healthcare applications for the benefit of patients and the economy. It is funded jointly by the Higher Education Funding Council for England and the Mayor of London's Office.

## BRITISH ROYAL LEGION CENTRE FOR BLAST INJURY STUDIES

His Royal Highness Prince Harry officially opened the Royal British Legion Centre for Blast Injury Studies at Imperial in October 2013. The Centre, which pioneers collaboration between military and civilian clinicians, scientists and engineers, seeks to increase understanding about blast injury patterns, improve treatments and recovery and develop improved techniques for protecting those serving in current and future conflicts. During his tour of the Centre's labs, Prince Harry viewed the Split Hopkinson Bar device, which simulates how shockwaves from roadside blasts affect people at the cellular level, and the shock tube device, which simulates the movement of shockwaves through the air.

## CLOSE TIES WITH KOREA

In a visit to Imperial in November 2013 President of the Republic of Korea outlined her vision for a close partnership with the United Kingdom. President Park Geun-hye was joined by Science and Universities Minister David Willetts at the UK-Korea Creative Economy and Future Science Forum, the landmark science and innovation event during her State Visit to the UK. The programme for the Forum included workshops for academics, investors and entrepreneurs from the UK and Korea to explore collaboration and development in digital cultural content, innovative technologies and cooperation among small and medium enterprises.

## SENIOR LEADERSHIP CHANGES

### Farewell to Sir Keith O'Nions

On 31 August 2014, Sir Keith O'Nions stepped down as President & Rector of Imperial College London. Sir Keith joined the College in July 2008 and became Rector in January 2010. In April 2012, as Imperial transitioned towards a new leadership model, Sir Keith assumed the title of President & Rector. Some of the highlights of his leadership included an increase in research collaborations with international partners; the launch of Imperial West; and the opening of the Lee Kong Chian School of Medicine in Singapore. He is succeeded as President by Professor Alice Gast, who joins Imperial from Lehigh University in the United States.

### A new Dean for LKC Medicine

Professor James Best, a distinguished medical leader whose work has improved treatments for diabetes and kidney disease, was appointed as Dean of the Lee Kong Chian School of Medicine (LKC Medicine) in Singapore. Professor Best joins the School from the University of Melbourne in Australia, where he was Head of the Medical School. He joins Professor Dermot Kelleher, Imperial's Vice-President (Health) and Professor Jenny Higham, Senior Vice-Dean of LKC Medicine, in leading the realisation of the education, research and healthcare goals of this pioneering partnership between Imperial and Nanyang Technological University.

### Excellence in healthcare

Imperial welcomed two new senior figures in the field of healthcare during 2013–14. In February 2014, Dr Tracey Batten was appointed as Chief Executive of Imperial College Healthcare NHS Trust. The Trust is one of England's largest, and it is partnered with Imperial in an Academic Health Science Centre (AHSC) to promote excellence in research, education, translational medicine and patient care. In March, Sir Peter Dixon was appointed as the Chair of Imperial College Health Partners, a partnership organisation which brings together the academic and health science communities across North West London, including Imperial. Under Sir Peter's leadership, the Partnership will continue to work with industry and other sectors to identify new innovations and best practice in patient care.





# Awards and honours

## HONOURING THE IMPERIAL COMMUNITY

### New Year's Honours

Two distinguished Imperial academics were honoured for their achievements and service in the New Year's Honours for 2014. Professor Sir Magdi Yacoub, Professor of Cardiothoracic Surgery, was awarded the Order of Merit, which recognises individuals of greatest achievement in the fields of the arts, learning, literature and science. Emeritus Professor Mary Ritter, former Pro-Rector for Postgraduate and International Affairs and Emeritus Professor of Immunology, was awarded an OBE for services to scientific research and innovation.

### Queen's Birthday Honours

Following their contribution to the prediction and discovery of the Higgs boson, two of Imperial's most renowned physicists were knighted in the Queen's Birthday Honours of June 2014. Professor Sir Tom Kibble's work led to the prediction of the mass-giving particle, while Professor Sir Tejinder (Jim) Virdee led on the design and construction of one of the detectors that found the Higgs boson.

Several other members of the Imperial community were also recognised by the Queen. Sir Philip Dille, a member of the College's Council, was knighted for his services to consulting engineering; Professor Helen Apsimon and Professor Jim Skea were awarded CBEs; Professor Wendy Atkin and Professor John Warner received OBEs and Professor Neil Alford was awarded an MBE.

### Order of the Garter for Chair of Council

Baroness Manningham-Buller, Imperial's Chair of Council, was installed as a Lady Companion of the Most Noble Order of the Garter at Windsor Castle in June 2014. The Order of the Garter is the most senior and the oldest British Order of Chivalry. The 24 knights of the Garter are chosen personally by the Sovereign and the title honours those who have held public office, contributed to national life or served the Sovereign personally.

## RECOGNITION IN ECONOMICS

Professor David Gann CBE, Imperial's Vice President (Development and Innovation), has won the 2014 Tjalling C Koopmans Asset Award. The award acknowledges Professor Gann's "significant

contributions to the field of economics and his everlasting efforts to connect universities with businesses". Previous recipients include Nobel laureates Daniel Kahneman, Robert Merton and Robert Engle, among other leading economists including Nicholas Stern, Jagdish Bhagwati and Richard Thaler.

## REGIUS PROFESSORSHIP

Imperial conferred its Regius Professorship on Professor Chris Toumazou during the College's October 2013 Commemoration Day ceremonies. The Regius Professorship was awarded to Imperial as part of the Queen's Diamond Jubilee celebrations. Professor Toumazou is a pioneer in the field of biomedical engineering: in his research he has developed cochlear implants for born-deaf children, an artificial pancreas for type 1 diabetics and wireless heart monitors for personalised ambulatory health monitoring. In June 2014, Professor Toumazou was honoured once again when he won the European Inventor Award, becoming the first British winner of a prize in the European Patent Office's contest since 2008.

## SCIENCE HONOURS FOR IMPERIAL RESEARCHERS

Sixteen researchers from the College were recognised by the Royal Society, the Academy of Medical Sciences, the Royal Society of Chemistry and the European Molecular Biology Organisation (EMBO). Four academics were granted fellowship of the Royal Society in recognition of their contributions to science and six academics were elected to the Fellowship of the Academy of Medical Sciences for their work in advancing medical science. Of the 60 prizes and awards announced by the Royal Society of Chemistry, five went to Imperial chemical scientists; and Professor Vincent Savolainen (Life Sciences) was elected a member of EMBO.

## CHINESE ACADEMY OF SCIENCES HONOUR

Professor Jeremy Nicholson, Head of the Department of Surgery & Cancer, has been elected Einstein Professor of the Chinese Academy of Sciences. The prestigious title, awarded annually to distinguished international scientists, aims to foster links, collaboration and exchange between the Chinese Academy of Sciences – China's



*Emeritus Professor Mary Ritter received an OBE for services to scientific research and innovation.*

national scientific body – and the world's leading researchers and institutions. As part of the Professorship Programme, Professor Nicholson will conduct a number of lecture-tours and academic discussions at institutions across China in order to enhance the training of future generations of Chinese scientists.

## QATARI RECOGNITION FOR LORD DARZI

Professor the Lord Darzi of Denham has been awarded the highest honour available in Qatar to foreign nationals. Lord Darzi was awarded the Sash of Independence in recognition of his continuing contribution to developing the health sector in Qatar. The Sash is awarded only to senior members of government, to Qatari citizens for outstanding service to the country and to foreigners for exceptional services to the country. Lord Darzi is a member of the Supreme Council for Health board, an international advisory board for the academic health system in Qatar. He has been integral to the implementation of the country's national health strategy.

## BRITISH ACADEMY FELLOWSHIP FOR BUSINESS SCHOOL ACADEMIC

Professor Carol Propper of Imperial College Business School has been elected a Fellow of the British Academy, the national institution for the humanities and social sciences. Already a recipient of a CBE for her services to social science, Professor Propper is an expert in the use of markets and financial incentives to improve the delivery of public services, such as healthcare.



*Dr Sarah Fidler with PhD student Andrew Broadbent. Dr Fidler is one of the leaders of a new trial to test a possible cure for HIV infection.*

# Research

## Natural sciences

### KAVLI PRIZE IN NANOSCIENCE

Professor Sir John Pendry has been awarded the 2014 Kavli Prize in Nanoscience in honour of his contributions to nano-optics and the field of metamaterials. He shares the prize, worth £1 million, with two other researchers in the field. In nano-optics, he has explored how light behaves on a scale of one billionth of a metre, and pioneered research that generated the revolutionary theory of the perfect lens. In metamaterials, Sir John's research has generated a new series of manmade materials with unusual properties that can be manipulated and used for potentially transformative impacts. Sir John has been carrying out research at Imperial's Physics Blackett Laboratory for over 30 years, and he is the College's first recipient of the Kavli Prize.

### BACTERIA TO GENERATE RENEWABLE FUEL ALTERNATIVE

Researchers from Imperial and the University of Turku in Finland have engineered the harmless gut bacterium *E.coli* to generate renewable propane. This team used *E.coli* to interrupt the biological process that turns fatty acids into cell membranes. By using enzymes to channel the fatty acids along a different biological pathway, the bacteria made engine-ready renewable propane instead of cell membranes. The research, which was funded by a grant from the European Research Council and published in *Nature Communications*, is a step towards commercial production of a fuel that could one day provide an alternative to fossil fuels.

### CONSERVING BRAZIL'S ATLANTIC FOREST

Brazil could conserve its valuable Atlantic Forest by investing just 0.01 per cent of its annual GDP to pay private owners to set aside land for reforestation, according to a new study led by Dr Cristina Banks-Leite (Life Sciences). The forest once covered an area of nearly 1.5 million square kilometres, but it is now home to more than 130 million people, and covers just 160,000 square kilometres. Dr Banks-Leite's research suggests that \$198 million per year would permit the conservation of existing tracts, together with the majority of species and many of the benefits that come from the forest's ecosystem, such as pest control and pollination.



*A green-headed tanager, one of the most colourful birds of the forests of Southeastern Brazil. Imperial research has explored how Brazil can conserve its Atlantic Forest.*

### HERBIVORES MITIGATE BIODIVERSITY LOSS

Introducing rabbits, deer and kangaroos to grasslands can offset nitrogen pollution and help reduce biodiversity loss, according to new research undertaken at the College. Nitrogen pollution from fertilisers and burning fossil fuels has become a growing environmental challenge, with the amount of nitrogen moving through ecosystems doubling over the past 50 years. The research, led by Professor Mick Crawley (Life Sciences) and published in the journal *Nature*, showed that hoofed mammals such as cattle and marsupials such as kangaroos had the greatest impact, especially in a cool, dry seasonal climate or in consistent warm temperatures.

## Medicine

### TRIAL FOR POTENTIAL HIV CURE

Scientists and clinicians from five leading UK universities are to begin a groundbreaking trial to test a possible cure for HIV infection. The work of the CHERUB collaboration – an alliance of HIV researchers at the Universities of Oxford and Cambridge, Imperial College London, UCL and King's College London – will be funded by a £1.7 million grant from the Medical Research Council. The collaboration is led by Dr Sarah Fidler (Medicine) of Imperial and Dr John Fraser of Oxford. Efforts to cure HIV in the past have been thwarted by the virus's ability to lie dormant inside blood cells without being detected. The new therapy combines standard antiretroviral drugs with two new weapons: a drug that reactivates dormant HIV, and a vaccine that induces the immune system to destroy the infected cells. Fifty patients in the early stages of HIV infection

will take part in the trial. The researchers hope that within months, the stores of hidden HIV in these patients – called the HIV reservoir – will be significantly reduced.

### THE IMPACT OF AIRCRAFT NOISE

Researchers at Imperial and King's College London have found that risks of hospital admissions and deaths from stroke and heart disease are higher in areas with high levels of aircraft noise. The study, led by Dr Anna Hansell and Professor Paul Elliott (School of Public Health), compared data on day- and night-time aircraft noise with hospital admissions and mortality rates among a population of 3.6 million people living near Heathrow airport. The risks were around 10 to 20 per cent higher in areas with the highest levels of aircraft noise compared with the areas with least noise. The new findings raise the possibility that aircraft noise may be a contributing factor to these conditions.

### STATINS COULD TREAT ADVANCED MULTIPLE SCLEROSIS

Research published in *The Lancet* suggests that statins may provide doctors with an unlikely new weapon with which to slow the progression of multiple sclerosis (MS). The two-year clinical trial, led by Dr Richard Nicholas (Medicine) and Dr Jeremy Chataway of UCL, involved 140 patients with secondary progressive MS, a form of MS that thus far has proved challenging to alleviate. Results indicate that the drug simvastatin slowed brain shrinkage, which is thought to contribute to patient impairments. Supporting this finding, patients on simvastatin achieved better scores on movement tests and questionnaires that assess disability than patients taking a placebo.

## PROGRESS TOWARDS A UNIVERSAL FLU VACCINE

A study involving over 340 participants has allowed researchers to move closer to developing a universal flu vaccine. The study, which began in 2009 at the start of the swine flu pandemic, asked volunteers to donate blood and report any flu symptoms over the following two flu seasons. The team, led by Professor Ajit Lalvani of the National Heart and Lung Institute, found that those who avoided severe illness had more CD8 T cells, a type of virus-killing immune cell, in their blood at the start of the pandemic. The findings suggest that a vaccine that could make the body produce more CD8 T cells would protect against current and new viruses, helping to prevent future pandemics.

## A NEW HORMONE FOR STIMULATING OVULATION

For women undergoing IVF treatment, doctors typically administer the hormone hCG to stimulate ovulation, which has a risk of overstimulating the ovaries, with potentially life-threatening consequences. Now scientists at the College, working in collaboration with clinicians at Imperial College Healthcare NHS Trust, have developed a new and potentially safer method to stimulate ovulation in women undergoing IVF treatment. Twelve babies have been born after their mothers were given an injection of the hormone kisspeptin to make their eggs mature, following a test on 53 healthy volunteers at Hammersmith Hospital. Kisspeptin is a naturally occurring hormone that stimulates the release of other reproductive hormones inside the body and it breaks down more quickly than hCG, reducing the risk of overstimulation.

## REDUCING PAIN FOLLOWING SHINGLES

Imperial researchers have found a new drug treatment for chronic pain in patients who have had shingles. It is hoped that the drug might also be effective against other causes of pain caused by nerve damage, such as diabetes, HIV, nerve injury and cancer chemotherapy, as it addresses a mechanism that is not targeted by any existing therapies and has fewer side effects. The study was led by Professor Andrew Rice, from the Department of Surgery and Cancer at Imperial, in partnership with Spinifex Pharmaceuticals.



Andrew Burton, Professor Chris Hankin and Dr Donal Simmie of the Institute for Security Science and Technology.

## Engineering

### PROTECTING VITAL SYSTEMS

At the end of 2013, the College announced the establishment of the Research Institute into Trustworthy Industrial Control Systems, to be directed by Professor Chris Hankin. Researchers at the Institute will focus on averting cyber-attacks and other threats to vital systems that control the UK's industry and infrastructure through the development of better procedures and technologies. Working alongside Government and industry, the team will also identify how a lone cyber-attack on one business or utility could have a knock-on effect, affecting groups of businesses 'downstream', which could lead to impacts on the UK's infrastructure as a whole. The Institute is jointly funded by the Engineering and Physical Sciences Research Council and the Cabinet Office.

### DEVELOPING THE NEXT GENERATION OF SUSTAINABLE GAS TECHNOLOGIES

A collaborative centre of excellence for research, technology and education in gas sustainability has been established by the College and BG Group, a leading organisation in the exploration and production of liquified natural gas.

The Sustainable Gas Institute, led by Professor Nigel Brandon, will translate research into practical solutions for the energy industry, the international research community, policy makers and investors, at a time when energy security and global warming are at the forefront of the global agenda.

### INNOVATIVE CLOTHING FOR SPORTSPEOPLE

Postgraduate students from the MA/MSc courses in Innovation Design Engineering and Global Innovation Design, offered jointly by Imperial and the Royal College of Art, have developed 'bruise trousers' to help people with paralysis detect potential injuries after sport more easily. The trousers consist of light-fitting, breathable Lycra trousers and pressure-reactive film. Pockets sewn into the trousers contain strips of the film, which is typically used in industry to detect variations in pressure. When an impact occurs, the film registers it by generating a magenta stain, with the intensity of the colour reflecting the strength of the impact. For athletes paralysed from the waist down, the trousers offer a means of assessing the severity of internal and external injuries that otherwise would not be visible.

## ROBOTS FOR THE REAL WORLD

A £5 million collaboration between Imperial and Dyson, a leading technology company, is to fund the Dyson Robotics Laboratory at the College. Researchers at the Laboratory will focus on developing the next generation of robots, designed to work in the real world through improved vision and computer processing power. These and other technological innovations will allow robots to function beyond controlled environments, such as assembly lines in automotive plants, where they work within a strict set of parameters on repetitive tasks. The work undertaken in the Laboratory will build on existing research at Imperial, which has explored the use of computer vision technology to understand and model the real world in 3D.

## EXCELLENCE IN DATA-DRIVEN RESEARCH AND EDUCATION

Data science involves the collecting, processing, managing, analysing, interpreting and visualising of large and complex data sets. It is a field particularly well suited to interdisciplinary collaboration, with applications across areas including healthcare, financial services and city infrastructure. The College's new Data Science Institute, announced in December 2013, will facilitate precisely that interdisciplinarity, bringing academic experts from across Imperial together with research partners to develop new big data technologies. The Institute will also play a critical role in fostering the next generation of data researchers and engineers, through its suite of postgraduate and executive courses.

## Business

### INTERNET SPEED AND PROPERTY PRICES

In the first study of its kind, a team of researchers from Imperial College Business School and the London School of Economics and Political Science have analysed the value of broadband to English households, looking at the link between property prices and broadband availability. The statistics suggest that property prices across the UK increase on average by about three per cent when internet speed doubles. In London,

house hunters may be willing to pay up to eight per cent above the market price for properties in areas offering very fast internet speeds. The researchers analysed over one million properties across England to reach their conclusion, comparing properties that were similar in area, size and access to amenities, but with different quality internet connections.

### A TAX FOR SOFT DRINKS TO TARGET OBESITY

A collaboration involving researchers from Imperial College Business School, Monash University, the University of York and Lancaster University suggests that a tax on sweetened soft drinks could be an effective way to reduce obesity. The study examined Australian consumers of soft drinks and found that adding a 20 per litre tax on sweetened beverages such as soft drinks, cordials and fruit drinks could lead to average individual weight losses of up to 3.7 kilograms per year for consumers who drink these products often. A volumetric tax, based on the volume of drink sold, was shown to be particularly effective in reducing bodyweight among consumers, given that people who consume large amounts of sugary drinks typically buy those drinks in multipacks.

### TACKLING GLOBAL FOOD SHORTAGES

By 2030, 3.9 billion people are expected to be living in cities in the developing world, a shift that will increase the challenges associated with providing affordable and nutritious food. A new project involving researchers from the Business School and the Food and Agricultural Organisation (FAO) of the United Nations is developing a tool to visualise data on food production and shortages. This could help policy makers in developing countries more rapidly identify and fix problems in food production and distribution so that people living in cities get better access to food. The research activities will operate within the framework of the FAO's 'Meeting Urban Food Needs' project, which is designed to raise awareness and support policy decisions by local government authorities on improving the efficiency, dynamism, inclusiveness and resilience of food systems.

### IMPACT OF SOCIAL PRESSURE ON FACEBOOK

Users of social media sites such as Facebook are less willing to recommend products online because of the perceived risks to their reputation. The research, carried out by academics from institutions including the University of Melbourne, Cornell University and Leeds University Business School, should prove valuable to social media companies and marketers who wish to take steps to ensure that consumers do not feel threatened by these online social risks, such as by providing opportunities for consumers to selectively share their opinions with members of their social network.

### WIND FARMS A WISE CHOICE FOR INVESTMENT

Research from Imperial College Business School suggests that wind turbines can remain productive for up to 25 years, making wind farms a good long-term choice for energy investors. This contradicts the arguments of some opponents of wind power, who have argued that aging turbine technology could need replacing after as little as ten years. In the new study, Professor Richard Green and Dr Iain Staffell of the School carried out a comprehensive nationwide analysis of the UK fleet of wind turbines, using local wind speed data from NASA. Findings indicated that the UK's earliest turbines, built in the 1990s, are still producing three-quarters of their original output after 19 years of operation.

Wind farms have also been the subject of research from the Faculty of Engineering. A global assessment of the world's wind farms indicates that after blade failure, fire is the leading cause of accidents in wind turbines. The Imperial researchers, in collaboration with academics from the University of Edinburgh and SP Technical Research Institute of Sweden, found that up to ten times more fires occur in wind turbines than are being reported. The team recommended several strategies to reduce fire incidents, thereby reducing the considerable economic impact on the wind farm industry.



# Education

## STRATEGIC THINKING

In October 2013 the College launched its Education and Student Strategy and Action Plan, setting out its ambitions for enhancing the education and student experience for the next three to five years. Hundreds of staff, students, alumni and critical friends helped to develop the Strategy, which was led by Professor Debra Humphris, Vice-Provost (Education). The strategy sets out 24 action points, designed to ensure Imperial achieves international recognition as a global community of the most talented students; offers a distinctive education; is recognised for its commitment to innovation in teaching and learning and in the wider student experience; and maintains an outstanding academic and professional service infrastructure. The Strategy will build on existing innovative and educational initiatives, including Imperial Horizons, PhD Scholarships, the Student Hub and the Student Academic Choice Awards.

## LKC**Medicine** WELCOMES NEW STUDENTS

The Lee Kong Chian School of Medicine (LKCMedicine), a pioneering collaboration between Nanyang Technological University (NTU) and Imperial, welcomed its first 54 students in August 2013. Established in response to the pressing need to train more doctors to meet Singapore's healthcare requirements, the first cohort of LKCMedicine students will learn from an innovative curriculum incorporating elements of simulation, team-based learning and early clinical exposure.

## BROADENING HORIZONS

First and second year undergraduate students now have the chance to study a diverse range of modules from Imperial's innovative Horizons programme. Horizons, established in 2012, aims to broaden the education of students by offering them the chance to study humanities courses alongside their degree programme. Developed as a means to give students an edge in their future career and to inspire creativity, Horizons consists of about 50 courses from four fields of study: Business and Professional Skills; Languages and Global Citizenship; Global Challenges; and Science, Culture and Society. In the Programme's first year, over 1,500 students enrolled in at least one course.

## SURVEY SUCCESS

Imperial gained its highest student satisfaction score and response rate in the National Student Survey's history, thanks to the work of every department and the Union to improve the student experience. 87 per cent of final-year Imperial students responding to the 2013 survey "definitely" or "mostly" agree that their overall experience at the College was satisfactory. The results revealed particular progress in the Assessment and Feedback category, with a 66 per cent satisfaction rate, an increase of 4 per cent on 2012 and a 12 per cent improvement over the past two years. The College achieved its highest ever rating for satisfaction with Learning Resources at 95%, the joint-second highest rating in the sector. A greater proportion of Imperial students took part in the survey than at any other university in England and Wales.

## INNOVATION AT IMPERIAL COLLEGE BUSINESS SCHOOL

Imperial College Business School launched two innovative new programmes during 2013-14. The ELITE programme, a partnership between Imperial College Business School and the London Stock Exchange, provides support for high growth small and medium enterprises through tailored business support tools, education services and access to a select

group of more than 50 business advisory and investment partners. The Imperial Global MBA is a flexible, part-time, online programme that will allow students to gain core business knowledge and skills without having to be physically present in the classroom for the majority of the programme. The Business School has developed a bespoke online learning platform, called The Hub, which will enable students to study and interact with one another and with their tutors during live lectures and via online chat forums, and to collaborate on projects and assignments. Classes commence in January 2015.

## FACILITATING ACADEMIC TRANSITIONS

For the last seven years, Education Day has been an opportunity for the Imperial community to discuss key issues relating to education and learning. In March 2014, College staff and representatives of Imperial College Union met once again, this time to focus on the issue of academic transitions. Panels discussed how the College can support key periods of change for students, for example the transition from school to university and the transition from undergraduate to postgraduate study. Speakers explored the particular challenges faced by international students and the non-academic aspects of student transitions.



The first cohort of LKCMedicine students in Singapore recite the Declaration of a New Medical Student at the School's inaugural white coat ceremony.



*Dr Oscar Ces (left) and colleagues. Dr Ces is Director of one of Imperial's 12 Centres for Doctoral Training.*



# Translation

## DATA SCIENCE INNOVATION LABORATORY

Imperial and Huawei, a leading global ICT solutions provider, have announced the establishment of the Imperial College – Huawei Data Science Innovation Laboratory, which will bring together experts from across Imperial's faculties and Huawei researchers to harness data science research and develop new applications in fields such as smart cities, energy and healthcare. The data science lab is the first major corporate partnership within Imperial's Data Science Institute, which will cultivate multidisciplinary collaborations to develop new big data technologies. Huawei will invest in cutting-edge equipment including next-generation cloud computing servers, a research and innovation fund, and operational costs for the new lab.



*The launch of the Data Science Institute, a collaboration between Imperial and Huawei.*

## HERO MOTOCORP SUPPORTS NEW BUSINESS SCHOOL CHAIR

Sunil Munjal, the Joint Managing Director of Hero Motocorp, announced his company's support for a new Chair at Imperial College Business School during an alumni event in Delhi. The Chair will address innovation, entrepreneurship and strategic leadership from the perspective of emerging markets, including India. Hero Motocorp is the world's largest motorcycle and scooter manufacturer and its parent company, the Hero Group, already has ties to Imperial, with the Business School providing mentoring support to BML Munjal University, a new institution in Gurgaon which is philanthropically funded by the conglomerate.

## MORE CENTRES FOR DOCTORAL TRAINING AT IMPERIAL

The number of Centres for Doctoral Training (CDTs) at Imperial has risen to 12, making the College home to the largest number of CDTs in the country. CDTs are intended to provide a supportive and exciting environment for postgraduate students, creating new working cultures, building relationships between teams in universities and forging lasting links with industry. CDTs equip scientists and leaders to take on big societal challenges through their emphasis on multidisciplinary and the development of key transferable skills, including communication and outreach, team building, management and leadership. The new Centres were announced by UK Chancellor George

Osborne in several stages, with the two final centres, in the fields of Non-Destructive Evaluation and the Advanced Characterisation of Materials, announced in March 2014. All of Imperial's CDTs are funded by the Engineering and Physical Sciences Research Council.

## IMPERIAL INNOVATIONS WELCOMES NEW HEAD

Imperial Innovations, the technology commercialisation company established by the College, welcomed a new Chief Executive Officer in the summer of 2013. Russ Cummings (Mechanical Engineering, 1986) joined Innovations in 2006 as Chief Investment Officer and during his time in that role, he built the company's investment portfolio and served as a board member for companies in receipt of Innovations' investment. Imperial Innovations is widely recognised as Europe's leading university technology transfer company, with a remit that focuses on investing in and supporting businesses emerging not only from the College, but also from the Universities of Oxford and Cambridge and UCL.

## ICT COLLABORATION CENTRE LAUNCHES AT IMPERIAL WEST

In March 2014, technology, business and political leaders gathered at Imperial West, the College's newest campus, to launch the London Node of the European Institute of Innovation & Technology's (EIT) ICT Labs.

The Labs will provide a space for start-ups, spin-outs and established businesses to work alongside academic experts in exploiting ICT innovations to create the next generation of smart city infrastructure. Collaborators will focus on issues including health and wellbeing, urban life and mobility and smart energy solutions. Institutions including UCL and the University of Edinburgh, together with Intel, BT, Vodafone and IBM, join Imperial in leading the London Node.

## KPMG CENTRE FOR ADVANCED BUSINESS ANALYTICS

Imperial and KPMG, a leading provider of professional services including audit, tax, advisory and accounting, announced the creation of the KPMG Centre for Advanced Business Analytics. With an investment of over £20 million from KPMG, the Centre will focus on five key areas: analysis of business capital, growth opportunities, people, operations and resilience. Each area has been selected to help UK businesses gain a competitive edge by launching new products and services ahead of international competitors. The new Centre will also develop innovative approaches, analytical methods and tools for using big data, giving UK businesses the opportunity to solve complex issues, such as enabling banks to predict fraud or helping retailers better understand consumer behaviour.



# Community and public engagement

## A FESTIVAL FOR SOUTH KENSINGTON

In May 2014 Imperial's South Kensington Campus welcomed record numbers of visitors for its annual celebration of the best science and arts on offer from the College. More than 12,000 members of the public, alumni, students and staff enjoyed the free interactive exhibits, tours, workshops, talks and performances made possible by over 400 Imperial volunteers. For the first time, Imperial Festival featured a dedicated schools event, allowing local students to participate in workshops and interactive displays linked to curriculum topics before the Festival opened to the general public. One of the most popular zones was dedicated to Imperial's robotics research, where visitors could test the College's eye-controlled robotic devices and meet Nao the dancing robot, which mirrors human movement. Interactive performances by the Imperial College Symphony Orchestra, the student Belly Dancing Society and the College's *a cappella* groups contributed further to the Festival atmosphere.

## FRINGE BENEFITS

Imperial Fringe events provide a year-round opportunity for public audiences to engage with the College's research at a series of free themed evenings. In 2013–14, the Fringe left the College's South Kensington Campus for the first time, with an event at Imperial West dedicated to the science of identity. Professor Roger Kneebone (Medicine) set up his pop-up operating theatre, with visitors volunteering to help surgeons patch up a 'patient'. Elsewhere, visitors donned coloured glasses to view the delicate structure of Dr John McGonigle's (Medicine) neurons, as his brain was projected on a giant 3D screen. A later Fringe event, held in March 2014, invited visitors to explore species past and present, on earth and beyond. Dr Matthew Genge (Earth Sciences) exhibited meteorites from 4.5 billion years ago, while undergraduate students explained to visitors how science and species have played a critical role in the development and protection of civilisation.

## CELEBRATING THE CONTRIBUTION OF DONORS AND VOLUNTEERS

Two major events during 2013–14 celebrated the unprecedented generosity of Imperial's donor and volunteer community.



Schoolchildren at the pilot Schools day, part of the 2014 Imperial Festival.

In November 2013, President & Rector Sir Keith O'Nions welcomed over 260 alumni and supporters to the annual Donor Thank You Event. The event recognised the contribution of over 4,500 people who chose to support Imperial during 2012–13. In early 2014, the Dean of Imperial College Business School, Professor G. 'Anand' Anandalingam met former students of the school and thanked them for volunteering their time to support the work of the school. Former students help with student recruitment around the world, offer career advice to current students and organise events for both current students and fello alumni.

## IMPERIAL PHYSICISTS LIGHT UP THE SUMMER SCIENCE EXHIBITION

The Royal Society Summer Science Exhibition is an annual display, free for all, of the most exciting cutting-edge science and technology in the UK. In 2014, Imperial physicists working in two fields of research showcased their work to over 10,000 members of the public and 2,000 school students. Professor Paul Dauncey and colleagues from Imperial and other institutions led a hands-on exhibit on the discovery of the Higgs boson, a particle first theorised by academics including Imperial's Professor Tom Kibble in the early 1960s. Visitors learnt what the Higgs boson can tell us about new theories describing the laws of nature. Elsewhere, Dr Arthur Turrell of the Plasma Physics Group and colleagues led an exhibit on their project to recreate the conditions found at the core of the Sun, in order to one day provide a clean, safe

and zero-carbon supply of energy that will last for millions of years. Visitors to the interactive exhibit were able to play with plasma in a plasma globe, focus a laser through a lens to pop a balloon and talk to the scientists about their research.

## VOLUNTEERING SUCCESS AT IMPERIAL

National Student Volunteer Week unites undergraduate and postgraduate student volunteers at universities and colleges all over the United Kingdom. In February 2014, Imperial students marked the event through a range of activities across London, including volunteering with the city's elderly population, running several Hammersmith charity shops and supporting the homeless through the College's Soup Run project. Participants also worked hard to engage their fellow students in volunteering by raising awareness of existing projects and emphasising the personal and professional benefits that volunteering can bring.

## A HEAD START FOR SCHOLARSHIP RECIPIENTS

A record number of 85 undergraduates started their studies in 2013–14 supported by the Rector's Scholarship Fund, which is made possible by the generosity of Imperial's alumni and other supporters. The Scholarships aim to attract the brightest students from every background, giving financial support to ensure they feel able to pursue their studies and activities beyond their degree, such as volunteering, internships or joining clubs and societies.



*The Brevan Howard Centre for Financial Analysis at Imperial College London will help understand and prevent financial crises.*

# Staff news

## DEPARTURES

### Professor Andrew George

In October 2013, Professor Andrew George left his role as Head of the Graduate School to join Brunel University as Vice Principal (Education & International). An expert in molecular immunology, Professor George was a member of the Imperial community for 21 years, joining the Royal Postgraduate Medical School, Hammersmith Hospital (now part of Imperial) in 1992.

### Professor Dorothy Griffiths

Professor Dorothy Griffiths stepped down as Dean of Imperial College Business School to chair the Central and North West London NHS Foundation Trust. Professor Griffiths, an expert in Human Resource Management, joined Imperial in 1969. During her time at the College she has also been heavily involved in the Athena SWAN Charter awards, which celebrate good employment practice for women working in science, technology, engineering, medicine and mathematics. Professor Griffiths continues to work part-time at Imperial as the Provost's Envoy for Gender Equality.

### Mr Nigel Wheatley

After 33 years at the College, Imperial's Academic Registrar retired in October 2013. Nigel Wheatley's relationship with Imperial began through his work at the central offices of the University of London. As Academic Registrar, he was responsible for educational processes, dealing with disciplinary matters and complaints and assuring the quality of degree programmes.

### Mr Ian Gillett

After 24 years as Safety Director at the College, Ian Gillett retired in May 2014. Mr Gillett joined Imperial as an undergraduate Chemistry student in 1971, before building his career as a Health and Safety Executive Inspector, then Assistant Director, becoming Safety Director in 1990.

## APPOINTMENTS

### Professor Franklin Allen and Professor Douglas Gale

Two leading academic figures were appointed as Executive Director and Director of Research at Imperial College Business School's Brevan Howard Centre for Financial Analysis. The Brevan Howard Centre has been launched thanks to one of the largest donations in business

education history from Brevan Howard, at the behest of its co-founder Alan Howard (MEng Chemical Engineering & Chemical Technology, 1986). Professors Allen and Gale joined the College from the Wharton School of the University of Pennsylvania and New York University respectively.

### Professor Susan Gibson

Professor Susan Gibson became Director of the Graduate School on 1 November 2013. She divides her time equally between her new role and her continuing position as a Professor of Chemistry in the Department of Chemistry, where her research interests lie at the border between organic synthesis and transition metal chemistry.

## PROMOTIONS

### 2013–14 promotions

Seventy eight Imperial College London academics began the 2013-14 academic year with new positions in recognition of their research and teaching successes. Among those who received promotions were Dr Simon Schultz, who became reader in the Department of Bioengineering, Dr Marisa Miraldo of the Centre for Health Management, Dr Oscar Ces of Imperial's Institute of Chemical Biology and Professor Alex Blakemore of the Faculty of Medicine.

## STAFF COMMUNITY

### Celebrating long serving colleagues

In April 2014, President & Rector Sir Keith O'Nions was joined by some of the College's longest serving staff, who collectively amassed over 1,400 years of service. Attendees at the reception were celebrating significant milestones in their employment at Imperial, from 35 to 50 years. For many, the event was a chance to reflect on the changes that have taken place at the College: staff discussed the effect of the digital revolution on research methods and the opportunities for global collaboration made possible by advances in travel and communication.

### Continued Athena SWAN success

During 2013–14, Imperial's commitment to furthering and supporting the careers of women in academia was once again recognised in its receipt of several Athena SWAN awards. The Athena SWAN Charter, to which Imperial is a signatory, articulates several principles designed to advance



Dr Simon Schultz with PhD student Aleksandra Berditchevskaia. Dr Schultz was one of almost 80 Imperial academics promoted during 2013–14.

the representation of women in science, technology, engineering, medicine and mathematics. Athena SWAN awards recognise success in meeting the ideals in the Charter. The Department of Chemistry became one of only four university departments in the UK to win a Gold Award; the Department of Materials and the School of Public Health were both successful in renewing their Silver Awards, while the Department of Computing was awarded a Bronze Award.

### Ending mental-health discrimination

Imperial has added its voice to a national campaign to end discrimination linked to mental illness. Time to Change is a UK-wide campaign, led by charities Mind and Rethink Mental Illness, which aims to empower people with mental health problems to feel confident talking about the issue without facing stigma from friends and colleagues. Imperial, together with other organisations from a range of sectors, signed the Time to Change pledge. In addition, it produced an action plan designed to raise awareness of mental health issues, debunk myths and enhance the mental wellbeing of its community.

### Empowering staff with disabilities

For a second year, Imperial has led a pioneering programme designed to advance the career prospects of staff with disabilities. The Calibre Leadership Programme, which is the first of its kind in the higher education sector, focuses on equipping participants with effective leadership strategies that reflect the challenges that people with disabilities face in the workplace. During 2013–14, the Programme was open to individuals from other institutions, who joined Imperial staff in a series of six interactive workshops.



*h-bar, a new social space for staff and postgraduate students at the College's South Kensington Campus.*

# Estate developments



A visualisation of One Victoria Road, due to open in October 2015.

## CELEBRATION OF IMPERIAL'S NEWEST STUDENT HALLS

In June 2014, a topping out ceremony marked the completion of the highest point of Imperial's newest building for student accommodation. The development at One Victoria Road in North Acton, which will house 693 undergraduate students, is due to open in October 2015. Topping out ceremonies date back to around 700 AD, and traditionally mark the occasion of the completion of a building's structure while recognising the work that lies ahead. President & Rector Sir Keith O'Nions buried a yew tree sprig on top of the tallest tower for posterity. One Victoria Road, which sits at the heart of a new student community in North Acton, marks a continued investment by the College in the student residential experience. Once completed, the site will offer a range of communal spaces and facilities including a coffee shop, bar, common room and gym.

## NEW STAFF AND POSTGRADUATE SPACE UNVEILED

A new pub and café for staff and postgraduate students was unveiled at the College's South Kensington Campus at the end of 2013. h-bar, which is run by Imperial College Union and Campus

Services, is part of a larger redevelopment of Level 0 of the Sheffield Building. The name of the new space was selected from a number of suggestions from the College community: h-bar is physics shorthand for the quantum of angular momentum. The pub and café is one of twenty catering outlets located across the College's South Kensington, Hammersmith and Charing Cross campuses.

## RECOGNISING IMPERIAL'S HERITAGE

More than 100 staff and guests affiliated with Mechanical Engineering and Aeronautics at Imperial gathered to celebrate the naming of the City & Guilds Building in September 2013. The ceremony marked the launch of a major redevelopment programme for what was previously known as the Mechanical Engineering Building on Imperial's South Kensington Campus. The Building was built in the early 1960s and stands on the site of the former City & Guilds College Building, constructed in 1885. The wider refurbishment of the Building, when complete in 2017, will provide new study and breakout spaces for students, improved learning areas and upgraded core infrastructure. Specialist facilities will include two new wind tunnels.



Imperial has purchased a new sports ground at Heston.

## SPORTING SUCCESS FOR THE FUTURE AT HESTON

Imperial has purchased a major new sports ground in Heston, some two miles from its existing Harlington sports ground. The site in Heston is set across 27 acres and has grass space for five football and two rugby pitches as well as tennis and netball courts, cricket facilities and a shooting range. It also has a wide range of indoor facilities for students to use, including a large theatre and activity space, squash and basketball courts and three bars, potentially providing wider benefit to non-sporting clubs and activities. The site's proximity to the Harlington sports ground will allow for shared transportation to sporting fixtures and will also provide a social space for bringing teams together after sporting events.

## IMPERIAL WEST GATHERS PACE

During 2013–14, work to develop the College's newest campus in west London continued. Imperial West, a 23 acre campus, will pioneer a new approach to innovation and entrepreneurship in the fields of the natural world, engineering, data science and healthcare. An unprecedented gift of £40 million from Michael Uren OBE will fund the construction of the Michael Uren Biomedical Engineering Research Hub on the campus (see page 13 for more information), while a collaboration between Imperial and Huawei will see the establishment of a Data Science Innovation Laboratory on the site (see page 23).

During the summer of 2014, final plans for Imperial West's centrepiece, the Research and Translation Hub, were put in place, with construction scheduled to begin in September. The £200 million Hub, which will be developed in collaboration with organisations including Voreda, Laing O'Rourke and Santander, will include high specification, multidisciplinary research space for 1,000 scientists and engineers, together with 50 scalable units for university and industry spinouts and ventures.

# Public benefit statement

Imperial College London is an exempt charity under the laws of England and Wales by virtue of the Exempt Charities Order 1962 and the Third Schedule to the Charities Act 2011. Its activities include the promotion of scholarship, education and research in science, engineering and medicine especially in their application to industry. In accordance with the Charities Act 2006 HEFCE is the responsible body for regulating universities as charities on behalf of the Charity Commission.

## The Objects

Imperial College London's Objects are set out in its Royal Charter. They are to provide the highest specialised instruction and the most advanced training, education, research and scholarship in science, technology and medicine, especially in their application to industry; and in pursuit of these objects to act in co-operation with other bodies.

The College's Mission is derived from these objects. The Mission states that Imperial College London embodies and delivers world class scholarship, education and research in science, engineering, medicine and business, with particular regard to their application in industry, commerce and healthcare. We foster multidisciplinary working internally and collaborate widely externally.

The Council serves as the College's trustee and is responsible for defining Imperial's strategic aims and directing the activities of its executive in the furtherance of these objects. In setting and reviewing the University's objectives and activities, the Council has had due regard to the Charity Commission's guidance on the reporting of public benefit and particularly to its supplementary public benefit guidance on the advancement of education and on fee charging. The Council has also paid due regard to the guidance issued by HEFCE in its role as principal regulator on behalf of the Commission.

## Strategic Aims

The College's Aims are set out in the College Strategy 2010-2014, which was approved by the Council in July 2010. They are:

- To undertake research of the highest international quality within an intellectually challenging and inspiring environment
- To extend the frontiers of knowledge within and beyond existing research disciplines
- To bring together research expertise within and beyond the College to address science challenges of today and the future
- To identify, attract and develop students of the highest ability who are most able to benefit from an education at the College
- To provide research-led teaching of the highest international quality within an intellectually challenging and inspiring environment
- To offer an educational experience that empowers graduates to be leaders in their chosen careers and contribute to the long-term needs of society
- To engage with the world to understand, identify and lead emerging scientific challenges and solutions
- To maximise the social and economic value of our education and research through the transfer of both talent and technology
- To find innovative ways to extend the reach and impact of all our work

- To maintain excellence by being efficient, effective, adaptable and integrated
- To build mutually beneficial relationships with appropriate organisations in the UK and worldwide
- To achieve high standards of health, safety and environmental practice
- To attract, develop, reward and retain a diverse community of staff of the highest calibre
- To invest in our facilities and estate and be financially sustainable with diverse sources of income
- To transform information and data into insight and intelligence that guides our thinking
- To anticipate, understand and shape the thinking of stakeholders and policy makers worldwide, including those in government, academia and industry
- To be a world leading source of independent scientific advice
- To help create a wide awareness in society of the benefits of world-class research and education in science, engineering, medicine and business

In implementing its strategic aims and objectives, the College is guided by the values set out in its Vision & Strategy and the Council is mindful of its responsibility to ensure that the College acts for the benefit of the public.

The Report on Imperial's activities during the year, which forms a major part of this Annual Report and Financial Statements provides further information on our progress and achievements against these and other objectives. This section highlights areas in which the College carried out its activities for the public benefit during the year in furtherance of its objects.

## Education

The College offers excellent research-led education in science, engineering, medicine and business subjects. It places importance on teaching, whilst recognising that teaching alone is not sufficient to provide a higher education, particularly in STEM subjects. At undergraduate level, the College provides academically rigorous courses in core disciplines which give students practical experience, a theoretical understanding of research and a fundamental knowledge of their discipline. This provision is research-led, encouraging students to think independently and critically, and develop strong analytical skills. The College's postgraduate taught courses build upon fundamental knowledge acquired at undergraduate level. They include both discipline-based and multidisciplinary programmes and provide students with a platform to pursue doctoral study or to develop a successful career in the commercial, industrial, healthcare or public sectors. In addition, through the School of Professional Development, the College delivers short, bespoke postgraduate courses in science, engineering, medicine and business to the commercial sector and the NHS.



### **Student Admissions and Equal Opportunities**

The College's mission is to maintain excellent standards of achievement in teaching and research in order to attract and admit students of the highest calibre, and its international reputation relies on the people who make up its diverse and high-achieving community. The College aims to create a diverse and stimulating environment that attracts the most talented staff and students and by training students from across the globe we aim to strengthen knowledge, economies, and cultural relationships world-wide. In pursuing this aim, Imperial adheres to a comprehensive policy of equal opportunities which ensures that it does not discriminate against any individual, from the first point of contact through to graduation. Selection for entry is based on consideration of academic ability, motivation for study, interest in the subject area and the potential to benefit from the experience and to contribute to College life.

The College has a number of support methods to facilitate access of appropriately qualified students to its courses regardless of their financial circumstance. Fees for Home and EU undergraduates are set currently at the maximum level reflecting the high quality of education and student experience that Imperial offers. Scholarships are provided for overseas students, which are awarded on academic merit and financial need. The prestigious new Imperial College PhD Scholarship Scheme, launched in 2013, has been designed to provide the most talented students from around the world the opportunity to apply for one of 50 highly-competitive scholarships.

The College has an Access Agreement which has been approved by the Office of Fair Access and which sets out the measures being taken by the College to provide financial support for students and to ensure wider access to the College's courses. The College's Access Agreement seeks to ensure that financial considerations do not preclude those most able to benefit from studying at the College from doing so and the College has committed to spend at least 35% of its additional fee income on supporting access, both through the provision of financial support for students and through the provision of additional support for the College's outreach activities.

### **Financial Support**

The College offers one of the most generous overall student financial support packages in the UK. This is available to Home undergraduate students and provides help towards living costs and cash bursaries. The College also offers a number of undergraduate scholarships to those who are academically excellent.

### **Outreach**

Imperial College has a long established reputation for delivering excellent outreach activities to school and college students. The College believes in raising the aspirations of all students, regardless of background, to fulfil their potential and apply to the right university for them. Imperial is committed to inspiring students in the study of science, technology, engineering and medicine. In support of this commitment, the College offers a range of activities and programmes from Open Days for prospective students; inspirational hands-on activities; summer schools; mentoring programmes in schools; exciting lectures, to a Schools Visit Programme to help raise awareness of Higher Education.

In 2011-12, the College developed a targeted pilot programme, aimed at disadvantaged children who are capable in science. The first cohort benefited from provision tailored to their particular needs, including face-to-face and network mentoring, science enrichment activities and revision support with the aim of enabling and encouraging them to apply successfully to study science at a selective university, including the College. This programme was expanded in 2012-13 to include a broader range of activities. Initial feedback shows that 81% of respondents felt that the scheme had made them more likely to apply to university, with 85% stating that it had made them more motivated about their studies.

### **Research**

The challenges faced by the world today are complex and interrelated, affect the length and quality of life of entire populations, and can be addressed only through the discovery and application of new knowledge, most particularly in science, engineering, medicine and business. The College's research aims to create knowledge generally and provide solutions to a broad spectrum of societal and economic issues, including energy, environment, healthcare and security. It addresses these challenges on three broad levels, which are interdependent (core disciplines, multidisciplinary research, global challenges) with many academics being engaged with all three

### **Translation**

The College's definition of translation encompasses all forms of knowledge transfer. The College is the only UK university to focus exclusively on science, technology, engineering, medicine and business, and the only one to have had the application of its work to industry, commerce and healthcare central to its mission since its foundation. Imperial College's approach to translation is distinguished by being (i) open to external engagement, which stimulates the exchange of new ideas and a shared understanding of how emerging challenges might be addressed; (ii) multidisciplinary in mobilising people, knowledge and expertise across internal and external boundaries; and (iii) innovative in widening the overall reach and impact of its work – both in the UK and internationally. The College seeks to ensure that translating both into, and from, practice continues to remain an integral part of how it maximises value for society from its education and research.

### **Summary**

In 2013-14 the College fulfilled its educational and research mission, bringing direct benefit to its members and to society at large.

# Corporate governance

The following corporate governance statement is provided to enable the reader of the financial statements to obtain a better understanding of the governance and legal structure of the College.

## Principles

The College is committed to exhibiting best practice in all aspects of corporate governance. It endeavours to conduct its business in accordance with the seven Principles identified by the Committee on Standards in Public Life (selflessness, integrity, objectivity, accountability, openness, honesty and leadership), and with the guidance to universities from the Committee of University Chairmen in its Guide for Members of Higher Education Governing Bodies in the UK, the latest edition of which was published by the Higher Education Funding Council for England (HEFCE) in 2009.

## Legal Status

The College is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. Its objects, powers and framework of governance are set out in its Charter and Statutes, which were granted by Her Majesty The Queen in 1998. On 4th April 2007 a Supplemental Charter and Statutes were granted by Her Majesty. This Supplemental Charter, which came into force on the date of the College's Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine".

## Governance

The Charter and Statutes require the College to have three separate bodies, each with clearly defined functions and responsibilities, to oversee and manage its activities as follows:

The Council is 'the governing and executive body of the College', and is responsible for the finance, property, investments and general business of the College, and for setting its general strategic direction. There are up to 23 members of the Council, the majority of whom are external members, including the Chairman and Deputy Chairman. Also included in its membership are representatives of the staff of the College and of the student body. None of the external members receive any payment, apart from the reimbursement of expenses, for the work they do for the College.

The Court is a large stakeholder body which includes representatives from associated NHS Trusts, funding agencies, alumni and companies, public sector bodies and charities which fund research and employ graduates from the College. It consists of 100 members most of whom are from outside the College and offers a means whereby stakeholders with an interest in the College can be associated with it, and provides a public forum where members of the Court can raise any matters about the College. Its membership also includes representatives of the College's staff and students. In addition, changes to the College's Charter require the approval of the Court before they can be submitted to the Privy Council. The Court normally meets at least once a year to coincide with the annual Imperial Festival of Science.

The Senate is the academic authority of the College and draws its membership entirely from the academic staff and the students of the College. Its role is to direct and regulate the teaching work of the College.

The principal academic and administrative officer of the College is the President who has a general responsibility to the Council for maintaining and promoting the efficiency and good order of the College. Under the terms of the formal Financial Memorandum between the College and the Funding Council, the President is the Designated Officer of the College and in that capacity can be summoned to appear before the Public Accounts Committee of the House of Commons. The financial management of the College is prescribed in the Financial Ordinance approved by the Council and conducted in accordance with the Financial Memorandum with the Funding Council.

The President has ultimate responsibility for all of the University's functions and activities, but gives greater emphasis to Imperial's external relationships, development and fundraising. The President is supported in this by the Provost, who has direct responsibility for the delivery of the College's core mission: education, research and translation. The Provost reports directly to the President and together they have responsibility for the strategic direction of the College. From 1 August 2013, the College also instituted a new management governance structure, reflecting the respective roles of the President and the Provost.

As Chief Executive of the College, the President exercises considerable influence upon the development of institutional strategy, the identification and planning of new developments, and the shaping of the institutional ethos. She is supported in this by a President's Board whose primary function is to plan for and address issues of broad, strategic, and College-wide significance.

The Provost is supported and advised by the Provost's Board. The Provost's Board is responsible for the delivery of the College's core academic mission, including oversight of the quality and efficacy of education and research; recruitment, development and retention of academic and research staff; and student life and well-being. It also has responsibility for delegated budgets and their financial control.

The Council is responsible for the College's system of internal control and for reviewing its effectiveness. Its approach is risk-based and includes an evaluation of the likelihood and impact of risks becoming a reality and also ensures that risk assessment and internal control procedures are embedded in the College's ongoing operations. The reviews included in the College's risk-based Strategic Audit Plan cover business, operational and compliance issues as well as financial risk. Such a system of internal control is designed to manage rather than eliminate the risk of failure to achieve business objectives and can only provide reasonable, and not absolute, assurance against material misstatement or loss.

The Council's view is that there is an ongoing process for identifying, evaluating and managing the university's significant risks that has been in place for the year ended 31 July 2014 and up to the date of approval of the annual reports and financial statements, that it is regularly reviewed by the Council and that it accords with the internal control guidance for directors in the Combined Code as deemed appropriate for higher education.

The Council meets at least four times a year and, following the completion of a review of governance in 2010, now has seven committees; the Audit Committee, the Development Board, the Endowment Board, the Imperial West Syndicate, the Nominations Committee, the Remuneration Committee and the Risk Committee.

These are formally constituted as committees of the Council with written terms of reference and specified membership, including a significant proportion of external members. With the exception of the Development Board, which is chaired by the President, all are chaired by external members of the Council. The decisions of these committees are reported formally to the Council.

**The Audit Committee** meets three times a year with the College's internal and external auditors in attendance. It considers detailed reports together with recommendations for the improvement of the College's systems of internal control and management's responses and implementation plans. It also receives and considers reports from the Funding Council as they affect the College's business and monitors adherence to regulatory requirements. The Committee reports directly to the Council and has the authority to call for any information from the College officers, from internal and external auditors and from others whom it considers necessary to consult in order to discharge its responsibilities effectively. Whilst senior officers attend meetings of the Committee, they are not members of it. At least once a year the Committee meets separately with the internal and external auditors on their own for independent discussions. The Audit Committee also receives regular reports from Internal Audit and from the Management Board. Its role in this area is confined to a high level review of the arrangements for governance, internal control, value for money, risk management and the arrangements for the management and quality assurance of data submitted to formal funding bodies at the College. The emphasis is on obtaining the relevant degree of assurance and not merely reporting by exception.

**The Development Board** provides independent objective guidance on the College's fundraising activities. Board members are asked to be advocates and enthusiastic communicators of Imperial's mission and vision, and to play an integral role in our fundraising activities.

**The Endowment Board** manages those College assets that are not essential to the core academic mission of the College and that can therefore be managed with a pure investment focus. Its Terms of Reference include an obligation to maintain a diversified portfolio of investments, to have regard to the suitability of the investments within this portfolio and to manage the investments in a way that is appropriate to achieve the Investment Objective set by the Council. The Investment Objective necessitates growth in value of the non-core assets in line with inflation whilst also providing a regular distribution for the core academic mission of the College. Within these restrictions, the Endowment Board is authorised to make such investments as it sees fit.

**The Imperial West Syndicate's** primary role is to advise Council on recommendations made to it by the President's Board regarding all aspects of the development of Imperial West: masterplanning, commercial strategy; and financial strategy. It also provides advice and guidance to the President's Board and the Imperial West executive team on the execution of Council decisions.

**The Nominations Committee** considers nominations for membership of the Court and Council and for the latter's Committees.

**The Remuneration Committee** determines the remuneration of senior staff in the College including the President.

**The Risk Committee's** primary objective is to consider the strategic risks facing the College and the actions proposed to mitigate these risks.

**The Provost's Board** receives reports setting out key performance and risk indicators and considers possible control issues brought to its attention by early warning mechanisms which are embedded within the operational units.

The College maintains a Register of Interests of members of the Council and of Senior Officers which may be consulted by arrangement with the Clerk to the Court and Council.

The College Secretary and Registrar is the Clerk to the Court and Council. Any enquiries about the constitution and governance of the College should be addressed to him.

# Responsibilities of the Council

The Council has adopted the Governance Code of Practice published by the Committee of University Chairmen, and accordingly has approved the following Statement of Primary Responsibilities:

1. To approve the mission and strategic objectives of the College, its long-term business plans and key performance indicators, and to ensure that these take account of the interests of the College's stakeholders.
2. To safeguard the good name and values of the College.
3. To appoint the President, the College's chief executive, and to put in place suitable arrangements for monitoring his/her performance.
4. To appoint other executive members of the Council as specified in the Statutes.
5. To delegate authority to the President, as chief executive, as advised by the President's Board for the academic, corporate, financial, estate and personnel management of the College.
6. To assess risk to the College and to position its management and mitigation.
7. To ensure the establishment of systems of control and accountability, including financial and operational controls, risk assessment, and procedures for managing conflicts of interest; and monitor the effectiveness of these systems.
8. To ensure that processes are in place for regular monitoring and evaluation of the performance and effectiveness of the College against its approved plans and key performance indicators.
9. To conduct its business in accordance with best practice in higher education corporate governance and with the principles of public life drawn up by the Committee on Standards in Public Life.
10. To be the principal financial and business authority of the College, to ensure that proper accounts are kept, to approve the annual budget and financial statements, and to have overall responsibility for the university's assets, property and estate.
11. To be the College's legal authority and, as such, to ensure that systems are in place to ensure that all its legal obligations, including those arising from contracts and other legal commitments made in its name, are properly met.
12. In accordance with the College's Charter and Statutes, to act as trustee for any property, legacy, endowment, bequest or gift in support of the work and welfare of the College.
13. To ensure that the College's Charter and Statutes are adhered to at all times, with appropriate advice available as necessary.
14. To approve the College's human resources strategy.
15. To establish processes to monitor and evaluate the performance and effectiveness of the Council itself.
16. To appoint a Clerk to the Council and ensure that accountability for his/ her performance in that capacity is properly separated from such managerial responsibilities as he/ she may have in the College.

In accordance with the College's Charter and Statutes, the Council is responsible for the efficient management and good conduct of all aspects of the affairs of the University (including its finances and property). It is required to present audited financial statements for each financial year. As such it is responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the College and enable it to ensure that the financial statements are prepared in accordance with the Charter of Incorporation, the Statement of Recommended Practice (SORP) on Accounting in Higher Education Institutions and other relevant accounting standards. In addition, and in accordance with the formal Financial Memorandum between the College and the Higher Education

Funding Council for England, the Council, through its Designated Officer, is required to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the College and of the surplus or deficit and cash flows for that year.

In causing the financial statements to be prepared, the Council has ensured that:

- suitable accounting policies are selected and applied consistently;
- judgements and estimates are made that are reasonable and prudent;
- the SORP and applicable accounting standards have been followed, subject to any material departures being disclosed and explained in the financial statements;
- the College has adequate resources to continue in operation for the foreseeable future and for this reason the financial statements are prepared on a going concern basis.

The Council has taken reasonable steps to:

- ensure that funds from the Higher Education Funding Council for England are used only for the purposes for which they have been given and in accordance with the Financial Memorandum with the Funding Council and any other conditions which the Funding Council may from time to time prescribe;
- ensure that there are appropriate financial and management controls in place to safeguard public funds and funds from other sources;
- safeguard the assets of the College and prevent and detect fraud;
- secure the economical, efficient and effective management of the College's resources and expenditure.

The key elements of the College's system of internal control, which is designed to discharge the responsibilities set out above, include the following:

- clear definitions of the authority delegated to principals of faculties and heads of academic and administrative departments and divisions as set out in the College's approved Levels of Authority;
- approval by Council each year of a College budget and a three year rolling College plan which, whilst driven from the academic standpoint, are based on detailed financial projections of all College budget centres;
- a comprehensive monthly review of the financial performance of all budget centres and update of forecast outturns with a report to the President and senior College staff, to the Management Board and to Governors at each Council meeting;
- clearly defined and formalised requirements for approval and control of expenditure, with investment decisions involving capital or revenue expenditure being subject to formal detailed appraisal and review according to approval levels set by the Council;
- a comprehensive Financial Ordinance, detailing financial controls and procedures, approved by the Audit Committee and the Council;
- independent internal auditors, whose risk-based Strategic Audit Plan of work (based upon the College's Risk Register) is approved by, and conclusions subsequently reviewed by, the Audit Committee.

The Audit Committee, on behalf of the Council, regularly reviews the effectiveness of the internal controls in the College and its subsidiaries. Any system of internal control can, however, only provide reasonable, but not absolute, assurance against material misstatement or loss.

# Council and Council committees



Members of Imperial's Council 2013–14 who attended their Meeting in July 2014. From left to right, back row: Professor Dermot Kelleher, Mr John Neilson, Mr Jeremy Newsum, Professor Jeff Magee, Sir Philip Dilley, Mr Muir Sanderson, Mr Stewart Newton, Professor Nigel Gooderham, Mr Iain Conn, Dame Ruth Carnall. Front row: Mr David Goldsmith, Mr Chris Brinsmead, Ms Rachel Lomax, Ms Kate Owen, Mrs Philippa Couttie, Professor Maggie Dallman, Baroness Manningham-Buller, Professor Sir Keith O'Nions, Professor Dame Julia Higgins, Professor James Stirling.

## The Council

### Chair:

- Baroness Manningham-Buller

### External Members:

- Mr C Brinsmead (from 1 October 2013)
- Dame Ruth Carnall (from 1 October 2013)
- Mr I Conn
- Mrs P Couttie (to 30 September 2014)
- Sir Philip Dilley
- Ms R Lomax
- Mr J Newsum
- Mr S Newton
- Ms K Owen (to 30 September 2014)
- Lord Tugendhat (to 30 September 2013)

### Ex-Officio:

- President: Professor AP Gast (from 1 September 2014)
- President: Professor Sir Keith O'Nions (to 31 August 2014)
- Provost: Professor J Stirling
- Chief Financial Officer: Mr M Sanderson

### Senior Staff Representatives:

- Professor G 'Anand' Anandalingam
- Professor MJ Dallman
- Professor D Kelleher
- Professor J Magee

### Elected Staff Member:

- Professor J Kramer (to 30 August 2013)
- Professor N Gooderham (from 19 September 2013)

### President, Imperial College Union:

- Mr D Goldsmith (to 31 July 2014)
- Mr T Wheeler (from 1 August 2014)

### Co-opted Members:

- Sir Thomas Hughes-Hallett (to 11 February 2014)
- Professor Dame Julia Higgins

### Clerk to the Court and Council:

- Mr J Neilson

## Audit Committee

### Chair:

- Mrs P Couttie (to 30 September 2014)

### Membership:

- Ms R Lomax
- Mr S Newton
- Ms K Kantor (co-opted)

### Secretary:

- Mr J Hancock

## Development Board

### Chair:

- Professor AP Gast (from 1 September 2014)
- Sir Keith O'Nions (to 31 August 2014)

### Membership:

- Mr Mah Yong Sun
- Mr C Mistry
- Professor W Wong
- Mr D Hinduja
- Sir Simon Robertson
- Mrs S Howard
- Professor Lord Darzi
- Professor D Gann
- Professor Sir Peter Knight
- Mr M Sanderson

### Secretary:

- Ms A Bowen

## Endowment Board

### Chair:

- Mr S Newton

### Membership:

- Professor D Begg
- Professor AP Gast (from 1 September 2014)
- Mr N Moakes
- Mr J Newsum
- Professor Sir Keith O'Nions (to 31 August 2014)
- The Hon. Robert Rayne
- Mr M Sanderson

### Secretary:

- Ms J Soulieux

## Imperial West Syndicate

### Chair:

- Mr J Newsum

### Membership:

- Sir John Armit
- Sir Philip Dilley
- Dr R Easton
- Professor AP Gast (from 1 September 2014)
- Professor Sir Keith O'Nions (to 31 August 2014)
- Mr S Laidlaw
- Mr S Newton

### Secretary:

- Mr A Nuttall

## Nominations Committee

### Chair:

- Baroness Manningham-Buller

### Membership:

- Dame Ruth Carnall (from 1 October 2014)
- Sir Philip Dilley (from 22 November 2013)
- Professor AP Gast (from 1 September 2014)
- Mr J Newsum
- Professor Sir Keith O'Nions (to 31 August 2014)
- Ms K Owen (to 30 September 2014)
- Mr M Sanderson
- Professor J Stirling

### Secretary:

- Mr J Neilson

## Remuneration Committee

### Chair:

- Baroness Manningham-Buller

### Membership:

- Sir Philip Dilley (from 22 November 2013)
- Mr J Newsum
- Ms K Owen (to 30 September 2014)

### Secretary:

- Mrs L Lindsay

## Risk Committee

### Chair:

- Ms R Lomax

### Membership:

- Dame Ruth Carnall (from 25 June 2014)
- Professor AP Gast (from 1 September 2014)
- Mr D Goldsmith (to 31 July 2014)
- Dr J Groom
- Professor Dame Julia Higgins (to 24 June 2014)
- Mr J Newsum
- Mr S Newton
- Professor Sir Keith O'Nions (to 31 August 2014)
- Mr M Sanderson
- Professor J Stirling
- Mr T Wheeler (from 1 August 2014)

### Secretary:

- Ms J Soulieux



*The Structural Testing Lab, Department of Civil and Environmental Engineering.*



# Financial year 2013–14





# Independent auditors' report

## Independent auditors' report to the Council of Imperial College London (the "institution")

### Report on the financial statements

#### Our opinion

In our opinion the financial statements, defined below:

- give a true and fair view of the state of the group's and of the parent institution's affairs as at 31 July 2014 and of the group's income and expenditure, recognised gains and losses and cash flows for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been properly prepared in accordance with the Statement of Recommended Practice – Accounting for Further and Higher Education.

This opinion is to be read in the context of what we say in the remainder of this report.

#### What we have audited

The group financial statements and parent institution financial statements (the "financial statements"), which are prepared by Imperial College London, comprise:

- the consolidated and parent institution Balance Sheets as at 31 July 2014;
- the consolidated Income and Expenditure Account for the year then ended;
- the consolidated Statement of Total Recognised Gains and Losses for the year then ended;
- the consolidated Statement of Cash Flows for the year then ended;
- the Accounting Policies; and
- the notes to the financial statements, which include other explanatory information.

The financial reporting framework that has been applied in their preparation is the Statement of Recommended Practice for Further and Higher Education, incorporating United Kingdom Generally Accepted Accounting Practice.

In applying the financial reporting framework, the Council has made a number of subjective judgements, for example in respect of significant accounting estimates. In making such estimates, it has made assumptions and considered future events.

#### What an audit of financial statements involves

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) ("ISAs (UK & Ireland)"). An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of:

- whether the accounting policies are appropriate to the group and parent institution's circumstances and have been consistently applied and adequately disclosed;
- the reasonableness of significant accounting estimates made by the Council; and
- the overall presentation of the financial statements.

In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

#### Opinions on other matters prescribed in the HEFCE Audit Code of Practices issued under the Further and Higher Education Act 1992

In our opinion, in all material respects:

- funds from whatever source administered by the institution for specific purposes have been properly applied to those purposes and, if relevant, managed in accordance with relevant legislation;
- income has been applied in accordance with the institution's statutes; and
- funds provided by HEFCE have been applied in accordance with the Financial Memorandum and any other terms and conditions attached to them.

#### Other matters on which we are required to report by exception

Under the HEFCE Audit Code of Practice issued under the Further and Higher Education Act 1992 we are required to report to you if, in our opinion the Corporate Governance statement is inconsistent with our knowledge of the parent institution and group. We have no exceptions to report from this responsibility.

#### Responsibilities for the financial statements and the audit

##### Respective responsibilities of the Council and auditors

As explained more fully in the Statement of Responsibilities of the Council set out on page 34 the Council is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and ISAs (UK & Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

This report, including the opinions, has been prepared for and only for the Council as a body in accordance with section 11 of the Charters and Statutes of the institution and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors  
London  
24 November 2014

# Consolidated income and expenditure account

For the year ended 31 July 2014

	Note	2014 £m	2013 £m
<b>Income</b>			
Funding Council grants	1	161.4	168.9
Academic fees and support grants	2	196.8	186.3
Research grants and contracts	3	350.9	329.5
Other income	4	148.0	126.6
Endowment and investment income	5	7.4	12.5
<b>Total income</b>		<b>864.5</b>	<b>823.8</b>
Less: share of income from joint ventures		(10.0)	(1.8)
<b>Net income</b>		<b>854.5</b>	<b>822.0</b>
<b>Expenditure</b>			
Staff costs	6	421.4	392.9
Depreciation	9	58.0	58.4
Other operating expenses	7	303.0	292.4
Interest and other finance costs	8	11.4	11.2
<b>Total expenditure</b>	9	<b>793.8</b>	<b>754.9</b>
<b>Surplus on ordinary activities</b>		<b>60.7</b>	<b>67.1</b>
Share of results in joint ventures and associates		(0.8)	(2.2)
<b>Surplus before exceptional items</b>		<b>59.9</b>	<b>64.9</b>
<b>Exceptional items</b>			
Profit from sale of fixed assets	27	2.7	21.9
Profit on disposal of interests in associated undertakings	27	22.2	–
<b>Surplus after exceptional items</b>		<b>84.8</b>	<b>86.8</b>
Transfer from/(to) accumulated income within endowments	20	1.3	(0.1)
<b>Surplus for the year retained within general reserves</b>		<b>86.1</b>	<b>86.7</b>

No operations were discontinued during the year. All operations above are continuing.

## Note of historical cost surpluses and deficits

For the year ended 31 July 2014

Surplus after exceptional items	<b>84.8</b>	<b>86.8</b>
Realisation of revaluation gains on fixed asset investments sold in the year	<b>0.4</b>	<b>8.1</b>
<b>Historical cost surplus for the year before tax</b>	<b>85.2</b>	<b>94.9</b>
<b>Historical cost surplus for the year after taxation</b>	<b>85.2</b>	<b>94.9</b>

# Balance sheets

as at 31 July 2014

	Note	Consolidated		College	
		2014 £m	2013 £m	2014 £m	2013 £m
<b>Fixed assets</b>					
Tangible assets	11	1,123.8	985.0	1,104.5	965.5
Investments	12, 26	185.5	158.0	139.2	123.8
Investments in joint ventures:					
Share of gross assets	13	50.0	3.4	–	–
Share of gross liabilities	13	(35.1)	(0.7)	–	–
		1,324.2	1,145.7	1,243.7	1,089.3
<b>Endowment assets</b>	14	<b>98.0</b>	<b>96.7</b>	<b>98.0</b>	<b>96.7</b>
<b>Current assets</b>					
Stocks		0.5	0.4	0.2	0.3
Debtors	15	186.4	168.4	200.1	178.8
Investments and short-term deposits	25	–	110.0	–	110.0
Cash at bank and in hand	25	262.6	198.1	259.8	198.1
		449.5	476.9	460.1	487.2
<b>Creditors: amounts falling due within one year</b>	16	<b>(502.0)</b>	<b>(434.1)</b>	<b>(507.6)</b>	<b>(438.6)</b>
<b>Net current (liabilities) / assets</b>		<b>(52.5)</b>	<b>42.8</b>	<b>(47.5)</b>	<b>48.6</b>
<b>Total assets less current liabilities</b>		<b>1,369.7</b>	<b>1,285.2</b>	<b>1,294.2</b>	<b>1,234.6</b>
<b>Creditors: amounts falling due after more than one year</b>	17	<b>(247.2)</b>	<b>(253.8)</b>	<b>(247.2)</b>	<b>(253.8)</b>
<b>Provisions for liabilities</b>	18	<b>(24.6)</b>	<b>(29.3)</b>	<b>(24.6)</b>	<b>(29.3)</b>
<b>Total net assets</b>		<b>1,097.9</b>	<b>1,002.1</b>	<b>1,022.4</b>	<b>951.5</b>
Represented by:					
<b>Deferred capital grants</b>	19	<b>383.5</b>	<b>388.0</b>	<b>381.4</b>	<b>385.7</b>
<b>Endowment funds</b>					
Expendable	20	<b>34.1</b>	<b>30.6</b>	<b>34.1</b>	<b>30.6</b>
Permanent	20	<b>63.9</b>	<b>66.1</b>	<b>63.9</b>	<b>66.1</b>
		<b>98.0</b>	<b>96.7</b>	<b>98.0</b>	<b>96.7</b>
<b>Reserves</b>					
Revaluation reserve	22	<b>18.3</b>	<b>5.2</b>	<b>5.7</b>	<b>5.1</b>
Income and expenditure account	21,22	<b>598.1</b>	<b>512.2</b>	<b>537.3</b>	<b>464.0</b>
		<b>616.4</b>	<b>517.4</b>	<b>543.0</b>	<b>469.1</b>
<b>Total funds</b>		<b>1,097.9</b>	<b>1,002.1</b>	<b>1,022.4</b>	<b>951.5</b>

The financial statements on pages 40–64 were approved by the Council on 21 November 2014 and signed on their behalf by:

Baroness Manningham-Buller, Chair

Professor Alice Gast, President

Mr Muir Sanderson, Chief Financial Officer

# Consolidated cash flow statement

For the year ended 31 July 2014

	Note	2014 £m	2013 £m
<b>Net cash inflow from operating activities</b>	24	<b>120.0</b>	<b>105.7</b>
<b>Returns on investments and servicing of finance</b>			
Income received from endowments		0.1	2.7
Income received from short-term investments		6.3	9.8
Income received from fixed asset investments		–	1.0
Other interest received		0.6	0.5
Interest paid		(5.6)	(5.7)
Interest element of finance lease payments		(5.2)	(4.9)
		<b>3.8</b>	<b>3.4</b>
<b>Capital expenditure and financial investment</b>			
Payments to acquire tangible assets		(202.8)	(103.6)
Purchase of fixed asset investments		(17.5)	(85.5)
Purchase of endowment assets		(5.5)	(97.0)
Total payments to acquire fixed and endowment assets		<b>(225.8)</b>	<b>(286.1)</b>
Receipts from disposal of tangible assets		5.6	28.1
Receipts from disposal of fixed asset investments		3.8	52.2
Receipts from disposal of endowment assets		6.8	57.2
Deferred capital grants received		47.1	25.2
Endowments received		5.5	7.2
Endowments released		(2.9)	–
		<b>(159.9)</b>	<b>(116.2)</b>
<b>Acquisitions and disposals</b>			
Purchase of interest in a joint venture		(2.5)	(0.1)
Receipts from disposal of interest in an associate		10.1	–
		<b>7.6</b>	<b>(0.1)</b>
<b>Management of liquid resources</b>			
Reduction in short term deposits		110.0	55.0
		<b>110.0</b>	<b>55.0</b>
<b>Financing</b>			
Net mortgages and loans repaid		(5.8)	(5.8)
Capital element of finance lease repayments		(0.6)	(0.5)
		<b>(6.4)</b>	<b>(6.3)</b>
<b>Increase in cash</b>	25	<b>67.5</b>	<b>41.5</b>

## Reconciliation of net cash flow to movement in net cash

For the year ended 31 July 2014

	Note	2014 £m	2013 £m
Increase in cash in the period		67.5	41.5
Movement in short-term investments		(110.0)	(55.0)
Movement in loan balances		5.8	5.8
Movement in lease balances		0.6	(18.4)
Change in net cash		<b>(36.1)</b>	<b>(26.1)</b>
Net cash at 1 August		70.2	96.3
Net cash at 31 July	25	<b>34.1</b>	<b>70.2</b>

# Statement of consolidated total recognised gains and losses

For the year ended 31 July 2014

	Note	2014 £m	2013 £m
<b>Surplus after exceptional items</b>		<b>84.8</b>	<b>86.8</b>
Increase in market value of endowment assets	20	–	10.3
Net endowment additions	14, 20	<b>2.6</b>	7.2
Revaluation of investments within fixed assets	22	<b>12.5</b>	6.7
Purchase of treasury shares		–	(0.5)
Subsidiary companies funds moved to reserves		<b>0.4</b>	(0.2)
<b>Total recognised gains relating to the year</b>		<b>100.3</b>	<b>110.3</b>
Opening reserves and endowments		614.1	
<b>Total recognised gains relating to the year</b>		<b>100.3</b>	
<b>Closing reserves and endowments</b>		<b>714.4</b>	

# Statement of principal accounting policies

## 1. Accounting convention

The financial statements have been prepared on a going concern basis under the historical cost convention, as modified by the revaluation of endowment and fixed asset investments, and in accordance with both the *Statement of Recommended Practice: Accounting for Further and Higher Education Institutions (SORP)* and applicable UK accounting standards. The accounting policies have been applied consistently year on year.

## 2. Basis of consolidation

The consolidated financial statements incorporate the financial statements of the College, Imperial College Union and all subsidiary undertakings for the financial year to 31 July. The consolidated income and expenditure account includes the College's share of the income, expenditure and tax of associated undertakings and joint ventures, while the consolidated balance sheet includes investment in associated undertakings and joint ventures at the College's share of their net assets. Associated undertakings are those in which the College has a significant, but not dominant, influence over their commercial and financial policy decisions. Joint ventures represent investments in which the College has joint control.

A separate income and expenditure account for the parent organisation has not been presented because the College has taken advantage of the exemption allowed under s408 of the Companies Act 2006.

For those subsidiary, joint venture and associated undertakings that have different accounting year-end dates, interim accounts to 31st July for these companies have been consolidated. For those subsidiary and associated companies that report under International Financial Reporting Standards for their own financial statements, namely Imperial Innovations Group plc, accounts have been restated to comply with UK Accounting Standards for the purposes of consolidation into these consolidated Group accounts.

## 3. Recognition of income and expenditure

Income from donations, research grants and contracts, and other services rendered is included to the extent of the associated expenditure incurred during the year together with any related contributions towards overhead costs.

Fee income is credited to the income and expenditure account over the period in which students are studying. Where the amount of the tuition fee is reduced, income receivable is shown net of the discount.

All income from short-term deposits and endowments is credited to the income and expenditure account in the period in which it is earned. Income from endowments not expended in accordance with the restrictions of the endowment is transferred from the income and expenditure account to endowments. Income is deferred only when the College has to fulfil conditions before becoming entitled to it or where it has been specified by the donor that the money should be expensed in a future period.

Expenditure incurred relates to the receipt of goods and services. This includes patent costs which are written off in the year that they are incurred rather than being capitalised. A provision for bad debts is estimated on the basis that as debts become older, a higher percentage become irrecoverable.

Where the College disburses funds it has received as paying agent on behalf of the Funding Council or other body, and has no beneficial interest in the funds, the receipt and subsequent disbursement of the funds have been excluded from the income and expenditure account.

## 4. Pension schemes

The College participates in four principal pension schemes which are funded defined benefit schemes. The schemes are contracted-out of the State Second Pension (S2P). The SAUL, USS and FPS schemes are valued formally every three years by professionally qualified and independent actuaries using the Projected Unit method. The NHS Pension scheme is valued every four years using the Aggregate method.

The USS, SAUL and NHS are multi-employer schemes and it is not possible to identify the College's share of the underlying assets and liabilities of the schemes. Therefore, as required by FRS 17, the contributions are charged directly to the income and expenditure account as if the schemes were defined contribution schemes.

The FPS pension scheme is accounted for on the basis of FRS 17. The scheme's assets are included at market value and the scheme's liabilities are measured on an actuarial basis using the projected unit method and discounted at an appropriate rate of return. The College's share of the surplus or deficit of the scheme is recognised as an

asset or liability on the balance sheet, with surplus included only to the extent that it is recoverable through reduced contributions in the future or through refunds from the scheme. The current service cost and past service costs are included within staff costs and the expected return on the scheme's assets, net of the impact of the unwinding of the discount on the scheme's liabilities, is included within endowment income. Actuarial gains and losses, including differences between the expected and actual return on the scheme's assets, are recognised in the statement of total recognised gains and losses.

## 5. Foreign currencies

Transactions denominated in Euros, US dollars and other foreign currencies are recorded at the rate of exchange ruling at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into sterling at year end rates of exchange or, where there are related forward foreign exchange contracts, at contract rates. The resulting exchange differences are recognised as part of income and expenditure.

## 6. Leases

Leases which transfer substantially all of the risks and rewards of ownership of the leased asset are classified as finance leases. Assets held under finance leases together with the related lease obligations are recorded on the balance sheet with initial values equivalent to the purchase price of the asset. The excess of lease payments over recorded lease obligations are treated as finance charges which are amortised over each lease term to give a constant rate of charge on the remaining balance of the obligations.

All other leases are classified as operating leases. Operating lease costs are charged to the income and expenditure account on a straight line basis over the relevant lease term unless another systematic and rational basis is more appropriate.

## 7. Land and buildings

Purchased land and purchased or constructed buildings are stated at cost. Freehold land is not depreciated while leasehold land is depreciated over the life of the lease. Buildings, including service plant, are depreciated over their expected useful lives or at the rate of 2% per annum of their historical cost (no purchased buildings are held on leases of less than 50 years). Where land and buildings are

acquired with the aid of specific grants, the grants are treated as deferred capital grants and released to income at the same rate as depreciation is charged.

Costs incurred in relation to buildings after their initial acquisition are capitalised only to the extent that they increase the expected future benefits beyond those originally assessed. The cost of such enhancements are depreciated at the rate of 2% per annum, or over the life of the asset if shorter. Finance costs which are directly attributable to the construction of land and buildings are capitalised as part of the cost of those assets. Assets under construction are capitalised at cost and not depreciated.

Some accommodation within associated hospitals is occupied rent free by the College but this is approximately offset by College accommodation occupied rent free by them.

A review of impairment of a fixed asset is carried out if events or changes in circumstances indicate that the carrying amount of any fixed asset may not be recoverable.

On adoption of FRS 15, the College followed the transitional provision to retain the book value of land and buildings but not to adopt a policy of revaluations of these properties in the future. These values are retained subject to the requirement to test assets for impairment in accordance with FRS 11.

## 8. Fixtures, fittings, tools and equipment

Fixtures, fittings, tools and equipment, including computers and software, costing less than £50,000 per individual item or group of related items are written off in the year of acquisition. All other items are capitalised.

Capitalised equipment is stated at cost and, once in service, depreciated over its expected useful life or at 20% per annum; equipment acquired for specific research projects is depreciated over the remaining life of the project (generally three years). Assets under construction are capitalised at cost and not depreciated.

Where fixtures, fittings, tools and equipment are acquired with the aid of specific grants they are capitalised and depreciated as above. The related grant is treated as a deferred capital grant and released to income at the same rate as depreciation is charged.

## 9. Reserves

Discretionary reserves are earmarked for specific purposes by the management of the College whereas non-discretionary reserves are legally restricted.

## 10. Investments

Endowment asset investments and listed fixed asset investments are included in the balance sheet at market value less a provision, where appropriate, to reflect restrictions in their marketability. Fixed assets investments that are not listed on a recognised stock exchange are carried at cost less any provision for impairment in their value except where costs are revalued in compliance with accounting standards. Current asset investments are included at the lower of cost and net realisable value. Increases/decreases in value arising on the revaluation of fixed asset investments are carried to the revaluation reserve; a diminution in value is taken to the income and expenditure account to the extent it is not covered by a previous revaluation surplus. Investments in associated companies where the input from the College is represented only by the intellectual property rights are valued at zero historical cost.

## 11. Stocks

Only the value of stocks held in the refectories and central stores are included on the balance sheet. They are valued at the lower of cost and net realisable value.

## 12. Cash flows and liquid resources

Cash flows comprise increases and decreases in cash. Cash includes cash in hand, deposits repayable on demand and overdrafts. Deposits are repayable on demand if they can be withdrawn at any time without notice and without penalty or if a maturity or period of notice of not more than 24 hours has been agreed. No investments, however liquid, are included as cash.

Liquid resources comprise assets held as readily disposable stores of value. They include term deposits, government securities and loan stock held as part of the College's treasury management activities. They exclude any such assets held as endowment asset investments.

## 13. Taxation status

The College is an exempt charity within the meaning of Schedule 2 of the Charities Act 1993 and as such is a charity within the meaning of Para 1 of Schedule 6 to the Finance Act 2010. Accordingly, the College is potentially exempt from taxation in respect of income or capital gains received within categories covered by Sections 478-488 of the Corporation Taxes Act 2010 (CTA 2010) (formerly enacted in Section 505 of the Income and Corporation Taxes Act 1988 (ICTA)) or Section 256 of the Taxation of Chargeable Gains Act 1992 to the extent that such income or gains are applied to exclusively charitable purposes. The College receives no similar exemption in respect of Value Added Tax. The College's subsidiary companies are subject to corporation tax and VAT in the same way as any commercial organisation.

## 14. Share based payments

Certain employees (and Directors) of Imperial Innovations Group plc, an associate of the College, receive remuneration in the form of share based payments. Equity settled share based payments are measured at fair value, using the binomial option pricing model, at the date of grant. This fair value is expensed on a straight-line basis to the income and expenditure account over the vesting period, based on an estimate of shares that will eventually vest. A corresponding credit is taken to the share-based payment reserve.

# Notes to the accounts

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<b>1. Funding Council grants</b>	Note	<b>2014 £m</b>	<b>2013 £m</b>
Recurrent – teaching		<b>40.0</b>	46.2
Recurrent – research		<b>98.4</b>	99.5
Higher Education Innovation Fund (HEIF)		<b>2.4</b>	2.1
Project capital allocations		<b>14.9</b>	7.4
Other specific grants		<b>1.3</b>	1.5
<hr/>			
Grants from Higher Education Funding Council for England (HEFCE)		<b>157.0</b>	156.7
Transferred to deferred capital grants in the year			
Buildings	19	<b>(14.1)</b>	(5.3)
Equipment	19	<b>(0.7)</b>	(2.1)
Deferred capital grants released in the year			
Buildings	19	<b>14.5</b>	14.5
Equipment	19	<b>4.7</b>	5.1
<hr/>		<b>161.4</b>	168.9

<b>2. Academic fees and support grants</b>	<b>Registered student numbers</b>		<b>2014 £m</b>	<b>2013 £m</b>
	<b>31 Dec 2013</b>	<b>31 Dec 2012</b>		
Full-time home and European Union students	<b>9,891</b>	9,915	<b>53.9</b>	48.2
Full-time overseas students	<b>4,844</b>	4,499	<b>108.3</b>	103.9
Part-time students	<b>1,196</b>	1,209	<b>8.3</b>	8.7
Research training support grants			<b>21.2</b>	21.1
Short course fees			<b>5.1</b>	4.4
<hr/>			<b>196.8</b>	186.3

Following clarification from HESA, tuition fees remitted of £12.2 million have been treated as a discount to tuition fee income in 2014 and so are not included here. In 2013 fees remitted of £9.7 million were included in fee income.

Research training support grants include £3.7 million (£3.6 million in 2013) of tuition fees paid in respect of full-time home and European Union students.

Total numbers of full-time and part time students are 15,931 in 2014 and 15,623 in 2013 (excluding those on research training support grants and short courses).



<b>3. Research grants and contracts</b>	<b>2014 £m</b>	<b>2013 £m</b>
UK research councils	108.3	102.3
UK government departments, local and health authorities	57.0	49.3
UK industry, commerce and public corporations	21.0	23.2
UK charities	64.7	66.4
UK other	3.0	1.4
European Commission	41.2	35.8
Other European Union and overseas	55.7	51.1
	<b>350.9</b>	<b>329.5</b>
Research income relating to the direct expenditure incurred during the year	<b>285.8</b>	<b>269.1</b>
Contributions towards overhead costs	<b>65.1</b>	<b>60.4</b>
	<b>350.9</b>	<b>329.5</b>

Total research income excludes £12.9 million (£6.2 million in 2013) deferred capital grants received in 2014 but includes £10.3 million (£12.8 million in 2013) released from deferred capital grants.

UK other research grants and contracts include restricted grant aid from the Big Lottery Fund (BLF). The total amount of funding awarded for projects ongoing in 2014 includes £14.3 million (2013: £14.5 million) to fund an interdisciplinary study of the natural environments, focusing on biodiversity and the skills, tools and training associated with the identification and recording of flora and fauna. The total amount awarded had been received as at 31 July from the Funder (2013: £14.2 million). A total of £14.3 million has been spent and recognised as income for the project to date (£4.7 million by the College, and £9.6 million by unrelated third party partners). Of the amounts recorded as income to date by College £0.2 million was recognised in the year to 31 July 2014 (2013: £0.7 million).

In December 2013 a new restricted grant of £3 million was awarded to the College by BLF to fund a UK-wide expansion of the above project. Of this total awarded £0.7 million had been received as at 31 July from the Funder. A total of £0.3 million has been spent and recognised in the year (£0.2 million by the College, and £0.1 million by unrelated third party partners).

<b>4. Other income</b>	<b>2014 £m</b>	<b>2013 £m</b>
Health and hospital authorities	16.4	17.2
Consultancies and scientific services	18.8	17.6
Donations	2.6	4.8
Residences, catering and conferences	48.7	45.5
Rents receivable	11.0	6.0
Commissions and fees	2.3	1.9
Other departmental income	28.3	16.9
Released from deferred capital grants on land and buildings	2.0	1.7
Released from deferred capital grants on equipment	0.1	0.1
Other income	17.8	14.9
	<b>148.0</b>	<b>126.6</b>

<b>5. Endowment and investment income</b>	Note	<b>2014 £m</b>	<b>2013 £m</b>
Income from expendable endowment investments	20	0.5	0.6
Income from permanent endowment investments	20	1.1	1.7
Income from long-term investments		–	1.0
Income from short-term investments		5.2	8.7
Other interest receivable		0.6	0.5
		<b>7.4</b>	<b>12.5</b>

## Notes to the accounts

<b>6. Staff</b>	Note	<b>2014 £m</b>	<b>2013 £m</b>
Staff costs			
Wages and salaries		<b>346.4</b>	322.9
Social security costs		<b>30.6</b>	28.6
Other pension costs	31	<b>43.2</b>	39.2
		<b>420.2</b>	390.7
Restructuring costs		<b>1.2</b>	2.2
		<b>421.4</b>	392.9
		<b>2014 £000</b>	<b>2013 £000</b>
Emoluments of the President & Rector			
Remuneration		<b>368</b>	309
Other		<b>21</b>	21
		<b>389</b>	330

The President & Rector has elected not to join the pension scheme and therefore no employer's contributions have been paid.

Aggregate payments for compensation for loss of office paid to senior members of staff earning in excess of £100,000 per annum (nil in 2014, two in 2013)

	<b>2014 £000</b>	<b>2013 £000</b>
Payments in respect of loss of office	–	154

Payments in respect of loss of office comprise termination payments paid directly to individuals in respect of loss of office, plus contributions made towards legal expenses.

All compensation in respect of loss of office has been internally funded by the College.

	<b>Full-Time Equivalent</b>		<b>Headcount</b>	
	<b>2014 Number</b>	2013 Number	<b>2014 Number</b>	2013 Number
Staff numbers by major category				
Academic and Research	<b>3,692</b>	3,417	<b>3,982</b>	3,659
Professional services	<b>2,435</b>	2,292	<b>2,606</b>	2,437
Technical services	<b>532</b>	526	<b>549</b>	541
Operational services	<b>470</b>	423	<b>594</b>	454
Learning & Teaching	<b>111</b>	73	<b>153</b>	99
	<b>7,240</b>	6,731	<b>7,884</b>	7,190

The Full Time Equivalent (FTE) number is based on the headcount but adjusted to include only the pro rata element of part-time staff. The numbers include staff employed by the subsidiary companies and the Imperial College Union.

Remuneration of higher paid staff (excluding the President & Rector):	Including consultancies		Excluding consultancies	
	2014 Number	2013 Number	2014 Number	2013 Number
£100,000-£109,999	87	74	84	70
£110,000-£119,999	43	58	41	52
£120,000-£129,999	36	29	35	26
£130,000-£139,999	21	22	17	22
£140,000-£149,999	39	30	41	30
£150,000-£159,999	25	26	26	24
£160,000-£169,999	17	14	14	14
£170,000-£179,999	15	13	14	14
£180,000-£189,999	17	13	14	10
£190,000-£199,999	9	6	8	7
£200,000-£209,999	6	4	5	4
£210,000-£219,999	2	4	2	4
£220,000-£229,999	1	–	1	1
£230,000-£239,999	1	5	–	4
£240,000-£249,999	2	1	3	–
£250,000-£259,999	4	3	2	3
£260,000-£269,999	1	2	1	2
£270,000-£279,999	1	1	1	1
£280,000-£289,999	1	–	1	–
£290,000-£299,999	1	–	1	–
£300,000-£309,999	2	4	2	4
£330,000-£339,999	1	–	1	–
£340,000-£349,999	1	–	–	–
£350,000-£359,999	1	1	–	–
£360,000-£369,999	1	–	–	–
£380,000-£389,999	–	1	–	–
£390,000-£399,999	–	1	1	–
£410,000-£419,999	1	–	1	–
£440,000-£449,999	1	–	–	–

Remuneration of higher paid staff excludes employer's pension and National Insurance contributions, but includes payments to staff for NHS Distinction Awards and is presented with and without private consultancy services made through subsidiaries.

## Notes to the accounts

<b>7. Other operating expenses</b>	<b>2014 £m</b>	<b>2013 £m</b>
Research grants and contracts	111.9	107.1
Consultancies and scientific services	2.5	7.7
Short courses	1.8	1.8
Expenditure in academic departments	39.5	59.9
Residences, catering and conferences	25.2	26.3
Central support services	23.7	19.8
Fellowships, scholarships and prizes	29.4	11.4
Books, periodicals and other library expenditure	8.1	7.7
Facilities and maintenance of premises	52.5	46.3
Auditors' remuneration	0.2	0.2
Auditors' fees in respect of non-audit services	–	0.1
Other, including Imperial College Union	8.2	4.1
	<b>303.0</b>	<b>292.4</b>

Fellowships, scholarships and prizes in 2014 include both central and departmental spend. In 2013 they included only central spend with the departmental scholarships of £19 million shown within expenditure in academic departments.

Included within Residences, catering and conferences is £6.5 million of operating lease payments in respect of the Wood Lane Studios student accommodation block. Imperial is committed to £6.5 million of operating lease payments in the following year. The lease commitment will expire more than five years from the reporting date.

<b>8. Interest and other finance costs</b>	<b>2014 £m</b>	<b>2013 £m</b>
Bank and other loans wholly repayable after more than one year	5.6	5.7
Finance lease interest	5.2	4.9
Other financing costs	0.6	0.6
	<b>11.4</b>	<b>11.2</b>

## Notes to the accounts

<b>9. Analysis of expenditure by activity</b>	Staff costs £m	Depreciation £m	Other operating expenses £m	Interest and other finance costs £m	<b>2014 Total £m</b>	<b>2013 Total £m</b>
Academic departments	180.8	2.2	41.3	0.2	<b>224.5</b>	230.1
Academic services:						
Libraries and information services	3.9	–	8.1	–	<b>12.0</b>	11.5
Central computer and computer networks	11.2	0.2	7.1	–	<b>18.5</b>	16.3
Other	4.1	–	1.4	–	<b>5.5</b>	5.2
Total academic services	19.2	0.2	16.6	–	<b>36.0</b>	33.0
Research grants and contracts	159.4	10.3	111.9	–	<b>281.6</b>	269.1
Residences, catering and conferences	9.7	7.7	25.5	5.2	<b>47.8</b>	42.6
Premises	14.1	37.3	52.5	–	<b>103.9</b>	96.0
Administration and central services:						
Central administration	21.7	–	10.7	–	<b>32.4</b>	29.3
General educational expenditure	3.3	–	32.2	–	<b>35.5</b>	17.0
Staff and student facilities	5.5	0.3	4.9	–	<b>10.7</b>	10.2
Total administration and central services	30.5	0.3	47.8	–	<b>78.6</b>	56.5
Other expenditure:						
Consultancies and scientific services	5.7	–	2.5	–	<b>8.2</b>	12.9
Other, including restructuring costs	2.0	–	5.2	6.0	<b>13.2</b>	14.7
Total other expenditure	7.7	–	7.7	6.0	<b>21.4</b>	27.6
	421.4	58.0	303.0	11.4	<b>793.8</b>	754.9

<b>10. Segmental reporting</b>	Segment Total Income £m	Surplus/(deficit) before tax, minority interest and exceptional items £m	Total assets £m	Net assets £m
<b>Year ended 31 July 2014</b>				
University	844.4	53.5	1,560.8	791.2
The Endowment	10.1	6.4	310.9	306.7
	<b>854.5</b>	<b>59.9</b>	<b>1,871.7</b>	<b>1,097.9</b>
<b>Year ended 31 July 2013</b>				
University	813.0	61.8	1,506.5	789.9
The Endowment	9.0	3.1	212.8	212.2
	<b>822.0</b>	<b>64.9</b>	<b>1,719.3</b>	<b>1,002.1</b>

The University segment represents the core academic activities of education and research.

The Endowment manages assets not required for the core academic mission of the College with a pure investment focus, in order to provide steady capital growth and a regular income to support the College's academic objectives.

Included within the Endowment's assets of £310.9 million are the assets in respect of the endowment funds of £98 million (see note 14).

## Notes to the accounts

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11. Tangible assets	Consolidated				
	Land and buildings		Fixtures, fittings, tools and equipment £m	Assets under construction £m	Total £m
	Freehold £m	Leasehold £m			
<b>Cost</b>					
At 1 August 2013	482.6	694.3	219.0	65.3	1,461.2
Additions	143.3	6.0	10.3	46.8	206.4
Transfers	19.1	11.6	6.7	(37.4)	–
Disposals	(8.6)	–	(2.9)	(1.0)	(12.5)
At 31 July 2014	<b>636.4</b>	<b>711.9</b>	<b>233.1</b>	<b>73.7</b>	<b>1,655.1</b>
<b>Depreciation</b>					
At 1 August 2013	126.1	181.7	168.4	–	476.2
Charge for year	15.0	24.4	18.6	–	58.0
Eliminated on disposals	–	–	(2.9)	–	(2.9)
At 31 July 2014	<b>141.1</b>	<b>206.1</b>	<b>184.1</b>	<b>–</b>	<b>531.3</b>
<b>Net book value</b>					
At 31 July 2014	<b>495.3</b>	<b>505.8</b>	<b>49.0</b>	<b>73.7</b>	<b>1,123.8</b>
At 31 July 2013	356.5	512.6	50.6	65.3	985.0
	College				
	Land and buildings		Fixtures, fittings, tools and equipment £m	Assets under construction £m	Total £m
	Freehold £m	Leasehold £m			
<b>Cost</b>					
At 1 August 2013	482.6	670.8	216.9	65.3	1,435.6
Additions	143.3	5.4	10.3	46.8	205.8
Transfers	19.1	11.6	6.7	(37.4)	–
Disposals	(8.6)	–	(2.9)	(1.0)	(12.5)
At 31 July 2014	<b>636.4</b>	<b>687.8</b>	<b>231.0</b>	<b>73.7</b>	<b>1,628.9</b>
<b>Depreciation</b>					
At 1 August 2013	126.1	177.5	166.5	–	470.1
Charge for year	15.0	23.6	18.6	–	57.2
Eliminated on disposals	–	–	(2.9)	–	(2.9)
At 31 July 2014	<b>141.1</b>	<b>201.1</b>	<b>182.2</b>	<b>–</b>	<b>524.4</b>
<b>Net book value</b>					
At 31 July 2014	<b>495.3</b>	<b>486.7</b>	<b>48.8</b>	<b>73.7</b>	<b>1,104.5</b>
At 31 July 2013	356.5	493.3	50.4	65.3	965.5

Included at cost within land and buildings for the College and Group as at 31 July 2014 is a heritage asset, being the nineteenth-century built Queen's Tower, currently insured at a value of £10.7 million (2013: £10.4 million).

## 11. Tangible assets (continued)

	2014 £m	2013 £m
<b>Assets held under finance leases, capitalised and included in tangible fixed assets:</b>		
Cost	95.6	95.6
Accumulated depreciation	(5.7)	(3.7)
Net book value	89.9	91.9

Griffon Studios, the 566 postgraduate student apartment block, is held under a 45 year finance lease following its sale to and leaseback from Legal and General Pensions Ltd in 2012.

12. Investments	Note	Consolidated		College	
		2014 £m	2013 £m	2014 £m	2013 £m
Investment in subsidiary companies at cost		–	–	10.2	9.8
Investment in other associated undertakings		75.9	52.9	6.2	6.6
Other fixed asset investments	26	109.6	105.1	122.8	107.4
		<b>185.5</b>	<b>158.0</b>	<b>139.2</b>	<b>123.8</b>

As at 31 July 2014 the College's direct equity holdings in subsidiary and principal associated undertakings were as follows:

Undertaking	Activity	Holding %
<b>Subsidiaries</b>		
IC Consultants Ltd	Consultancy and scientific services	100.0
Imperial Activities Ltd	Commercial property services	100.0
Extracalm Company Ltd	Administrative services	100.0
Private Patient Healthcare Ltd	Private patient healthcare services	100.0
Burlington Danes Construction Ltd	Construction and property services	100.0
Imperial Bioincubator Ltd	Provision of facilities to spin-out companies	100.0
Imperial (Forest House) Ltd	Commercial property services	100.0
Imperial College Company Maker Ltd	Dormant	100.0
Imperial College Ltd	Dormant	100.0
Imperial MBA Ltd	Dormant	100.0
Imperial College London Ltd	Dormant	100.0
Wye Foundation Trust	Charitable Trust	100.0
Extracalm Cleaning LLP	Cleaning services partnership	partnership
Imperial College Union	Student activities	
<b>Joint Ventures</b>		
Bio Nano Centre Ltd	Development of biomedical and nanotechnology-based products	50.0
Imperial West Ltd	Commercial property services	50.0
Woodlands 1 LLP	Commercial property services	49.9
Imperial West Developments LLP	Dormant	49.9
<b>Associates</b>		
Imperial Innovations Group plc	Commercialisation of ideas and inventions	20.1
Imanova Ltd	Environmental consultancy and scientific services	25.0
GMEC Management Company Ltd	Promotion of collaborative biomedical research	16.7

All companies are registered in England. Imperial College Union is an unincorporated association fully consolidated by the College.

# Notes to the accounts

## 13. Investment in joint ventures

	Share of gross assets £m	Share of gross liabilities £m
At 1 August 2013	3.4	(0.7)
Woodlands 1 LLP	42.8	(33.7)
Imperial West Ltd	3.9	(0.9)
Bio Nano Centre Ltd	(0.1)	0.2
<b>At 31 July 2014</b>	<b>50.0</b>	<b>(35.1)</b>

Woodlands 1 LLP, a limited liability partnership, owns and operates a 606 bed postgraduate accommodation development on the Imperial West site in White City. The College has entered into a rental guarantee agreement over these bed spaces with the joint venture. In 2012–13 this was included in the financial statements as an investment asset but was reclassified following a reassessment of this investment as a commercial joint venture.

In addition, the College holds a 50% share in both Imperial West Ltd, a UK private limited company set up to achieve planning permissions at the Imperial West site and Bio Nano Centre Ltd, a UK company limited by guarantee that specialises in the development of biomedical and nanotechnology-based products.

These joint ventures have been consolidated using the gross equity method.

## 14. Endowment assets

	Consolidated and College		
	Securities/ Investments £m	Cash £m	Total £m
At 1 August 2013	85.7	11.0	96.7
New endowments	–	5.5	5.5
Endowments released	–	(2.9)	(2.9)
Investments made	5.5	(5.5)	–
Asset redemptions (release of capital)	(6.8)	6.8	–
Investment income	1.5	0.1	1.6
Expenditure	0.1	(3.0)	(2.9)
<b>At 31 July 2014</b>	<b>86.0</b>	<b>12.0</b>	<b>98.0</b>

## 15. Debtors

	Consolidated		College	
	2014 £m	2013 £m	2014 £m	2013 £m
<b>Amounts falling due within one year</b>				
Amounts due on research grants and contracts				
Debtors	27.4	29.2	27.4	29.2
Work in progress	49.9	43.2	49.9	43.2
Other debtors	95.7	70.1	92.3	67.0
Prepayments and accrued income	13.7	26.1	13.3	25.8
Amounts owed by group undertakings	–	–	17.5	13.8
Provision for bad debts	(0.3)	(0.2)	(0.3)	(0.2)
	<b>186.4</b>	<b>168.4</b>	<b>200.1</b>	<b>178.8</b>

Included within Other debtors are invoices totalling £71.5 million (£52.3 million in 2013) in respect of tuition fees for courses starting in the next financial year with the income deferred on the balance sheet until the start of the course.



16. Creditors: amounts falling due within one year	Consolidated		College	
	2014 £m	2013 £m	2014 £m	2013 £m
Bank overdraft	–	2.0	20.6	25.7
Bank loans	5.8	5.8	5.8	5.8
Obligations under finance leases	0.6	0.6	0.6	0.6
Deferred lease premiums	0.3	0.3	0.3	0.3
Research payments received on account	234.3	206.2	234.3	206.2
Creditors	22.2	24.1	19.3	14.2
Social security and other taxation payable	10.5	9.0	10.4	8.9
Accruals and deferred income	228.3	186.1	213.7	173.3
Amounts owed to group undertakings	–	–	2.6	3.6
	<b>502.0</b>	<b>434.1</b>	<b>507.6</b>	<b>438.6</b>

17. Creditors: amounts falling due after more than one year	Consolidated		College	
	2014 £m	2013 £m	2014 £m	2013 £m
Bank loans	142.3	148.1	142.3	148.1
Obligations under finance leases	91.8	92.4	91.8	92.4
Deferred lease premiums	13.1	13.3	13.1	13.3
	<b>247.2</b>	<b>253.8</b>	<b>247.2</b>	<b>253.8</b>

**The maturity profile of the carrying amount of the Group's liabilities, at 31 July was as follows:**

	Bank loans £m	Finance leases £m	2014 £m	2013 £m
Less than one year	5.8	0.6	6.4	6.4
In more than one year but no more than two years	5.8	0.7	6.5	6.4
In more than two years but no more than five years	17.3	2.2	19.5	19.4
In more than five years	119.2	88.9	208.1	214.7
	<b>148.1</b>	<b>92.4</b>	<b>240.5</b>	<b>246.9</b>
Less than one year	(5.8)	(0.6)	(6.4)	(6.4)
	<b>142.3</b>	<b>91.8</b>	<b>234.1</b>	<b>240.5</b>

The bank loans comprise four unsecured sterling borrowing facilities.

1. A 30-year £50 million private placement arranged through Royal Bank of Scotland with a small number of institutions. It takes the form of loan notes. The facility was drawn down in a single amount in March 2003 and is not repayable until 2033. Interest at a fixed rate of 5.39% is payable annually in arrears.
2. A 15-year £23.2 million facility from the European Investment Bank. The facility was drawn in a single amount in December 2005 and repayments started in December 2009. Interest at variable rates is payable quarterly in arrears.

3. A 50-year £50 million private placement arranged through Royal Bank of Scotland with a small number of institutions. It takes the form of loan notes. The facility was drawn in a single amount in July 2006 and is not repayable until 2056. Interest at a fixed rate of 4.84% is payable annually in arrears.

4. A 15-year £50 million facility from the European Investment Bank. The facility was drawn in a single amount in May 2008 and repayments started in 2011. Interest at variable rates is payable quarterly in arrears.

## Notes to the accounts

<b>18. Provisions for liabilities</b>	Restructuring provision £m	Decommissioning of engineering facility £m	<b>Total £m</b>
<b>Consolidated and College</b>			
At 1 August 2013	0.4	28.9	29.3
Provided in the year	0.1	1.0	1.1
Utilised in the year	(0.2)	(6.1)	(6.3)
Written back in the year	(0.1)	–	(0.1)
Unwinding of the discount	–	0.6	0.6
At 31 July 2014	<b>0.2</b>	<b>24.4</b>	<b>24.6</b>

A number of restructuring programmes are currently underway within the College with the aim of reducing costs.

<b>19. Deferred capital grants</b>	<b>Consolidated</b>			<b>College</b>
	HEFCE and JISC grants £m	Other grants and benefactions £m	<b>Total £m</b>	<b>Total £m</b>
At 1 August 2013				
Buildings	267.5	87.4	354.9	352.8
Equipment	21.5	11.6	33.1	32.9
<b>Total</b>	<b>289.0</b>	<b>99.0</b>	<b>388.0</b>	<b>385.7</b>
Cash receivable				
Buildings—specific funding (including transfers)	14.1	(0.1)	14.0	14.0
Equipment—specific funding	0.7	12.9	13.6	13.6
<b>Total</b>	<b>14.8</b>	<b>12.8</b>	<b>27.6</b>	<b>27.6</b>
Eliminated on disposals				
Buildings—specific funding	–	(0.6)	(0.6)	(0.6)
Equipment—specific funding	–	–	–	–
<b>Total</b>	<b>–</b>	<b>(0.6)</b>	<b>(0.6)</b>	<b>(0.6)</b>
Released to income and expenditure account				
Buildings	(14.5)	(4.4)	(18.9)	(18.7)
Equipment	(4.7)	(7.9)	(12.6)	(12.6)
<b>Total</b>	<b>(19.2)</b>	<b>(12.3)</b>	<b>(31.5)</b>	<b>(31.3)</b>
At 31 July 2014				
Buildings	<b>267.1</b>	<b>82.3</b>	<b>349.4</b>	<b>347.5</b>
Equipment	<b>17.5</b>	<b>16.6</b>	<b>34.1</b>	<b>33.9</b>
<b>Total</b>	<b>284.6</b>	<b>98.9</b>	<b>383.5</b>	<b>381.4</b>

**20. Endowment funds****Consolidated and College**

	Unrestricted permanent £m	Restricted permanent £m	Total permanent £m	Restricted expendable £m	2014 Total £m	2013 Total £m
At 1 August						
Capital	11.4	53.6	65.0	38.8	103.8	86.3
Accumulated income	–	1.1	1.1	(8.2)	(7.1)	(7.2)
	11.4	54.7	66.1	30.6	96.7	79.1
New endowments	–	1.2	1.2	4.3	5.5	7.2
Endowments released	–	(2.9)	(2.9)	–	(2.9)	–
Investment income	0.2	0.9	1.1	0.5	1.6	2.3
Expenditure	(0.2)	(1.4)	(1.6)	(1.3)	(2.9)	(2.2)
	–	(0.5)	(0.5)	(0.8)	(1.3)	0.1
Increase/(decrease) in market value	0.1	(0.1)	–	–	–	10.3
At 31 July	<b>11.5</b>	<b>52.4</b>	<b>63.9</b>	<b>34.1</b>	<b>98.0</b>	<b>96.7</b>
Represented by:						
Capital	11.5	51.8	63.3	43.1	106.4	103.8
Accumulated income	–	0.6	0.6	(9.0)	(8.4)	(7.1)
	<b>11.5</b>	<b>52.4</b>	<b>63.9</b>	<b>34.1</b>	<b>98.0</b>	<b>96.7</b>

Included within endowments are a number of permanent funds with a deficit of accumulated income as at 31 July 2014. Within unrestricted permanent endowments there are 3 funds with a combined deficit balance of £0.2 million (2013: 2 funds with a deficit totalling £0.1 million). Within restricted permanent endowments there are 52 individual funds with a total combined deficit of £2.3 million (2013: 49 funds with a total combined deficit of £1.8 million). The College monitors funds in a deficit position and it is envisaged that under the current arrangement for the College investments portfolio, the deficit will be reduced in future years.

<b>21. Income and expenditure account</b>	<b>Consolidated £m</b>	<b>College £m</b>
Balance at 1 August 2013	512.2	464.0
Surplus for the year retained within general reserves	86.1	73.9
Transfers between reserves and other movements	(0.2)	(0.6)
Balance at 31 July 2014	<b>598.1</b>	<b>537.3</b>

## Notes to the accounts

22. Statement of movements on reserves					Consolidated
	Balance 1 Aug 2013 £m	Surplus for the year £m	Transfer between reserves £m	Movement in year £m	Balance 31 July 2014 £m
Specific non-discretionary reserves					
Imperial College Union funds	3.1	–	0.3	–	3.4
Subsidiary and associate companies' reserves	45.1	–	11.9	0.4	57.4
	48.2	–	12.2	0.4	60.8
College income and expenditure account	464.0	86.1	(12.8)	–	537.3
Total income and expenditure account	512.2	86.1	(0.6)	0.4	598.1
Revaluation reserve	5.2	–	0.6	12.5	18.3
Total reserves	517.4	86.1	–	12.9	616.4

The College revaluation reserve had an opening balance of £5.1 million and a closing balance of £5.7 million as at 31 July 2014.

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### 23. Related party transactions

For some years the College has maintained a Register of Interests of all Governors, Academic and Professional Services staff. Policies incorporated within the College's Financial Regulations require an individual to declare an interest and withdraw from any commercial discussions should a conflict of interest potentially arise. Written assurances have been obtained from all Governors and senior officers of the College in respect of themselves and their close family that for the year to 31 July 2014 they have not unduly influenced any transaction between the College and a related party, as defined by FRS 8.

Commercial relationships with companies or other organisations that might be regarded as related parties have been reviewed. During the year, the College purchased goods and services amounting to £2.6 million and received research grants and contracts amounting to £28.3 million from such parties. Research grants include £22.0 million from the Wellcome Trust where Baroness Manningham-Buller is a Governor, Mr Nick Moakes is Managing Director – Investments and a member of the Investment Committee and Mr Stewart Newton was a member of the Investment Committee until September 2013. The Wellcome Trust has detailed guidelines and controls which require that Governors withdraw from any discussion or decision making on the award of grants where there may be a conflict of interest. Research contract income also includes £1.6 million from Rolls Royce plc where Mr Iain Conn was a Non-Executive Director until May 2014.

A number of College employees also hold positions in the Imperial College Healthcare NHS Trust.

In common with many universities, senior members of the College sit on Research Councils, other NHS Trust boards and other grant awarding bodies which have their own internal procedures to avoid potential conflicts of interest.

A number of other College employees own ordinary shares in Imperial Innovations Group plc, an associate of the College. The total shareholding owned by College employees continues to represent less than one half of one per cent of the issued share capital. In addition Mr Stewart Newton, the Hon Robert Rayne and Mr Jeremy Newsum all have shareholdings in Imperial Innovations Group plc.

The College has close relationships with a number of West London NHS Trusts with whom the College shares a number of sites and facilities. College staff work closely with those Trusts particularly in the clinical service areas.

The Group has an interest in a number of joint ventures and associates which are disclosed in note 12. The Hon Robert Rayne is a Director of LMS Capital in which he has a shareholding. LMS Capital is a significant investor in Voreda Real Estate Fund LP, which is the College's joint venture partner in Woodlands 1 LLP. The College has an number of commercial relationships with Voreda as disclosed in notes 13 and 27.

**24. Reconciliation of consolidated surplus on ordinary activities to net cash inflow from operating activities**

	2014 £m	2013 £m
Surplus on ordinary activities	60.7	67.1
Depreciation	58.0	58.4
Deferred capital grants released to income	(31.5)	(34.3)
Endowment and investment income	(7.4)	(12.5)
Interest payable	11.4	11.2
Increase in debtors	(20.3)	(41.2)
Increase in creditors	52.7	60.5
Decrease in provisions	(5.3)	(3.5)
Other non-cash items	1.7	–
Net cash inflow from operating activities	120.0	105.7

**25. Analysis of changes in net cash**

	Balance 1 Aug 2013 £m	Cash flow £m	Non-cash changes £m	Balance 31 Jul 2014 £m
Cash at bank and in hand	198.1	64.5	–	262.6
Endowment assets	11.0	1.0	–	12.0
Bank overdraft	(2.0)	2.0	–	–
	207.1	67.5	–	274.6
Short-term investments	110.0	(110.0)	–	–
Debt due within one year	(5.8)	5.8	(5.8)	(5.8)
Debt due after one year	(148.1)	–	5.8	(142.3)
Finance leases due within one year	(0.6)	0.6	(0.6)	(0.6)
Finance leases due after one year	(92.4)	–	0.6	(91.8)
	70.2	(36.1)	–	34.1

Short-term investments represent deposits with terms of up to 12 months.

**26. Fixed asset investments**

	Note	Consolidated and College		
		Balance 1 Aug 2013 £m	Movements in year £m	Balance 31 Jul 2014 £m
Subsidiary undertakings' investments		0.1	–	0.1
Other investments		105.0	4.5	109.5
Other fixed asset investments	12	105.1	4.5	109.6
Investments in associated undertakings		52.9	23.0	75.9
Fixed asset investments	12	158.0	27.5	185.5
<b>Other fixed asset investments consist of:</b>		<b>£m</b>	<b>£m</b>	<b>£m</b>
Francis Crick Institute		25.6	8.4	34.0
Woodlands 1 LLP	13	10.0	(10.0)	–
Securities		64.8	6.3	71.1
Other		4.6	(0.2)	4.4
		105.0	4.5	109.5

# Notes to the accounts

<b>27. Exceptional items</b>	<b>2014 £m</b>	<b>2013 £m</b>
Profit from sale of fixed assets	2.7	21.9
Profit from the deemed disposal of interest in associated undertaking	16.8	–
Profit from disposal of interest in an associated undertaking	5.4	–
	<b>24.9</b>	<b>21.9</b>

In July 2014, the College sold a 150-year lease over land at its Imperial West site in White City to Voreda for a mix of both cash and non cash consideration totalling £10.9 million. Although the cash proceeds received were £2 million, the accounting profit on disposal realised within these financial statements totalled £2.7 million.

In June 2014, the Group sold 2.5 million shares in Imperial Innovations for £10 million recognising a profit of £5.4 million. Following this, and Imperial Innovation’s fundraising also carried out in June 2014, the Group’s percentage investment decreased from 30.3% to 20.1%. The Group recorded a deemed profit of £16.8 million from dilution of interest in Imperial Innovations.

<b>28. Capital commitments</b>	<b>Consolidated and College</b>	
	<b>2014 £m</b>	<b>2013 £m</b>
Capital commitments for major building projects contracted at 31 July	<b>92.4</b>	<b>12.1</b>

Included in capital commitments is £73.3 million in respect of buildings at College’s Imperial West site in White City.

## 29. Contingent assets and liabilities

The College is involved in a number of legal cases and subject to a number of overage clauses. No material financial liabilities are anticipated.

## 30. Post balance sheet events

On 19 November 2014 the College entered in a £140 million credit facility with the European Investment Bank. Funds can be drawn down from the facility at either a fixed or floating interest rate and will be repayable over a maximum of 25 years.

## 31. Pension schemes

The College participates in four separate, independently managed, defined benefit, occupational pension schemes, which are contracted out of the State Second Pension (S2P); each is valued by professionally qualified and independent actuaries, triennially except the NHS Scheme which is quadrennially. The USS, SAUL and NHS pension schemes are multi-employer schemes and it is not possible to identify the College’s share of the underlying assets and liabilities of the schemes on a consistent and reasonable basis and hence, as required by FRS 17, contributions to the schemes are accounted for as if they were defined contribution schemes. As a result, the amounts charged to the income and expenditure account represent the contributions payable to the schemes in respect of the accounting period. Both USS and SAUL are “last man standing” schemes wherein in the event of the insolvency of any of the participating employers, the amount of any pension funding shortfall (which cannot otherwise be recovered) in respect of that employer will be spread across the remaining participant employers and reflected in the next actuarial valuation.

Imperial Consultants Ltd, a subsidiary of the College, operates a defined contribution pension scheme for its employees with contributions being charged to the income and expenditure account in the period to which they relate.

### USS

Staff paid on academic and academic-related scales, who are otherwise eligible, can acquire pension rights through the Universities Superannuation Scheme (USS), which is a national scheme administered centrally for UK universities.

The assets of the scheme are held in a separate fund administered by the trustee, Universities Superannuation Scheme Limited. The latest triennial actuarial valuation of the scheme was as at 31st March

2011. The triennial valuation was carried out using the projected unit method. The financial assumptions were derived from market yields prevailing at the valuation date. At the valuation date, the value of the assets of the scheme was £32,433.5 million and the value of the scheme’s technical provisions was £35,343.7 million, indicating a shortfall of £2,910.2 million. The assets therefore were sufficient to cover 92% of the benefits which had accrued to members after allowing for expected future increases in earnings.

Under the Pension Protection Fund regulations introduced by the Pensions Act 2004 the Scheme was 93% funded; on a buy-out basis the assets would have been approximately 57% of the amount necessary to secure all the USS benefits with an insurance company; and using the FRS 17 formula as if USS was a single employer scheme, using a AA bond discount rate of 5.5% per annum based on spot yields, the actuary estimated that the funding level at 31 March 2011 was 82%.

The actuary has estimated that the funding level as at 31 March 2014 under the new scheme specific funding regime had fallen from 92% to 85%. This estimate is based on the results from the valuation at 31 March 2011 allowing primarily for investment returns and changes to market conditions. On the FRS 17 basis, using an AA bond discount rate of 4.5% per annum based on spot yields, the actuary estimated that the funding level at 31 March 2014 was 75%. An estimate of the funding level measured on a historic gilts basis at that date was approximately 61%.

At 31 March 2014, USS had over 162,000 active members and the College had 3,906 active members participating in the scheme. The total pension cost for the college was £30.8 million (2013:£27.7 million). The contribution rate payable by the college was 16% of pensionable salaries.

The next formal triennial actuarial valuation is due as at 31 March 2014.

## SAUL

The College participates in the Superannuation Arrangements of the University of London (SAUL), which is a centralised defined benefit scheme and is contracted-out of the Second State Pension for all eligible employees with the assets held in separate Trustee-administered funds.

The College has adopted FRS 17 for accounting for pension costs. It is not possible to identify the College's share of the underlying assets and liabilities of SAUL. Therefore contributions are accounted for as if SAUL were a defined contribution scheme and pension costs are based on the amounts actually paid (i.e. cash amounts) in accordance with paragraphs 8–12 of FRS 17. SAUL is subject to triennial valuations by professionally qualified and independent actuaries. The last available valuation was carried out as at 31 March 2011 using the projected unit credit method in which the actuarial liability makes allowance for projected earnings. As a whole, the market value of the scheme's assets was £1,506 million representing 95% of the liability for benefits after allowing for expected future increases in salaries.

Based on the strength of the Employer covenant and the Trustee's long-term investment strategy, the Trustee and the Employers agreed to maintain employer and member contributions at 13% of salaries and 6% of salaries respectively following the valuation. The above rates will be reviewed when the results of the next formal valuation (as at 31 March 2014) are known.

A comparison of SAUL's assets and liabilities calculated using assumptions consistent with FRS 17 revealed SAUL to be in deficit at the last formal valuation date (31 March 2011). As part of this valuation, the Trustee and Employer have agreed that no additional contributions will be required to eliminate the current shortfall.

The more material changes (the introduction of a Career Average Revalued Earnings, or CARE, benefit structure) to SAUL's benefit structure will apply from 1 July 2012. As a consequence, the cost of benefit accrual is expected to fall as existing final salary members are replaced by new members joining the CARE structure. This will allow an increasing proportion of the expected asset return to be used to eliminate the funding shortfall. Based on conditions as at 31 March

2011, the shortfall is expected to be eliminated by 31 March 2021, which is 10 years from the validation date.

## NHS

Staff who have pension rights in the NHS Pension Scheme, on taking up a post within the College, may remain in membership of that scheme which is the nationally administered scheme for the National Health Service. The NHS Pension Scheme is an unfunded, defined benefit scheme that covers NHS employers, General Practices and other bodies, allowed under the direction of the Secretary of State, in England and Wales. As a consequence it is not possible for the College to identify its share of the underlying scheme. Therefore, the Scheme is accounted for as if it was a defined contribution scheme in accordance with FRS 17.

The Scheme is subject to a full valuation every four years. A valuation of the scheme liability is carried out annually by the scheme actuary as at the end of the reporting period. Actuarial assessments are undertaken in intervening years between formal valuations using updated membership data and are accepted as providing suitably robust figures for financial reporting purposes. The valuation of the scheme liability as at 31 March 2014, is based on the valuation data as at 31 March 2013, updated to 31 March 2014 with summary global member and accounting data. The last published actuarial valuation undertaken for the NHS Pension Scheme was completed for the year ending 31 March 2004. Consequently, a formal actuarial valuation would have been due for the year ending 31 March 2008. However, formal actuarial valuations for unfunded public service schemes were suspended by HM Treasury on value for money grounds while consideration is given to recent changes to public service pensions, and while future scheme terms are developed as part of the reforms to public service pension provision due in 2015.

The next formal valuation to be used for funding purposes will be carried out as at March 2012 and will be used to inform the contribution rates to be used from 1 April 2015. These accounts can be viewed on the NHS Business Services Authority website.

The main features of the most recent valuations of the principal schemes, under a FRS 17 basis, are as follows:

Latest actuarial valuations

### Assumptions

#### USS scheme

	31 Mar 2011
Valuation rate of return	6.1%
Salary scale increases per annum	4.4%
Pension increases per annum	3.4%
Life expectancy:	
Males (females) currently aged 65	23.7 yrs (25.6 yrs)
Males (females) currently aged 45	25.5 yrs (27.6 yrs)

#### SAUL scheme

	31 Mar 2011
Investment return on liabilities:	
Before retirement	6.8%
After retirement	4.7%
Salary scale increases per annum	3.75% till 31 March 2014, 4.5% thereafter
Pension increases per annum	2.80%

### FPS defined benefit scheme

The Federated Pension Scheme 1634 (FPS) is the scheme St Mary's Hospital Medical School operated for non-academic staff prior to 1 August 1988, when it was closed to new entrants. Two thirds of the membership elected to transfer into SAUL at that time and there are now no contributing members. A full actuarial valuation was carried out as at 31 March 2010 and has been updated to 31 July 2014 by a qualified independent actuary.

The main assumptions used for the purposes of FRS 17 are (in nominal terms):

Assumptions	2014	2013
Price inflation per annum	3.20%	3.30%
Salary inflation per annum	N/A	N/A
Rate of increase to pensions in payment at the 5% LPI rate	2.20%	2.50%
Rate used to discount scheme liabilities	4.10%	4.30%
RPI	3.20%	3.30%
Post retirement mortality assumption	90% of S1PxA (b=yob) PNxAoo(b=yob)lc	

### The assets in the scheme and the expected rates of return

	Rate of return		Market Value £m	
	2014	2013	2014	2013
Equities	6.75%	6.90%	1.6	1.6
Gilts	3.25%	3.40%	1.0	0.9
Corporate bonds	4.00%	4.20%	3.9	3.9
Insured annuity contracts	4.10%	4.30%	0.1	0.1
Cash	0.50%	0.50%	-	0.1
<b>Total fair value of assets</b>			<b>6.6</b>	<b>6.6</b>

### Reconciliation of the present value of scheme liabilities and fair value of assets to the asset recognised in the Balance Sheet

	2014 £m	2013 £m
Fair value of assets	6.6	6.6
Value of liabilities	(4.2)	(4.8)
Funded status	2.4	1.8
Unrecognised pension asset	2.4	1.8

### The amounts to be included as other finance income

	2014 £m	2013 £m
Expected return on scheme assets	0.2	0.2
Interest on scheme liabilities	(0.2)	(0.2)
<b>Net finance return</b>	<b>-</b>	<b>-</b>

### Changes in the present value of the defined benefit obligation

	2014 £m	2013 £m
Opening defined benefit obligation	(4.8)	(4.8)
Interest cost on obligation	(0.2)	(0.2)
Actuarial gain/(loss) on obligation	0.6	(0.1)
Benefits paid	0.2	0.3
<b>Closing defined benefit obligation</b>	<b>(4.2)</b>	<b>(4.8)</b>



# Notes to the accounts

Changes in the present value of scheme assets	2014 £m	2013 £m
Opening fair value of assets	6.6	6.5
Expected return	0.2	0.1
Actuarial gain	–	0.2
Member contributions	–	–
Benefits paid	(0.2)	(0.2)
<b>Closing fair value of scheme assets</b>	<b>6.6</b>	<b>6.6</b>

Total amounts recognised in the Statement of total recognised gains and losses (STRGL)	2014 £m	2014 £m	2013 £m	2013 £m
Pension scheme asset at start of year		–		–
Actuarial gain / (loss) on assumptions	0.2		(0.1)	
Actuarial gain on experience	0.4		–	
Actuarial gain on assets	–		0.2	
Surplus restriction	(0.6)		(0.1)	
Effect of restriction on expected return	–		–	
STRGL losses		–		–
<b>Pension scheme asset at end of year</b>		<b>–</b>		<b>–</b>

Actual return on scheme assets	2013 £m	2012 £m
Expected return on scheme assets	0.2	0.2
Actual return on scheme assets	0.2	0.4
<b>Actual less expected return on scheme assets</b>	<b>–</b>	<b>0.2</b>

Amounts for the current and previous four periods	2014 £m	2013 £m	2012 £m	2011 £m	2010 £m
Fair value of scheme assets	6.6	6.6	6.5	6.1	5.8
Value of liabilities (funded obligation)	(4.2)	(4.8)	(4.8)	(4.5)	(4.5)
<b>Surplus</b>	<b>2.4</b>	<b>1.8</b>	<b>1.7</b>	<b>1.6</b>	<b>1.3</b>
Experience gain on liabilities	0.4	–	–	0.1	–
Experience gain on assets	–	0.2	0.4	0.2	0.4

The pension costs for the College and its subsidiaries under SSAP 24 were:	2014 £m	2013 £m
Contributions to USS	30.8	27.6
Contributions to SAUL	8.0	7.1
Contributions to NHS	4.3	4.4
Contributions to defined contribution pension schemes	0.1	0.1
	<b>43.2</b>	<b>39.2</b>

## Notes to the accounts

### 32. Linked charities

The College has no linked charities with income of £100,000 and above to disclose. Aggregate figures for linked charities with income below this threshold are disclosed below.

<b>Funds where individual income for the year was under £100,000</b>	<b>Opening reserves £000</b>	<b>Income and donations received £000</b>	<b>Capital growth/ diminution £000</b>	<b>Expenditure and outgoing resources £000</b>	<b>Closing reserves £000</b>
Prize Funds (2 funds)	320.4	11.1	(7.9)	(2.6)	<b>321.0</b>
Research support (2 funds)	1,910.2	70.5	(51.9)	(2.8)	<b>1,926.0</b>
Student support (1 fund)	2,950.4	100.4	(72.4)	(306.5)	<b>2,671.9</b>
<b>Total</b>	<b>5,181.0</b>	<b>182.0</b>	<b>(132.2)</b>	<b>(311.9)</b>	<b>4,918.9</b>

Principal photography: Imperial College London

Additional photography:

p14 STFC/Imperial College London, Professor Sir Tejinder (Jim) Virdee

p17 Sandro Von Matter, green-headed tanager

p21 Nanyang Technological University, white coat ceremony

p26 Fergus Burnett, The Brevan Howard Centre for Financial Analysis

p28 Berman Guedes Stretton, h-bar

p29 Berkeley First, One Victoria Road

p29 Benjamin Lester, Heston sports ground



