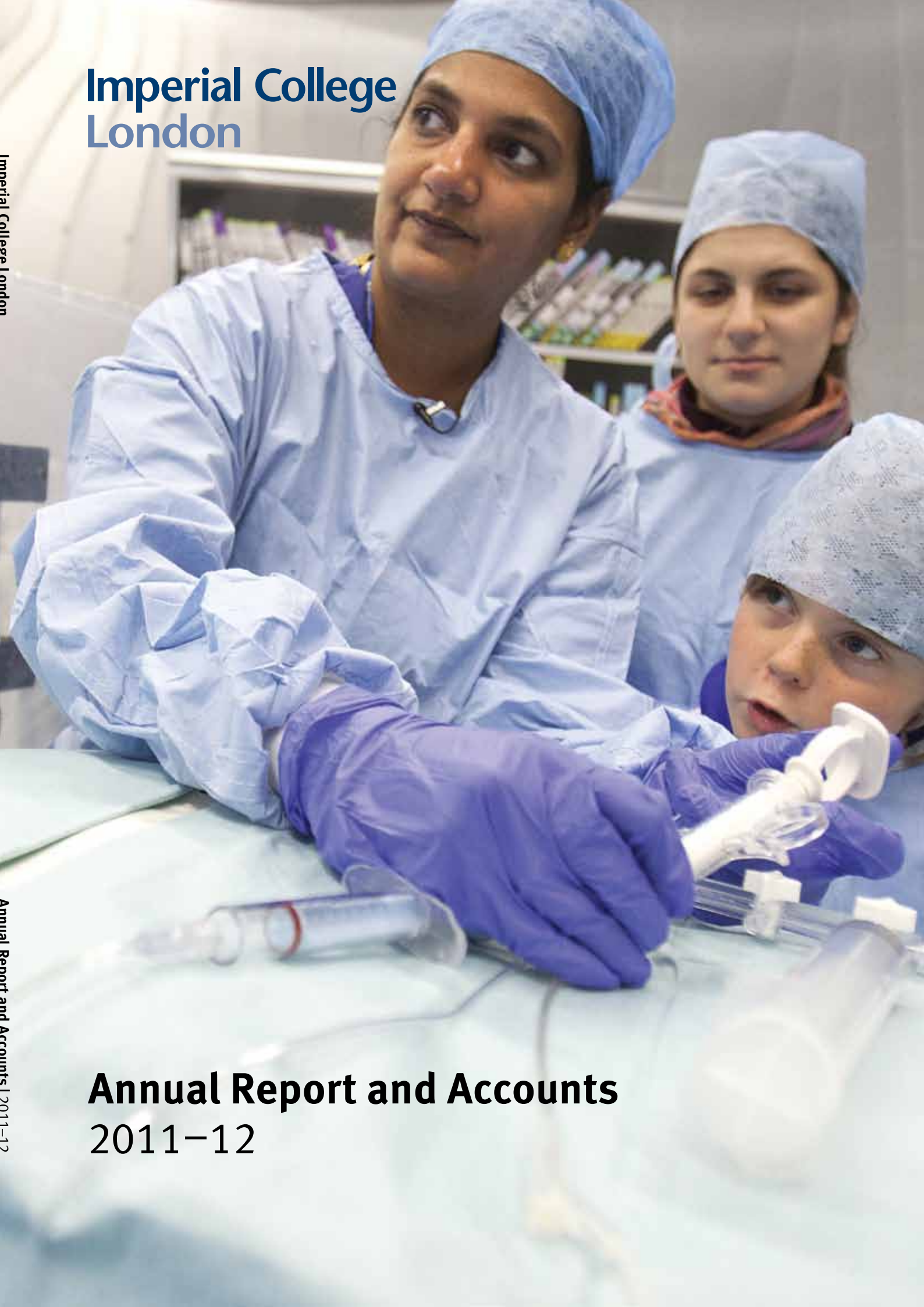


**Imperial College  
London**

Imperial College London

Annual Report and Accounts | 2011-12

**Annual Report and Accounts  
2011-12**



## OUR MISSION

Imperial College 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.

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### On the cover:

*Dr Sujatha Kesavan from the Department of Surgery and Cancer in the Faculty of Medicine helps a visiting child try his hand at performing a mock heart transplant operation in the Pop-up Surgery during the first Imperial Festival in May 2012.*

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# IMPERIAL FESTIVAL



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# Imperial at a glance

8th

Imperial's league table position in the world in the *THE World University Rankings*

8.7%

Amount by which the College's income increased during 2011–12

£28m

Philanthropic giving to the College during 2011–12

£112m

Government funding won for translational biomedical research

£314m

Imperial's 2011–12 income from research grants and contracts

15,571

Total number of students 2011–12

# President & Rector's foreword

4



Wherever in the world you are reading this, chances are that your attention was drawn to the United Kingdom at some point during the summer of 2012, when London played host to a truly spectacular celebration of sport and culture during the Olympic and Paralympic Games. It was impossible not to be moved by the spirit, determination and achievements of the athletes. As I look back on Imperial's own performance over the past year, I see a College that is well-trained, highly motivated and athletic in its readiness to compete amongst the world's best.

## Ranked among the elite

Those outside the College continue to recognise our achievements. We have maintained our position of eighth in the *Times Higher Education World University Rankings*, one of only four UK institutions to be included in the Top 20. We cannot rest on our laurels but we can be proud that we are firmly embedded among the world's leading universities, unshaken by increasing competition from around the world, where massive investment in higher education and research is paying dividends.

## Efficient and tightly managed

2012 saw the implementation of significant changes to the way universities are financed as the government began to draw down its support. Naturally there has been sector-wide concern over the effects of this decision, and the impact on raising the cap on tuition fees to £9,000 – and some institutions are consolidating their activities. At Imperial, however, our tight financial management and efficiency mean we have been able to drive forward a number of developments, both at home and abroad. The report on page 7 from our Chief Financial Officer, Muir Sanderson, shows the College's finances to be in rude health.

## Imperial is one of the UK's great exports

Imperial continues to make an impact in all corners of the globe. In Singapore in May, the ground-breaking ceremony of the Lee Kong Chian School of Medicine – the partnership between Imperial and Nanyang Technological University, Singapore – was held, marking the start of work to develop an inspiring, cutting-edge learning environment for the School's medical students. The first cohort will be admitted in August 2013 and will be immersed in the innovative curriculum designed by a sizeable team from the Faculty of Medicine.

In the United Arab Emirates, further endorsement for the College's approach to healthcare research and practice was given, with the opening of the second Imperial College London Diabetes Centre. Tens of thousands of patients

have already benefited from the treatments offered by Imperial's first such centre in Abu Dhabi, and the expansion will enable further access to this specialised healthcare, and allow Imperial researchers to understand more about diabetes.

With such a range of international opportunities open to Imperial, it is a significant challenge to identify those that would most support our activities. Nothing beats spending face-time with would-be partners and supporters, and this year visits to China, Hong Kong, and the United States have enabled productive conversations with alumni, government, universities and industry.

## An outstanding education

We are committed to offering an outstanding student experience, and for years to come I am confident that students will point to the vibrancy of London's image during the Olympics as a reason for choosing to study here. But while the city offers an amazing backdrop, students will not be sustained by that alone. Nourishment must also come from the care and support of teachers, high quality educational materials, outstanding facilities and the many other factors that shape the experiences of students.

The results of the 2012 National Student Survey (NSS), released in September, indicate the progress that continues to be made in enhancing what we offer to students at Imperial. Compared to the 2011 results the College achieved a higher or equal percentage satisfaction across all categories. Staff at the College have committed themselves to improving the experience that students expect of us, and they have been ably supported in their efforts by the Imperial College Union whose sterling work has boosted student engagement in the NSS to the highest level of any institution in England and Wales.

## Growth and development of our facilities

A key theme of our strategy is that we must continue to invest in our facilities to remain at the cutting edge.

In May I was delighted to welcome the Chancellor of the Exchequer George Osborne to the formal opening of the Imperial Centre for Translational and Experimental Medicine (ICTEM). This £66 million flagship facility on our Hammersmith Campus, alongside Hammersmith Hospital, will expand and accelerate the translation of scientific discoveries into new ways of preventing, diagnosing and treating diseases. It combines laboratory space for up to 450 scientists with a dedicated facility for evaluating and developing new medical treatments through clinical trials. The Chancellor caught the mood when he said that the future of life sciences is academic research, clinical practice and industrial application coming together, and Imperial is leading the way.

Just 500 metres away from ICTEM on our Hammersmith Campus is the site which marks a significant expansion of the College's activities. Approval for our masterplan for the new Imperial West site in Hammersmith and Fulham was granted in July, giving the go-ahead for a major regeneration project in west London. The new mixed-use campus will combine world class teaching and research facilities with our renowned technology transfer activities. At its heart will be a research and translation hub, providing invaluable space for the next generation of entrepreneurs to grow new businesses. The first phase, providing accommodation for over 600 postgraduates, opened in September, and the coming year will see us refine the vision for this twenty-first century technology campus, unlike anything that currently exists in the UK higher education sector.

## Translation from the lab bench to the bedside and beyond

Whilst Imperial West will enhance our translation activities in the future, in the present we continue to drive research results into benefits for society as a whole.

June saw the launch of Imperial College Health Partners, a company that aims to improve the health and care of the population of 1.9 million people living in north west London. This limited company will bring together healthcare providers including acute and specialist hospital, mental health and community care services, in partnership with the College, to drive practical improvements to the quality of healthcare delivery. By coordinating the adoption of innovation, the partnership aims to bring benefits to the health of the local population and, through the dissemination of best practice, extend these more widely within the UK and beyond.

### A unique atmosphere for influence and engagement

As President and Rector, I've been very lucky to see first-hand how good so many of our staff are at engaging people in their research. Therefore, I was delighted that so many of our stakeholders, alumni and the general public were able to share in this at the first Imperial Festival, which saw more than 7,000 people visit our South Kensington campus over three days for hands-on scientific demonstrations and imaginative presentations of research. This showcase will become an annual event to celebrate the very best of what we do and engage our key audiences.

Also present were members of the Court, which has been re-established following the 2010 governance review, and draws its membership from key College stakeholders, including business, research sponsors, NHS bodies and supporters, as well as elected staff. More than 700 alumni were also in attendance for their annual reunion, which was bigger than ever before. Demonstrating to all of these groups the value and impact of our efforts in research, education and translation will extend and strengthen Imperial's influence.

### Recognising the importance of our alumni

Imperial's alumni are the best ambassadors for what we do, and wherever I travel in the world, I am struck by the affection they still feel for the College. Plans are underway to establish an alumni visitor centre on the South Kensington Campus to act as a focal point for all alumni activity, and it is important that we have a dedicated facility to welcome them back to the College. One obvious impact of the reduction in state funding is that philanthropic activity involving all of our key stakeholder groups has never been more important. This has been another successful year for embedding our long-term strategic advancement plan, and the College secured funds of £28 million during August 2011–July 2012.

### A new leadership model for a global player

In recognition of our increasing external-facing and international activities, in April, Council approved the proposal to separate the current responsibilities of the Rector into a Provost and President model – similar in approach to that taken by many of our US counterparts. The President & Rector

will have oversight of all functions at Imperial, but much of the role will give emphasis to external affairs here in the UK and overseas. Meanwhile, the Provost will be responsible for advancing and delivering the College's core academic mission – education, research and translation.

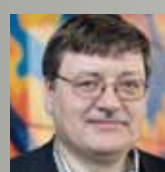
### Building the top team to drive the College forward

This year has seen a number of changes to our Management Board. After more than 25 years service to Imperial, Dr Rodney Eastwood retired as College Secretary. Professor David Begg retired as Principal of the Business School, having firmly embedded the School's activities within the wider College. By the time you read this, we will also have said goodbye to Professor Sir Anthony Newman Taylor, Principal, Faculty of Medicine, and Professor Julia Buckingham, Pro Rector (Education and Academic Affairs). They have all contributed immensely to making Imperial what it is today.

Joining Management Board we welcome: John Neilson, College Secretary and Registrar, from an extensive career in government, and Professor Dot Griffiths, Acting Principal of Imperial College Business School. Professor Dermot Kelleher joined as the incoming Principal of the Faculty of Medicine, while Simon Harding-Roots is our new Chief Operations Officer.

2012 will be forever remembered for the incredible feats on the track, inside the stadiums and for the spirit it brought to the capital. What follows in this *Annual Report and Accounts* for 2011–12 is a small selection of the outstanding achievements of staff and students that, for me, engender that same sense of pride witnessed in one unforgettable summer.

Sir Keith O'Nions,  
President & Rector



#### MANAGEMENT BOARD 2011–12 (left to right, top to bottom)

- » Professor Sir Keith O'Nions, President & Rector (Chairman)
- » Professor Stephen Richardson, Deputy Rector
- » Mr Muir Sanderson, Chief Financial Officer (from 1 November 2011)
- » Dr Rodney Eastwood, College Secretary (until 31 March 2012)
- » Mr John Neilson, College Secretary and Registrar (from 1 May 2012)
- » Professor Jeff Magee, Principal, Faculty of Engineering
- » Professor Maggie Dallman, Principal, Faculty of Natural Sciences
- » Professor Sir Anthony Newman Taylor, Principal, Faculty of Medicine
- » Professor David Begg, Principal, Imperial College Business School (until 17 February 2012)
- » Professor Dorothy Griffiths, Acting Principal, Imperial College Business School (from 18 February 2012)
- » Professor Donal Bradley, Pro Rector (Research)
- » Professor Julia Buckingham, Pro Rector (Education and Academic Affairs)
- » Mr Edward Astle, Pro Rector (Enterprise)
- » Dr Simon Buckle, Pro Rector (International)
- » Mr Simon Harding-Roots, Chief Operations Officer
- » Professor Dermot Kelleher, Principal Designate, Faculty of Medicine

# Five-year summary of key statistics

	2012 £m	2011 £m	2010 £m	2009 £m	2008 £m
<b>INCOME AND EXPENDITURE</b>					
Funding Council grants	172	169	172	178	165
Academic fees and support grants	163	138	121	109	96
Research grants and contracts	314	299	297	287	256
Other operating income	108	94	89	85	72
Endowment and investment income	8	5	15	13	14
Less: share of income from joint ventures	–	(1)	(1)	–	–
<b>Net income</b>	<b>765</b>	<b>704</b>	<b>693</b>	<b>672</b>	<b>603</b>
Total expenditure	702	660	651	658	596
<b>Surplus on ordinary activities</b>	<b>63</b>	<b>44</b>	<b>42</b>	<b>14</b>	<b>7</b>
Share of results in joint ventures and associates	(3)	(2)	–	–	–
Minority interest	–	1	(1)	2	2
<b>Surplus before exceptional items</b>	<b>60</b>	<b>43</b>	<b>41</b>	<b>16</b>	<b>9</b>
<b>Surplus for the year retained within general reserves</b>	<b>61</b>	<b>95</b>	<b>41</b>	<b>17</b>	<b>27</b>
<b>BALANCE SHEET</b>					
Fixed assets	1,030	920	869	786	713
Endowment asset investments	79	76	59	56	56
Net current assets/(liabilities)	64	39	(3)	(4)	47
Long term creditors and provisions	(265)	(192)	(180)	(191)	(187)
<b>Net assets</b>	<b>908</b>	<b>843</b>	<b>745</b>	<b>647</b>	<b>629</b>
<b>CAPITAL EXPENDITURE (IN-YEAR CAPITAL EXPENDITURE ADDITIONS)</b>					
Externally funded	30	44	77	34	47
Internally funded	47	33	38	81	81
Finance leases	75	–	–	–	–
<b>Total in-year capital expenditure additions</b>	<b>152</b>	<b>77</b>	<b>115</b>	<b>115</b>	<b>128</b>
<b>HEFCE capital grant received</b>	<b>14</b>	<b>18</b>	<b>42</b>	<b>42</b>	<b>46</b>
<b>LIQUIDITY</b>					
Cash and cash equivalent	331	261	189	201	217
Bank loans	(160)	(166)	(172)	(173)	(173)
Finance lease	(75)	–	–	–	–
<b>Net cash</b>	<b>96</b>	<b>95</b>	<b>17</b>	<b>28</b>	<b>44</b>
<b>STUDENT NUMBERS</b>					
Full-time equivalent students – undergraduate	9,080	8,885	8,608	8,554	8,419
Full-time equivalent students – postgraduate	5,262	5,079	4,865	4,465	3,900
Visiting students / other	1,229	1,251	1,094	994	1,036
<b>Total</b>	<b>15,571</b>	<b>15,215</b>	<b>14,567</b>	<b>14,013</b>	<b>13,355</b>
Average number of full-time equivalent staff	6,648	6,736	6,613	6,654	6,488
Staff costs as a percentage of expenditure	53.3%	55.3%	55.2%	54.6%	54.5%



# Financial review



Mr Muir Sanderson, Chief Financial Officer

## KEY HIGHLIGHTS

This year's accounts find Imperial in a strong financial position but with still more to do. The growth in research income and student numbers, as well as the global league tables, show that we are cementing our position as a world-leading academic institution. At the same time we are relying ever less on government support as demonstrated by the flat Funding Council grants and reducing government backed capital expenditure. Our financial strategy aims to support this continued excellence and increasing self-reliance. Our intention is to continue delivering, and hopefully exceeding, the healthy surpluses from ordinary activities of recent years. These surpluses are essential to maintaining our pre-eminent position and will allow us to invest significantly in the student experience and new research facilities in the coming years. This strategy is self-reinforcing; high level of financial performance is only possible if students, academics and research funders all recognise Imperial as the best place to study, work and invest.

It is also pleasing to note the steady growth of the Endowment (formerly College Fund) under the prudent and far-sighted leadership of the Endowment Board. The Endowment has a critical role in the future, helping us attract and support the most talented undergraduates and postgraduates, irrespective of their background. We intend to boost this growth through the steady, consistent and long-term engagement of the College's supporters and our widely spread and highly successful alumni base, whilst continuing the careful investment management strategy. This will require time and effort, both of which we are committed to providing.

The key highlights for the year are:

- Income grew by 8.7% over 2010–11 to £765 million.
- The surplus on ordinary activities was £63 million, compared to £44 million in 2010–11, representing a surplus to turnover ratio of 8.3%.
- The retained surplus for the year was £61 million, compared to £95 million last year.
- The College has maintained a healthy net cash position of £96 million.
- £18 million of cash was raised on entering into a 45-year sale and finance leaseback over Griffon Studios, a newly constructed 566 postgraduate student accommodation in Battersea. The transaction resulted in the recognition of a £75 million finance lease asset and corresponding liability on the balance sheet.
- The balance sheet remains strong despite the introduction of this finance lease, which increases the long term debt as a percentage of net assets during the year from 20% to 26%.

## INCOME

Total College income for the year was £765 million, which has increased by 8.7% from £704 million in 2010–11.

Income analysis	2012 £m	2011 £m	Change %
Funding Council grants	172.4	168.6	2.3
Academic fees and support grants			
Home and EU students (full-time)	34.8	32.9	5.8
Overseas students	96.3	88.2	9.2
Other	32.0	16.8	90.5
	163.1	137.9	18.3
Research income			
UK research councils	102.4	102.7	-0.3
UK charities	66.5	68.7	-3.2
UK industry	18.9	18.2	3.8
European Union and overseas	74.5	65.2	14.3
Other	51.6	44.4	16.2
	313.9	299.2	4.9
Other income	108.1	93.7	15.4
Endowment and investment income	8.1	5.6	44.6
Less: share of income from joint venture	(0.4)	(0.8)	-50.0
Total income	765.2	704.2	8.7

The main components of income are:

- Funding Council grants, primarily from the Higher Education Funding Council for England (HEFCE), are the second highest source of income for College and increased by £4 million to £172 million for the year. This increase was mainly as a result of the in-year completion of capital projects part funded by HEFCE capital grants (specifically the part refurbishment of the Mechanical Engineering Building and the construction of the Imperial Centre for Translational and Experimental Medicine) triggering the release of additional deferred capital grant to the income line. Capital funding is deferred on the balance sheet and released to income over the lifetime of the underlying capital project to offset the associated depreciation charge. Capital funding, in cash terms, received from HEFCE has been declining over the last five years from £46 million in 2008 to £14 million this year.

Other key changes in funding streams are:

- Total recurrent teaching grant has fallen by £2.0 million (3.6%) due to sector-wide pro-rata cuts in the core teaching grant allocation.
- Total recurrent research grant has increased by £2.3 million (2.4%) due to the College increasing its sector share of eligible research income from charities and industry, and postgraduate research students.
- Academic fees and support grants increased by 18.3% to £163 million which now represents 21.3% of the total income of the College. This reflects higher student numbers, which increased by 2.3% to 15,571, the annual fee increases and a change in the mix of student numbers on courses attended. Fees from overseas students increased by £8.1 million to £96.3 million.
- Research income increased by 4.9% to £314 million, and continues to be the largest source of income for the College. Most of the income was matched by directly related expenditure, and the contributions towards overhead costs at £55 million remain unchanged for the third year in a row reflecting the increasing pressure on overhead recovery rates. The level of funding from UK Research Councils was broadly unchanged, whilst there were increases in income from UK health authorities and also from overseas sources in particular the European Union as the College, in line with its strategy, seeks to diversify further its sources of income.
- Other operating income rose by 15% primarily due to increases in the income from residences, catering and conferences.
- Going forward, the College expects further continued pressure on public funding which will only be partially offset by the increase in tuition fees to the £9,000 maximum from 2012–13. The College will continue its strategy of diversifying its sources of income.

### EXPENDITURE

Total expenditure increased by over 6%. Staff costs are the largest item and have increased by 2.4% in the year to £374 million. As a percentage of total expenditure this remains broadly flat at 53.3%, although the full time equivalent staff numbers have fallen 1.3% in year to 6,648. There have been small increases in the number of full-time equivalent staff in both the Academic and Research and Professional services categories and a 21.8% reduction in Operational services full time equivalent staff to 424. There was a charge for restructuring costs of £1.1 million during the year.

The principal pension schemes for the College are the Universities Superannuation Scheme (USS) and the Superannuation Arrangements of the University of London scheme (SAUL). Both are large multi-employer schemes and it is not possible to identify the College's share of the underlying assets and liabilities and so these are not reflected in the College's balance sheet. The latest triennial valuation on each scheme was in March 2011 and both were underfunded, USS by 8% and SAUL by 5%. During the year both schemes agreed a number of benefit reforms, including moving from final salary related benefits to career average benefits for new joiners and, for the USS, an increase of 1.15% to 7.5% for existing USS member employee contributions. These reforms coupled with improved investment returns are expected to bring the schemes back into balance.

Other operating expenses increased by £23 million to £266 million. Within this, research grants and contracts increased by £12 million which directly relates to the increase in research income. There was increased expenditure in a number of areas including general expenditure in academic departments and facilities and maintenance of the College estate. The one off charge of £20.1 million incurred in 2010–11 for the increase in the decommissioning provision for the College's specialist engineering facility was not repeated. The College continues to monitor support costs in line with the ongoing strategy to maximise efficiency and control the administrative cost base.

Depreciation has increased from £46 million in 2010–11 to £52 million this year, reflecting the ongoing capital investment by College. Interest and other finance costs increased by £3.4 million to £9.7 million reflecting the additional need to service the College's new finance lease.

## SEGMENTAL ANALYSIS

The consolidated position comprises the two main segments within the College: the University (being the core academic function and associated activities) and the Endowment – previously known as the College Fund – representing the pool of endowment and investment assets managed with an investment focus to support the long-term academic mission.

Previously, the College had a third segment, Imperial Innovations Group plc ('Innovations') – an intellectual property, incubation and

investment undertaking developed to provide commercialisation and business support services to the College and external organisations. This was treated as a separate segment whilst Innovations was a subsidiary but following a rights issue in January 2011, which the College did not take part in, Innovations was equity accounted for as an associate and no longer considered a separate segment; its results being incorporated within the University segment. The relative performance of each segment, as included under the accounting treatments employed in the consolidated financial statements, is outlined below.

Segmental information	University (education and research) 2012 £m	Endowment 2012 £m	Total 2012 £m	University (education and research) 2011 £m	Endowment 2011 £m	Imperial Innovations Group plc 2011 £m	Total 2011 £m
Surplus before exceptional items	53.4	6.9	60.3	42.8	4.1	(3.7)	43.2
Total fixed assets	865.9	164.5	1,030.4	771.4	89.9	58.7	920.0
<b>Net cash</b>							
Cash in hand	111.9	23.9	135.8	120.3	7.9	–	128.2
Overdrafts	–	–	–	–	–	–	–
Short term investments	165.0	–	165.0	115.0	–	–	115.0
Cash in endowment assets	–	29.8	29.8	0.1	17.2	–	17.3
Total cash and short term investments	276.9	53.7	330.6	235.4	25.1	–	260.5
Borrowings	(126.0)	(33.7)	(159.7)	(136.8)	(28.7)	–	(165.5)
Finance lease	–	(74.6)	(74.6)	–	–	–	–
Total net cash /(debt)	150.9	(54.6)	96.3	98.6	(3.6)	–	95.0

The University is the largest segment, comprising 88.6% of operating surplus.

The Endowment has a key role in the College's long-term strategy to secure its financial stability and independence by maximising the return from investment assets and providing a regular source of unfettered income to support the College's objectives. During the year it was managed at a consolidated level; its constituent parts being the Unitised Scheme, the Special Circumstances Portfolio (comprising the Non-Core Property Portfolio, Griffon Studios and other investments) and the investment in Innovations.

Following its growth over recent years, the Unitised Scheme, representing the pool of restricted actual endowments together with certain unrestricted funds, all held as essentially liquid assets, grew by 12.3% during the year to £112 million. This included £3.5 million in income donations and £2.0 million in new endowments, as well as £8.9 million of appreciation driven by the underlying investment return of 6.4% achieved against challenging market conditions. In addition the Unitised Scheme made available £4.3 million in distributions in the year to be expended in line with the purposes of the participating Scheme funds. The Unitised Scheme is managed against a rolling five-year investment return target of RPI+4% per annum, and the total return achieved over the reported year, including interest on the cash element, was 5.0%.

During the year the Special Circumstances Portfolio realised its investment in the Griffon Studios postgraduate accommodation at Battersea by entering into a 45-year sale and leaseback transaction which resulted in the Endowment's assets and liabilities increasing by £75 million to reflect the resulting finance lease asset and liability.

The Endowment has been restructured after the end of the year to provide a greater management focus on the three distinct portfolios within the fund (the Unitised Scheme, Non-Core Property and Innovations). This includes the transfer of operational responsibility over the finance lease from the Endowment to the College.

The overall market value of the assets held in the Endowment at the end of July 2012 was £306 million, although these consolidated accounts incorporate the Endowment assets at a book value of £155 million.

## EXCEPTIONAL ITEMS

There is one exceptional item in this year's accounts being a gain of £0.5 million resulting from the sale of holdings in certain investments.

## CAPITAL EXPENDITURE

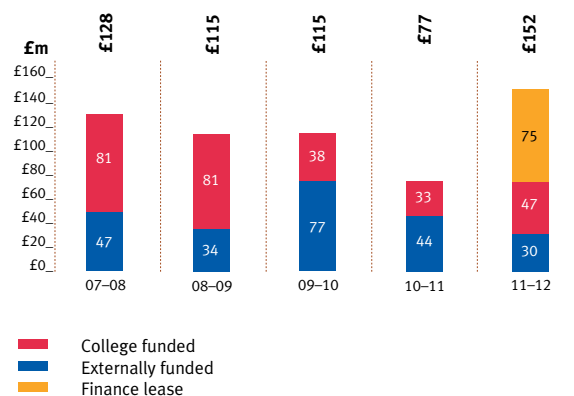
At first sight the level of capital expenditure, as measured by the fixed asset additions recognised in year, has increased in 2011–12 over prior years to £152 million. However this includes the addition of the new 45-year finance lease over Griffon Studios, totalling £75 million. If this finance lease is excluded, capital expenditure is in line with the previous year. The level of external funding for these capital additions has reduced from £44 million in the prior year to £30 million in this, which reflects the move towards a lower level of ongoing capital support from the government in the years to come. This is further supported by the absolute decrease in capital funding from HEFCE from £46 million in 2008 to £14 million in 2012. In the future the College will need to fund a greater proportion of the capital expenditure itself than has been the case in the past.

Of the £77 million capital expenditure incurred during the year, significant items include:

- £20 million related to the acquisition of Orient House postgraduate accommodation block from Unite. This, coupled with the sale and leaseback over the Griffon Studios postgraduate accommodation in Battersea and the investment in new accommodation at Wood Lane Studios in White City, has increased the College's provision of postgraduate beds to over 1,500. These are being offered to the market under the GradPad brand and demonstrates the College's commitment to providing high-quality, affordable accommodation to students.
- £8 million was spent acquiring additional land and leasehold buildings at the Imperial West site.

The College will continue the ongoing refurbishment of buildings across the estate, a sizeable expense in its own right, and is also working on the future development plans for the Imperial West site.

## Capital expenditure



## BALANCE SHEET

At the year end net assets totalled £908 million, an increase of £65 million over the prior year. Tangible assets grew by £98 million to £928 million due to additions from the continued capital investment programme and the new finance lease, for £75 million, taken out on the postgraduate halls of residence in Battersea. Fixed asset investments increased to £99.6 million following the College investment in the Francis Crick Institute, an interdisciplinary biomedical research institute scheduled to be opened in 2015. Debtors of £128 million are broadly at the same level as 2011, although within this debtors due on research grants and contracts have increased whilst work in progress on these research grants and contracts has reduced. Creditors falling due within one year have increased by £31 million to £366 million, mainly due to higher levels of research payments received on account and increased accruals and deferred income. Creditors due after more than one year have risen by £73 million because of the new finance lease, totalling £75 million, taken out on the postgraduate halls of residence in Battersea.





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 2011	145.5	115.0	260.5
Cash from operations	121.6	–	121.6
Capital expenditure	(75.1)	–	(75.1)
Purchase/receipt of investments	(21.7)	–	(21.7)
Disposal of investments	25.8	–	25.8
Deferred capital grants	29.3	–	29.3
Returns on investments	5.5	–	5.5
Debt repayments and servicing	(15.3)	–	(15.3)
Sub total	70.1	–	70.1
Management of liquid resources	(50.0)	50.0	–
Net movements	20.1	50.0	70.1
At 31 July 2012	165.6	165.0	330.6

There has been an inflow in the year of £70 million, which is consistent with the prior year and leaves the College with cash and cash investments of reserves of £331 million at the year end. The cash inflow reflects the continued level of operating surplus, active working capital management by the College, and capital expenditure in the year. The College continues to have a small net interest charge which reflects the market conditions where interest earned on deposits continues at historically low levels. The College policy is to deposit cash with top-rated institutions for no more than 12 months.

- The ability to attract and retain the best students from the UK, Europe and around the world.
- The ongoing volatility in the investment markets given the increased importance to the College of the Endowment.
- The impact of any significant change in the exchange rates, mainly the US Dollar and Euro in relations to Sterling, in particular to relation to the impact on research grants.
- The impact of inflation, particularly as a number of income lines are not inflation linked.

**FUTURE FINANCIAL CHALLENGES / RISKS AND UNCERTAINTIES**

Although the College is in a very sound financial position there remain a number of financial risks and uncertainties on the horizon:

- The full extent and impact of government funding cuts, particularly from 2012 and beyond.
- Reductions in Research Councils funding, and in particular the impact of the ongoing squeeze on the contribution to overheads paid and reduced capital equipment funding.
- The costs of education and in particular research are not covered in full. Also different research funders make different contribution towards overheads and so the changing mix of research funders does have an impact on the level of contribution towards overheads.
- The potential increasing cost of pensions.
- The impact on the College, through our relationships, of government cuts in NHS funding.

**IN CONCLUSION**

The College's finances provide a strong platform to support the academic strategy. The annual surplus allows us to fund a greater proportion of our essential investment from our own sources. This investment will ensure that students, academics and research funders all recognise Imperial as the best place to study, work and invest. We look forward to a changing future with confidence.

Muir Sanderson  
Chief Financial Officer



*Professor Donal Bradley is Lee-Lucas Professor of Experimental Physics in the Department of Physics (Faculty of Natural Sciences), Director of the Centre for Plastic Electronics, and Pro Rector (Research)*

## NEW LEADERSHIP MODEL FOR IMPERIAL

In April 2012, new leadership arrangements at Imperial were announced, with the Rector becoming President & Rector and a first Provost being sought. The President & Rector will oversee all functions at the College but will lay emphasis on Imperial's external affairs in the UK and overseas, focusing on building relationships with alumni, supporters, governments and industry. The holder of the new post of Provost will be responsible for advancing and delivering the College's core academic mission of education, research and translation. These changes will enable Imperial to be imaginative and flexible, take advantage of opportunities, and overcome tough challenges in UK higher education resulting from the reduction in state funding and competition for the best students and staff from universities around the world.

## SENIOR LEADERSHIP CHANGES

### Pro Rector (Research)

Professor Donal Bradley (Physics) was appointed Pro Rector (Research) from 1 October 2011. A scientist who has spearheaded the development of plastic electronics research at the College, Professor Bradley (pictured left) is one of the most highly cited scientists in the fields of physics and materials science. In his new role, he is responsible for strategic research issues at the College, such as determining priorities for investment, and coordinating and developing external research relationships.

### Pro Rector (Education)

Professor Debra Humphris, a leading innovator in higher education and healthcare, was announced as new Pro Rector (Education) in July 2012. Previously Pro Vice-Chancellor (Education and Student Experience) and Professor of Health Care Development at the University of Southampton, Professor Humphris took up her post in October 2012. As Pro Rector (Education) Professor Humphris is responsible for the College's overall educational strategy, focusing on the quality of teaching and assessment, and the promotion of the most effective methods to enhance learning.

### Chief Financial Officer

Mr Muir Sanderson joined Imperial as its new Chief Financial Officer in November 2011. Responsible for defining and delivering the College's financial strategy, including investment management and fund development, Mr Sanderson previously spent 17 years at Booz & Company, a world-leading global management consultancy.

## College Secretary and Registrar

Mr John Neilson became College Secretary and Registrar in May 2012. He oversees the governance of the College, and has specific responsibility for core functions including the Registry, outreach and recruitment, health and safety, risk management, the nuclear reactor and internal audit. Before coming to Imperial, Mr Neilson was Director of Financial Management in the Ministry of Defence and Director Research Base in the Department for Business Innovation and Skills.

## Chief Operations Officer

Mr Simon Harding-Roots became new Chief Operations Officer in July 2012, responsible for providing and enhancing operational services in support of Imperial's academic mission. Reporting to the Chief Financial Officer, he leads the directors responsible for maintaining and developing the College's infrastructure – including its buildings and IT services, and the planning and delivery of capital projects – and its commercial services.

## TIMES HIGHER EDUCATION WORLD UNIVERSITY RANKINGS 2011–12

Imperial was ranked eighth, rising from ninth position last year and maintaining its rank of third in the UK, after Oxford and Cambridge (fourth and sixth in the world respectively). Thirty-two UK institutions reached the top 200 in the rankings announced in October 2011.

## COLLEGE FUND RENAMED

The College Fund has been renamed The Endowment to reflect its primary objective to build an enduring asset base and unfettered income flow for the long-term development of the College. Accordingly, the College Fund Board has been renamed The Endowment Board (see page 35 for its membership).

## NEW ONLINE FINANCIAL SUPPORT CALCULATOR

The College launched a new online financial support calculator in November 2011 to help prospective students gain better access to tailored information. Prospective students and their parents can input details about their financial circumstances and get information about potential support from both Imperial and government sources. The calculator was developed to help Home undergraduate students applying for 2012 entry, when increased tuition fees of £9,000 per year were introduced, alongside new financial support arrangements.

## NEW PUBLIC-PRIVATE IMAGING CENTRE

Imanova, a new state-of-the-art imaging centre was formally launched at a showcase event attended by representatives from the founding organisations and David Willetts MP, Minister for Universities and Science, in May 2012. Imanova is a pioneering public-private collaboration formed by the Medical Research Council, King's College London, UCL and Imperial. From a site established and previously run by the pharmaceutical company GlaxoSmithKline, Imanova aims to become an internationally renowned imaging centre and partner of choice for industry and academia needing world class imaging facilities. With both PET and MRI scanning in the same centre, Imanova is unique in the UK, allowing researchers to see not only the activity of a medicine in the body, but also its effect on the body systems being studied.

## PRESIDENT & RECTOR'S INTERNATIONAL TOURS

Overseas visits to both east and west continued to be a major focus for President & Rector, Sir Keith O'Nions, during 2012. In July, he visited Beijing, Shanghai and Hong Kong, meeting over 300 Imperial alumni, industry leaders, government representatives and university counterparts. In September, he toured the United States, taking in Boston, Houston and San Francisco.



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Amy Townsend, Placement and Internship Officer, discussing a student's options at the College Careers Fair. Imperial was awarded a Matrix Standard certificate in January 2012, which recognises the Careers Advisory Service for the guidance it offers students and alumni.



## RETIREMENTS AND OTHER DEPARTURES

### College Secretary

Dr Rodney Eastwood retired from the College in March 2012 after 25 years of service, including five as College Secretary. During his career Dr Eastwood helped Imperial through many important milestones, including achieving independence from the University of London, and the mergers with four London medical schools. He is now Rector's Envoy.

### Pro Rector (Education and Academic Affairs)

Professor Julia Buckingham, Pro Rector (Education and Academic Affairs) left Imperial in October 2012 to take up the role of Vice-Chancellor and Principal at Brunel University. Professor Buckingham, who was also Chairman of the College's Centre for Integrative Mammalian Physiology and Pharmacology, joined Charing Cross and Westminster Medical School in 1987 as Professor of Pharmacology. The medical school merged with Imperial 10 years later and she became a Pro Rector in 2007.

### Principal of the Business School

Professor David Begg retired in February 2012 after nine years as Principal of the Business School. During this time, the School's income doubled, it rose 45 places in the *Financial Times* rankings and it established a world class reputation in innovation and entrepreneurship. With a determination to bring the Business School into the heart of what Imperial does, he ensured close working with other faculties and aimed to bring the wisdom of business to all of the College's work. Professor Dorothy Griffiths, Deputy Principal of the Business School, took up appointment as Acting Principal and will lead the School until a new Principal is appointed.

### Principal of the Faculty of Medicine

Sir Anthony Newman Taylor stepped down as Faculty Principal in September 2012, having served two years in the post and two years as Deputy Principal. As Principal he presided over the launch of the Faculty's new research facility at Hammersmith Campus, the Imperial Centre for Translational and Experimental Medicine. He also oversaw preparations for the bid that brought in £112 million of funding for the National Institute for Health Research Biomedical Research Centre at Imperial College Healthcare NHS Trust and Imperial College London. He has been appointed to the Trust's board as a non-executive director and will also chair its Quality and Safety Committee.

## NEW APPOINTMENTS

### Faculty of Medicine Principal and Dean of the Lee Kong Chian School of Medicine

Professor Dermot Kelleher, one of Ireland's foremost medical leaders and a pioneer in the field of immune response and infectious disease, was announced as Principal of the Faculty of Medicine in January 2012. Professor Kelleher, pictured left, took up his position in October 2012 and combines this role with that of Dean of the Lee Kong Chian School of Medicine in Singapore, founded in 2010 as a partnership between Imperial and Nanyang Technological University, Singapore. Formerly Vice-Provost for Medical Affairs and Head of the School of Medicine at Trinity College Dublin, he has over 30 years' experience in research, teaching and medical leadership.

### Natural Sciences Deputy Principal

Professor Steven Rose, Head of Plasma Physics and Director of the Institute of Shock Physics, was appointed Deputy Principal of the Faculty of Natural Sciences from 1 October 2011, succeeding Professor Donal Bradley on his appointment as Pro Rector (Research) (see page 13).

### Faculty of Engineering Deputy Principals

Professors Neil Alford and Peter Cheung have been appointed Deputy Principals of the Faculty of Engineering, reporting to the Principal of the Faculty, Professor Jeff Magee. Professor Alford, who is Head of the Department of Materials, became Deputy Principal (Research), while Professor Cheung, who is Head of the Department of Electrical and Electronic Engineering, became Deputy Principal (Teaching).

### Business School Deputy Principal (Research and Business Engagement)

Professor David Gann was appointed Deputy Principal (Research and Business Engagement) of the Business School from 1 September 2011. Professor Gann will report to the new Principal of the Business School when appointed, and works closely with Professor Dorothy Griffiths, Deputy Principal and current Acting Principal.

## CAREERS ADVISORY SERVICE AWARDED

A Matrix Standard certificate, in recognition of the careers guidance offered to students and alumni by the Careers Advisory Service, was awarded to the College in January 2012. Imperial was praised for its varied programme of workshops and seminars, student drop-in sessions, extensive resources library and award-winning website. The Matrix Standard looked at eight different elements the service provided, from how aware people are of the service to the quality of the information available.



## TWO TICKS FOR DISABILITY

At a ceremony in April 2012 the College was awarded Two Ticks disability status by Jobcentre Plus. The award was accepted by Mrs Louise Lindsay, Director of HR, pictured centre left above. It is made to employers who have made a commitment to employ, keep and develop the abilities of staff with disabilities. Eligible organisations must meet five criteria, including interviewing all job applicants with a disability who meet a vacancy's minimum criteria, and making every effort to ensure employees who become disabled are able to stay in employment.

## LIFE SCIENCES EQUALITY SUCCESS

The Department of Life Sciences received a bronze Athena SWAN award in August 2011. The awards acknowledge demonstrated commitment to recruit, retain and advance female academics. One of 10 institutions or departments to receive awards in 2011, the activities of the Department recognised included a staff survey and an evaluation of departmental policies and practices to see what works well and where improvements could be made. The Department has also been developing an action plan which includes monitoring data related to student and staff recruitment, career progression and retention, as well as mentoring and other forms of career support.

## RECTOR'S AWARDS

In 2012 the highest ever number of staff were recognised by Rector's Awards and Medals for Excellence in Teaching, Pastoral Care, Research Supervision and Supporting the Student Experience. A total of 40 awards were announced, with record numbers of nominations received from staff and students. The awards are presented annually to members of the academic staff judged to have been most outstanding in the quality, organisation and presentation of their teaching. Of the award winners up to four may be selected to receive a Rector's Medal for Outstanding Contribution to Teaching Excellence and one of the medals carries the title of Medal for Outstanding Innovation in Teaching.

The full list is at: <http://bit.ly/LX9g4j>



*Claire Adjiman, Professor of Chemical Engineering in the Department of Chemical Engineering (Faculty of Engineering) and ESPRC Leadership Fellow.*

# Awards and honours

## EPSRC FELLOWSHIPS

In December 2011, seven researchers from the College were awarded fellowships totalling more than £6 million by the Engineering and Physical Science Research Council. Drs James Bull (Chemistry), Amelie Zair, Piers Barnes (both Physics) and Thomas Reddyhoff (Mechanical Engineering) were awarded Career Acceleration Fellowships, while Drs Fernando Bresme (Chemistry) and Simon Colton (Computing), and Professor Claire Adjiman (Chemical Engineering), pictured left, received Leadership Fellowships. The long-term ambition is that these fellowships will provide the means to help academics become leaders with the skills necessary to enable the UK to compete further on a global stage, generating the knowledge, new ideas and technologies essential to support business, government, and the UK's national priorities.

## NEW YEAR HONOURS

An obesity researcher and a mathematician from Imperial were awarded knighthoods, and a chemist received a CBE, in the 2012 New Year Honours. Professor Sir Stephen Bloom, from the Department of Medicine, was knighted for services to medical science and Professor Sir Simon Donaldson (Mathematics) received his knighthood for services to mathematics. Emeritus Professor David Phillips (Chemistry), who was awarded an OBE for services to science education in 1999, has received a CBE for services to chemistry. Also recognised in the awards were six Imperial alumni.

For the full list, see <http://bit.ly/xkRDhF>

## GOVERNMENT ADVISOR ROLE FOR SMITH

Professor Roderick Smith, Royal Academy of Engineering Network Rail Research Professor of Railway Engineering (Mechanical Engineering), was appointed Chief Scientific Advisor to the Department of Transport in January 2012. He will provide advice on transport issues to government ministers, ensuring that science and engineering evidence and advice is robust and relevant.

## AMERICAN ACADEMY MEMBERSHIP

Professor Sir John Pendry (Physics), whose theories have underpinned the development of an 'invisibility cloak', has been elected a member of the American Academy of Arts and Sciences, one of the USA's most prestigious societies, it was announced in April 2012, and a leading centre for independent policy research. Professor Pendry was welcomed into the academy's ranks alongside other new members including US Secretary of State Hillary Clinton and philanthropist Melinda Gates.

## ROYAL SOCIETY FELLOWS

Among 44 new Fellows elected by the UK's national scientific academy in April 2012 were six Imperial academics. Professors Michele Dougherty (Physics), Russell Lande (Life Sciences), Chris Hull (Physics), and Tejinder (Jim) Virdee (Physics), Emeritus Professor Timothy Williams (National Heart and Lung Institute) and Visiting Professor Jeremy Burroughes (Physics) join the Royal Society's 1,450 elite scientists in the UK and around the world. They bring the number of Fellows at Imperial, or with an ongoing association with the College, to 73.

## PRESTIGIOUS MEDICAL FELLOWSHIPS

Imperial researchers who are preventing brain injuries in newborn babies, fighting tuberculosis, improving the effectiveness of clinical trials and combating heart disease have been honoured with Fellowships from the Academy of Medical Sciences, it was announced in May 2012. Professors Denis Azzopardi (Clinical Sciences), Deborah Ashby (Public Health), and Jaspal Kooner and Ajit Lalvani (both National Heart and Lung Institute) were among 46 new fellows this year. Imperial now has 86 Fellows in the Academy.

## QUEEN'S BIRTHDAY HONOURS

Five members of staff were recognised in the Queen's Birthday Honours 2012. Including both academic and support staff, the awards honoured their service to higher education, research and medicine. Adjunct Professor Sir Tom Hughes-Hallett, new Executive Chair of the Institute of Global Health Innovation, received a knighthood for his services to palliative care; two members of the National Heart and Lung Institute were honoured: Professors Margaret Hodson (OBE for her services to respiratory medicine) and Duncan Geddes (CBE for his services to medical research, charity and education). Former College Secretary, Dr Rodney Eastwood, was made an MBE for his services to education. Dr Eastwood worked at Imperial for 25 years, until his retirement in April 2012.

## SPACE RESEARCHERS RECOGNISED

Drs Jonathan Eastwood and Peter Wass (both Physics) were awarded medals by the Committee On Space Research, one of the main international space science organisations, it was revealed in July 2012. The academics received the Zeldovich Medal, awarded in conjunction with the Russian Academy of Sciences every two years to young scientists for excellence and achievement in space science.

## ROYAL ACADEMY OF ENGINEERING

Fifty-nine new Fellows, celebrating the diversity of twenty-first century engineering in the UK, were announced by the Royal Academy in July 2012, including 11 associated with Imperial. Professors Bill Lee (Materials), Wayne Luk (Computing), Jane Plant (Earth Science and Engineering), Hugh Spikes (Mechanical Engineering) and Eric Yeatman (Electrical and Electronic Engineering) are the 2012 cohort of Imperial researchers elected. Other Fellows included Honorary Fellow Professor John Beddington, Honorary Principal Research Fellow in the Department of Life Sciences and Chief Scientific Advisor to the government, and Mr Iain Conn, a member of Imperial's Council and Group Managing Director and Chief Executive, Refining and Marketing at BP. Imperial alumni honoured are Professors Jonathan Chambers (PhD Electrical Engineering 1990), Professor Ian Metcalfe (Chemical Engineering and Chemical Technology 1982), Dr Allyson Lawless (MSc Civil Engineering 1976) and Paul Jowitt (Civil Engineering 1972, PhD 1974).

## ROYAL SOCIETY MEDALS AND PRIZES

Five Imperial scientists were honoured by the Royal Society in the 2012 list of medals, awards and prizes. Emeritus Professor Tom Kibble FRS (Physics) and Emeritus Professor and Distinguished Research Fellow Professor Andrew Holmes FRS (Chemistry) received the Royal Medal, one of the Society's premier awards. Also honoured were Professor Jenny Nelson (Physics), who won the Royal Society Armourers and Brasiers' Company prize for excellence in materials science and technology, Professor Roy Taylor (Physics) won the Rumford Medal for important discoveries in the field of thermal or optical properties of matter, and Professor Molly Stevens (Materials and Bioengineering), who was awarded a medal and prize following her selection to deliver the 2012 Clifford Paterson Lecture.

## AMERICAN HONOUR

Alan Fenwick, Professor of Tropical Parasitology (Public Health), has been elected as an honorary member of the American Society of Tropical Medicine and Hygiene. Honorary membership is conferred in recognition of outstanding accomplishment by someone who is not an American citizen who has made eminent contributions to tropical medicine and hygiene. Professor Fenwick directs the Schistosomiasis Control Initiative at Imperial, a collaborative project to help countries in sub-Saharan Africa control schistosomiasis – a disease caused by parasitic worms – and other neglected tropical diseases.





*Professor Anthony Bull (left), Professor of Musculoskeletal Mechanics, and his research team in action in the Royal British Legion Centre for Blast Injury Studies at Imperial College London. They are setting up the AnUBIS (Anti Vehicle Underbelly Blast Injury Simulator) test rig used to study the behaviour of the human skeleton under high impulse loading, such as in roadside bombs.*



## Engineering

### CLEANER GREENER CAR PROJECT

Creating the tools to help the UK automotive industry to develop the next generation of low emission vehicles will be the focus of a new £3.5 million academic consortium, which started work in September 2011. The consortium, which includes engineers from Imperial College London led by Dr Gregory Offer (Earth Science and Engineering), aims to devise new computer models to test the components and systems that power zero emission electric and hybrid vehicles. They hope this will lead to vehicles that are more affordable and better designed than current models.

### OIL REFINING IMPROVEMENTS

A £9.3 million project to make oil refining in Russia more efficient and environmentally sustainable was given the green light in February 2012. A centre for applied research on heat exchange and catalysis, involving Imperial College London, the Borekov Institute of Catalysis and British Petroleum (BP). Researchers in the consortium include Chair of the UNIHEAT Steering Committee and Joint Project Director, Professor Sandro Macchietto (Chemical Engineering). The project will focus on increasing energy efficiency and reducing heat loss in oil refining by up to 15% by improving refining operations, enhancing oil production processes, and reducing CO<sub>2</sub> emissions.

### UNDERSTANDING BLAST INJURIES

Gaining a better understanding of the injuries caused by roadside bombs and improving both treatment and the means of protection are key aims of an £8 million research centre launched in December 2011. The Royal British Legion Centre for Blast Injury Studies at Imperial College London is the first UK collaboration of its kind. Civilian engineers and scientists will work alongside military doctors, supported by charitable funding, to reduce the effects of roadside bombs or improvised explosive devices (IEDs), the leading cause of death and injury for service personnel on operations in Afghanistan and Iraq. Designing 'intelligent' combat boots to deflect the impact of a roadside bomb and diagnosing damage in the injured more quickly, so reducing further medical problems, are two potential benefits. The Royal British Legion, the leading Armed Forces charity that provides support and advice and campaigns on behalf of the whole Armed Forces community, is providing £5 million to establish the Centre, which is directed by Professor Anthony Bull (Bioengineering), pictured left.

### BIOLOGICAL 'INDUSTRIAL REVOLUTION'

Developing the tools that will enable 'biological devices' to be produced on an industrial scale will be the focus of a £5 million consortium it was announced in May 2012. Professors Richard Kitney and Paul Freemont, co-directors of Imperial's Centre for Synthetic Biology and Innovation, are leading a consortium to take the next step in industrialising synthetic biology, so that researchers can create microscopic biological devices in a safe and controlled way on a grand scale, using bioparts from DNA and host cells like bacteria or yeast. Working at an industrial scale will help unlock the commercial potential of these minute devices, which can be used for a range of applications including the production of chemicals, materials, biosensors and biofuels.

### RESEARCHER WINS TOP PRIZE

Research into bone disease has helped an Imperial researcher scoop a top engineering prize from the Royal Academy of Engineering. Dr Alessandra Carriero (Bioengineering) received the Sir George Macfarlane Award from the Academy for her research into bone fractures and abnormal bone growth. She received the award at the Academy's AGM in London in July 2012.

## Business School

### FUTURE CITIES RESEARCH

Imperial, Cisco and UCL entered a three-year agreement to create a 'Future Cities Centre' in November 2011. The centre will be a physical space in Shoreditch where businesses, academics and start-ups can collaborate. It will be part of Tech City, the fastest growing technology cluster in Europe. The centre will focus on the themes of future cities and mobility, smart energy systems, the 'internet of things', and business model innovation. New research associates from Imperial and UCL will co-locate in the new facilities to embark on new research activities, as well as draw on the institutions' existing research. At Imperial, two major research programmes are already exploring how cities can become more intelligent and sustainable already. The Climate Knowledge and Innovation Community (KIC) is looking at issues like dramatically reducing cities' carbon consumption and improving energy and transport infrastructure; and the Digital Cities Exchange is investigating how digital technologies can boost the capabilities of the energy, health, transport and utility resources.

### NEW FOCUS ON ENVIRONMENTAL TECH

In October 2011, Professor Richard Green, an expert in renewable energy and electricity markets, became the first Alan and Sabine Howard Professor of Sustainable Energy Business, a chair named after its supporters. Professor Green brings a business perspective to new sustainable energy technologies, including those being developed at Imperial, such as carbon capture and storage, fuel cells and smart electricity networks. In his new role, Professor Green continues his research on the potential impact of introducing large amounts of wind power into the British electricity market and collaborates closely with colleagues across the College, particularly in Electrical and Electronic Engineering, the Centre for Environmental Policy and the Energy Futures Lab.

### BOARD MEMBER IS TATA SUCCESSOR

In November 2011, Cyrus Pallonji Mistry, a member of the Business School's Rajiv Gandhi Centre Advisory Board, was named as successor to Ratan Tata to head the \$83 billion Tata group of companies. Mr Mistry has served on the advisory board since its formation in 2005 and is described as having been instrumental to the vision and growth of the centre.

## Medicine

### UNEXPECTED STATIN BENEFIT

The death rate among patients prescribed a statin in a major trial, led by Professor Peter Sever (National Heart and Lung Institute), that ended in 2003 is still lower than those given a placebo, even though most participants in both groups have been taking statins ever since. Analysis published in August 2011 of the number and cause of death among 4,605 participants in the ASCOT (Anglo-Scandinavian Cardiac Outcomes Trial) trial based in the UK, has shown that after 11 years' follow-up, overall mortality is 14% lower in the group originally assigned atorvastatin versus a placebo, due largely to fewer deaths from infection and respiratory illness. The original trial was stopped early because the statin was so effective at preventing heart attacks and strokes. Since then, most participants from both groups have been taking statins.

*Medicine continues overleaf*

## Medicine *continued*

### SOUTH ASIAN DIABETIC GENE VARIANTS

An international team of researchers led by Dr John Chambers (Public Health), has identified six new genetic variants associated with type-2 diabetes in South Asians. The findings, published in August 2011, give scientists new leads in the search for diagnostic markers and drug targets to prevent and treat this major disease. People of South Asian ancestry are up to four times more likely than Europeans to develop type-2 diabetes, which is a major risk factor for heart disease and stroke. Around 55 million South Asian people are affected worldwide, and the number is projected to rise to 80 million by 2030.

### DRUGS SWITCH IMPROVES SURVIVAL

Changing to exemestane after two to three years of tamoxifen drug treatment can cut women's risk of dying from breast cancer, long-term follow-up data, from a study that began in 1998 led by Professor Charles Coombes (Surgery and Cancer), has shown. Until recently, most women diagnosed with early stage, oestrogen receptor-positive breast cancer were given tamoxifen for around five years after surgery. This was shown to cut the risk of death by 34%. However, recently, increasing numbers of these women have been treated with another class of drugs – aromatase inhibitors – either as first-line treatment or after treatment with tamoxifen. The long-term results show that improvements observed following the switch continue for at least five years after finishing treatment.

### NEW LIGHT SHED ON PENICILLIN

The fungus that contaminated Fleming's bacterial culture in his laboratory at St Mary's Hospital Medical School (now part of Imperial) was ascribed to the species *Penicillium chrysogenum*. In November 2011, Drs Matthew Fisher and Daniel Henk (both Public Health) have subjected preserved specimens of the fungus to modern genetic analysis, and discovered that it is actually a closely-related species yet to be named. They also asked volunteers around the world to collect airborne fungal spores by leaving out pieces of sticky tape overnight. Comparing genetic data from Fleming's fungus with samples returned to see what modern science would reveal found that there may be four different species under the label of *Penicillium chrysogenum*, at least two of which are found all over the world.

### SINGAPORE MEDICAL SCHOOL PROGRESS

The Lee Kong Chian School of Medicine being jointly developed by Imperial and Nanyang Technological University (NTU) in Singapore, held its ground-breaking ceremony in May 2012. Presided over by the Singaporean Ministers of Health and Education, the event celebrated the start of work on the School's new Novena Campus, home to the School's headquarters. Equipped with administrative and teaching facilities, the HQ will be ready by June 2013, in time for the first intake of 50 students in August 2013. The campus's Clinical Sciences Building is expected to be ready in 2015.

## Natural Sciences

### SOLAR VARIABILITY AND COLD WINTERS

Research has shed new light on a link between decadal solar variability and winter climate in the UK, northern Europe and parts of America. The study, co-authored by Professor Joanna Haigh (Physics) and carried out by the Met Office with Imperial and the University of Oxford, was published in October 2011. Professor Haigh's research in atmospheric physics laid the groundwork for the study, which shows that low UV output from the sun can contribute to cold winters over parts of the northern hemisphere, such as recently seen in the UK. Years of higher UV have the opposite effect. These effects had been observed for years but the research has established this as more than coincidence.

### BIOMASS ENERGY POSSIBILITIES

Energy generated from plant biomass could deliver up to one fifth of global demand without causing a decline in food production, although there are challenges involved, according to a report by Drs Raphael Slade, Robert Gross and Ausilio Bauen (Environmental Policy), published in November 2011. Modern energy services, such as heat, power and transport fuels, can be provided from biomass; sources of which include waste timber, agricultural residues, and dedicated energy crops. Increased use of bioenergy has the potential to increase energy security and stimulate rural development. It may also contribute to reducing carbon emissions as plants absorb carbon dioxide from the atmosphere as they grow and, provided minimal non-renewable energy is used when processing them into useful materials or energy products, the net emissions can be very small. The study is the first systematic review of the evidence base and was carried out to understand why there are a large range of estimates and how this affects the wider debate about bioenergy.

### OPAL PROJECT WINS LOTTERY AWARD

The Open Air Laboratories project (OPAL) was recognised as one of the UK's best environmental projects at the National Lottery Awards in November 2011. Led by Dr Linda Davies and a team from the Centre for Environmental Policy, OPAL beat hundreds of other projects to take home a runner-up trophy at a ceremony broadcast live on television. OPAL is a nationwide initiative that inspires communities to discover, enjoy and protect their local environments while working alongside top scientists and contributing to national scientific research. Partners include the Natural History Museum, the Met Office, universities and voluntary groups. Lottery funding has paid for an OPAL community scientist to be based in every region, working with some of the most deprived communities in England.

### JUPITER MISSION GO-AHEAD

In May 2012, the European Space Agency approved a new mission to explore Jupiter and its icy moons, to reveal fresh insights into the habitability of the 'waterworlds' orbiting the giant planets in our solar system and beyond. Approval for the estimated billion euro contract for the mission came with UK researchers deeply involved in the leadership and planning for the Jupiter Icy Moons Explorer (JUICE) and playing a vital role in gaining approval for the mission ahead of rival bids. The proposal was led by Professor Michele Dougherty (Physics), and UK scientists make up four of the 15 members of the ESA Science Study Team for JUICE, with the team including researchers from Imperial, Oxford University, University of Leicester, and UCL. The JUICE spacecraft is scheduled to launch in 2022, arriving in the Jupiter system in 2030.

### LOW EXTINCTION RATE DISGUISES AMAZON CATASTROPHE

A discrepancy between the number of animal species reported extinct and the reality of population numbers on the ground is disguising a catastrophic decline in biodiversity in the Amazon rainforest, according to research published in July 2012. No animal species have been confirmed extinct in the Brazilian Amazon during the last 40 years, despite high rates of deforestation there. But the authors of the study led by Dr Rob Ewers (Life Sciences) say this masks the critical condition of many species, many of whom do not have enough remaining habitat to survive long term. Extinction can take decades to materialise as the last individuals of populations die off. This time lag means extinctions over the last 40 years are likely to pale into insignificance compared to those expected to occur in the coming 40.

## Multidisciplinary

### NEW HEAT SOURCES NEEDED

UK homeowners need to be encouraged to replace gas boilers and adopt new low carbon sustainable heating systems in the future, if the country is to meet its CO<sub>2</sub> reduction targets, according to a briefing paper released in September 2011. The paper, co-authored by Dr Adam Hawkes and published by the Grantham Institute for Climate Change at Imperial, explored the options already on the market for reducing carbon emissions to almost zero in homes. Wholesale adoption of these technologies such as heat pumps (effectively refrigerators working in reverse) is vital, say the authors, if the government is to meet its long-term commitment of reducing carbon emissions in the UK by 80% by 2050. The Grantham Centre briefing papers aim to inform policy and policy debate.

To download this, and other, papers visit: [www.imperial.ac.uk/climatechange/publications](http://www.imperial.ac.uk/climatechange/publications)

### BACTERIA AND DNA BUILDING BLOCKS

Scientists have successfully demonstrated that they can build some of the basic components for digital devices out of bacteria and DNA. This could pave the way for a new generation of biological computing devices. In research published in October 2011 by co-authors Professor Richard Kitney (Synthetic Biology and Innovation and Bioengineering) and Professor Martin Buck (Life Sciences), the researchers have demonstrated that they can build logic gates, used for processing information in devices such as computers and microprocessors, out of harmless gut bacteria and DNA. Although still a long way off, the team suggests that these biological logic gates could one day form the building blocks in microscopic biological computers. Devices could include sensors that swim inside arteries, detecting the build up of harmful plaque and rapidly delivering medications to the affected zone.

### SUSTAINABLE CITIES TECHNOLOGY

The computer technology company Intel announced the launch of the Intel Collaborative Research Institute for Sustainable Connected Cities in partnership with Imperial and UCL at an event in 10 Downing Street in May 2012. The new institute, part of Intel's new worldwide collaborative research institute programme, will be its first research centre and the global hub for exploring how technology can support and sustain the social and economic development of cities worldwide. Edward Astle, Pro Rector (Enterprise), said

that the institute, which involves staff from the Faculty of Engineering and the Faculty of Natural Sciences (Computing), could make all kinds of intelligent systems a reality in cities and help them to run more smoothly.

### BACTERIAL INFECTION CENTRE

A new centre based at Imperial will provide a centre of excellence in the fight against bacterial infections, many of which have undergone a significant rise in recent years. The new MRC Centre for Molecular Bacteriology and Infection, directed by Professor David Holden (Medicine) will use multidisciplinary approaches and cutting-edge techniques to study bacterial infections at the levels of atom, cell and organism, with the aim of finding ways of developing new antibiotics, combating antibiotic resistance and developing effective vaccines. Bacterial infections cause a huge burden of disease throughout the world and kill many millions of people and animals. Resistance to antibiotics is now widespread among bacteria and is increasing at an alarming rate. The centre will be the only one of its kind in the world to focus specifically on disease-causing bacteria. The centre, whose research involves staff from the Faculty of Medicine and the Faculty of Natural Sciences, will also specialise in training young academics and clinically qualified researchers in bacterial pathogenesis to address the current lack of UK-trained expertise in the field.

### DOCTORAL TRAINING CENTRE FUNDING

The Biotechnology and Biological Sciences Research Council (BBSRC) has awarded approximately £4.5 million to Imperial, Royal Holloway University of London and the Research Complex at Harwell to establish a joint Doctoral Training Partnership, led academically by Professor Martin Buck (Life Sciences) for Imperial. The funding is part of a £67 million investment in postgraduate training and development in the biosciences announced by the Minister for Universities and Science, David Willetts, in January 2012. The funding will support 14 doctoral training partnerships across the country. Imperial has five doctoral training centres in plastic electronics, theory and simulation of materials, controlled quantum dynamics, chemical biology, and energy futures.

### SMALLER CARBON FOOTPRINT

An initiative to reduce the carbon footprint of one of the UK's largest retailers has taken a leap forward following the successful roll out of an energy efficiency pilot scheme at one of its stores. Since the start of the project in February 2012, the store has reduced energy demand by 13%, which equates to savings of 60,000 kilowatt hours or 57 tonnes of CO<sub>2</sub>. Researchers from Imperial are working in partnership with Sainsbury's on a five-year project to develop technologies and solutions that will lower its carbon footprint to help it meet with future climate change legislation. The team has trialled new ways of improving the way that the energy is used, such as developing new work processes for keeping the fridges cool and enhancing the heating system in Sainsbury's Hythe store. The work involves Imperial researchers from the Faculty of Engineering and the Grantham Institute for Climate Change, and is led by Professor Nilay Shah (Chemical Engineering).

### STRATEGIC PARTNERSHIP WITH BBSRC

Imperial scientists hope to deliver advances in biosciences, including food security, bioenergy, ageing and synthetic biology, more quickly and cost effectively through a new high-level partnership between the Biotechnology and Biological Sciences Research Council (BBSRC) and the College announced in February 2012. BBSRC's strategic partnerships, of which there are seven currently, encourage scientists to work more closely with those who share the same research goals, and give universities the opportunity to take a coordinated approach to investing BBSRC funds they are awarded for research activities and facilities. The partnerships recognise the long-standing record of excellent research that the universities have in biological sciences. Professor Maggie Dallman, Faculty Principal (Natural Sciences), said that the agreement really underlined how closely each of the College's global priorities and research objectives mirrored those of the research council. BBSRC-funded research at Imperial includes the science underpinning health, and ageing; the production of food for a growing global population; the future production of energy from biomass; and industrial biotechnology that will allow us to create new types of pharmaceuticals using novel industrial methods.





*A student inspects the new Carbon Capture Pilot Plant at the heart of the Department of Chemical Engineering (Faculty of Engineering).*



## NEW UNDERGRADUATE SCHOLARSHIP

Seeking to attract Bulgaria's brightest engineering undergraduates, Imperial announced its first scholarship for Bulgarian students in October 2011. The scholarship, which has been established in perpetuity, is targeted at Bulgarian school pupils from lower income families, who attend state schools. The Kolio Ficheto Bulgarian Engineering Scholarship, named in honour of a renowned nineteenth-century Bulgarian master builder, will provide full funding for a single student of exceptional ability to study on a three or four-year course within the Departments of Mechanical Engineering, Chemical Engineering or Computing, as well as interdepartmental courses in maths and computing.

## RANKING LEAP FOR MANAGEMENT MSc

The Business School's MSc in Management has been ranked first in the UK and 13th in the world in the Financial Times's 2011 Master's in Management ranking, jumping more than 10 places from last year. Programme Director Dr Marco Mongiello (Business School) said it was a fantastic achievement that reflected the success of the course's graduates.

## ONLINE LEARNING RECOGNISED

The Educational Technology Unit at the Business School won the 2011 Sloan-C Effective Practice Award for the second year in succession. The team, headed by David Lefevre and including Marc Wells and Karlie Etim, won the award in recognition of their work in providing online courses for students that deliver the skills and knowledge required for face-to-face classes. The approach has been refined steadily over five years to the point where student satisfaction for the School's online teaching is comparable to face-to-face classes.

## BUSINESS MASTER CLASSES

Undergraduates at Imperial have been offered the opportunity to get to grips with current business issues and practices, as a way to enhance their employability and broaden their knowledge, in a pilot scheme beginning in January 2012. Offered free, the Business Imperial classes cover topics such as the economic crisis and the reasons behind it, the rise of global marketing, and the future implications of the rapid growth of India and China. The pilot classes were taught by leading professors in innovation, entrepreneurship, marketing and economics at the Business School, including Professor Bart Clarysse who holds the Chair in Entrepreneurship.

## NEW SCHOLARSHIPS FOR CHINESE POSTGRADUATES

Fifteen scholarships were announced in October 2011 for postgraduates starting in October 2012. Enabling Chinese students of outstanding academic merit and potential to undertake a PhD at Imperial, the scholarships are supported jointly and equally by Imperial and the Chinese Scholarship Council. They cover all tuition fees, an allowance to cover maintenance and additional costs, and a return air fare.

## LECTURERS' NEW TOOLS

Imperial academics are getting access to a system that allows them to record their lectures and make video tutorials. The initiative, announced in July 2012, is being rolled out by the ICT Division over the next three years, and will enable staff to record lectures and presentations, enhancing the quality of material shared online with students. It seeks to address suggestions from students in Imperial College Union's response to the 2011 National Student Survey report, in which students requested a College-wide approach to capturing lectures.

## NEW CARBON CAPTURE PILOT PLANT

In April 2012, students took control of a £2 million carbon capture pilot plant in the Department of Chemical Engineering. The plant is the most sophisticated of its kind in an academic institution in the world. It provides a unique hands-on educational experience in a controlled and safe environment for undergraduate engineering students. The plant demonstrates how CO<sub>2</sub> emissions can be captured by a power plant, through which students can learn principles that can be applied to a range of industrial settings including petrochemical plants. The plant is controlled by the latest communication, computing and sensing technology and Imperial academics expect to train more than 8,000 undergraduates during the plant's predicted 25-year lifespan.

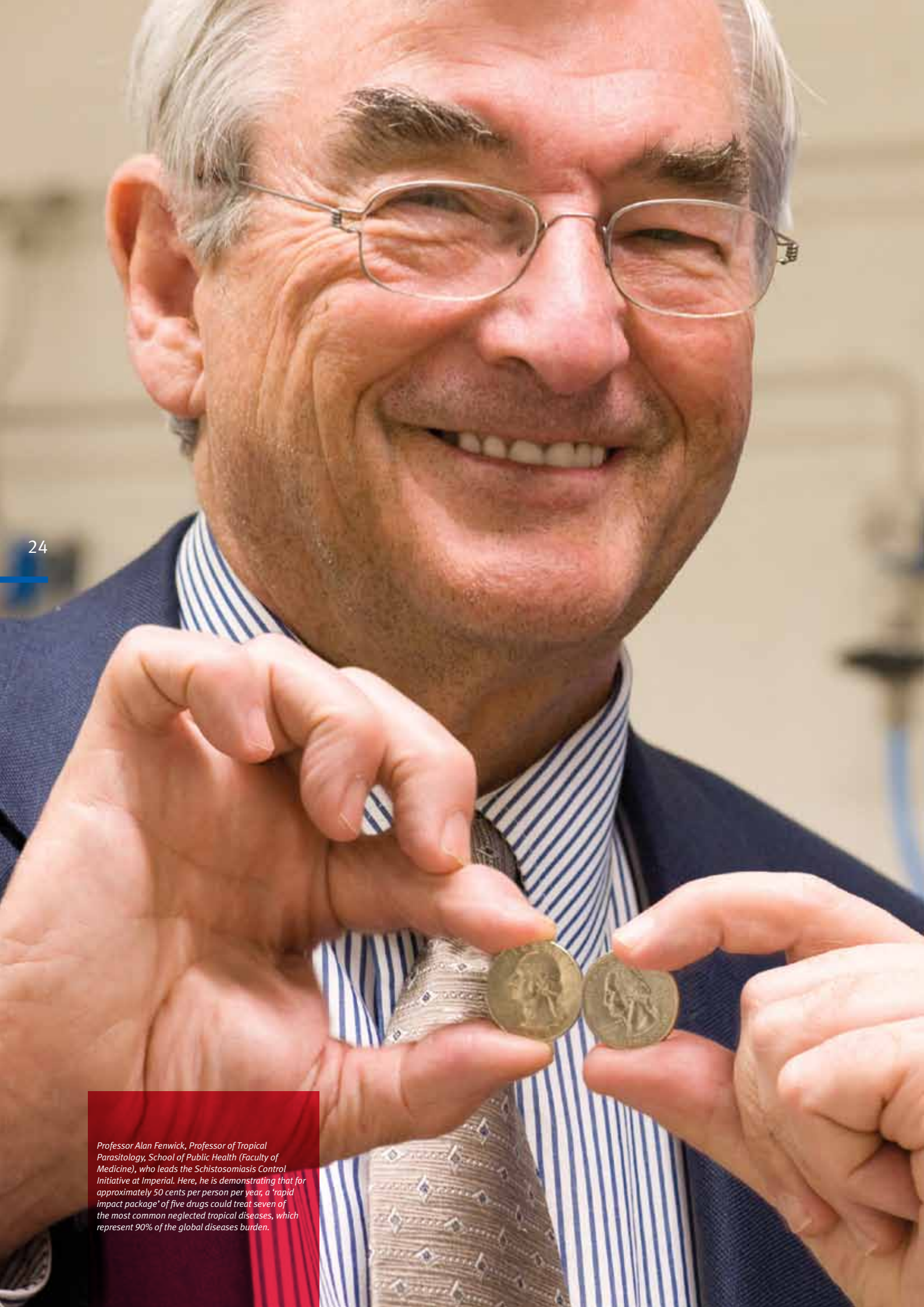


## CHANGES TO TEACHING DAY

April 2012 saw the announcement of several changes to the College teaching day. Building in time for undergraduates to take part in activities going beyond discipline-based teaching, the aim is to enhance future employment prospects. Changes include a new time on Monday afternoons for co-curricular activities and phasing out the current two-hour free period over weekday lunchtimes, with departments still being required to set aside at least an hour for lunch. Two new programmes, Business Imperial and Imperial Horizons, have been piloted, allowing students to engage with business and environmental issues through seminars.

## EDUCATION PARTNERSHIP

In May 2012 Imperial joined Rio Tinto's Global Education Partnerships Programme. The programme will establish a worldwide network of leading universities supporting the training of future engineers, who are in great demand by the mining industry globally. The College partnership will be built around a series of education-related initiatives, including scholarships, to provide 12 academically outstanding undergraduates with financial support and access to mining-related work experience. Rio Tinto will also fund a geology teaching fellow in the Department of Earth Science and Engineering for five years, as well as supporting geology field trips for first year Earth Science and Engineering students. Head of Department, Professor Jan Cilliers (Earth Science and Engineering) said the partnership would also help the College ensure courses remained relevant to industry.

A close-up photograph of Professor Alan Fenwick, an older man with grey hair and glasses, smiling warmly. He is wearing a dark blue suit jacket over a blue and white striped shirt and a patterned tie. He is holding two gold coins, one in each hand, between his fingers. The background is a blurred outdoor setting.

*Professor Alan Fenwick, Professor of Tropical Parasitology, School of Public Health (Faculty of Medicine), who leads the Schistosomiasis Control Initiative at Imperial. Here, he is demonstrating that for approximately 50 cents per person per year, a 'rapid impact package' of five drugs could treat seven of the most common neglected tropical diseases, which represent 90% of the global diseases burden.*



## FUNDING BOOST FOR BIOMEDICAL RESEARCH

Imperial College Healthcare NHS Trust and the College have been given £112 million by the National Institute for Health Research, to fund their Biomedical Research Centre (BRC). This funding will enable the BRC to continue to carry out research in areas including cancer, diabetes, heart disease, neuroscience, renal medicine and transplantation, paediatrics and women's health. The award was announced by the Prime Minister, David Cameron. It will cover five years from April 2012, and renews the funding granted to the Trust and the College by the NIHR in 2006 to establish the BRC. It forms part of the UK's largest ever investment in early stage health research, announced this week, which has given an £800 million funding boost to 31 university and NHS partnerships. Imperial College London and Imperial College Healthcare NHS Trust have received the largest amount given to any partnership. Together, the College and the Trust form an Academic Health Science Centre, which aims to improve the quality of life of patients and populations by taking new discoveries and translating them into new therapies as quickly as possible.

## PARTNERSHIP TO BRING HEALTHCARE INNOVATION

Imperial College Health Partners, a limited company that aims to improve the health and care of the population of 1.9 million people living in north west London, was formed in June 2012. The partnership brings healthcare providers, including acute and specialist hospital, mental health and community care services, into partnership with the College to drive practical improvements to the quality of healthcare delivery. By coordinating the adoption of innovation, the partnership aims to bring benefits to the health of the local population and, through the dissemination of best practice, extend these more widely within the UK and beyond. Professor the Lord Darzi, Paul Hamlyn Chair of Surgery at Imperial College London and formerly Parliamentary Under-Secretary of State at the Department of Health, developed the proposal to establish such an Academic Health Science Partnership and has been appointed the company's Chairman. Collaborations to identify and share innovations that will make an impact on healthcare will draw on the nationally and internationally recognised expertise of individual partners in clinical service, research and education. The partners will work closely with the planned North West London Local Education and Training Board to embed new practices through the training and education of healthcare workers.

## PATIENT SAFETY FIRST

Hospital ward products designed to reduce medical error formed part of an exhibition at the Royal College of Art in October 2011. The designs were the outcome of the Designing Out Medical Error (DOME) project, a collaboration between clinicians, business experts and designers from Imperial College London, Imperial College Healthcare NHS Trust and the Royal College of Art's Helen Hamlyn Centre. The project was funded by the Engineering and Physical Sciences Research Council (EPSRC). Oliver Anderson (Surgery and Cancer) and Grace Davey and Jonathan West from the Helen Hamlyn Centre presented three of the designs in the exhibition: a vital signs trolley, a new visual strategy for promoting hand hygiene, and a 'carestation' that provides the equipment needed for patient care. The carestation is already being trialled on the wards at St Mary's Hospital and the team plans to test and commercialise the whole package in the near future.

See a video about the project at:  
<http://bit.ly/qmtpa>

## IMPERIAL INITIATIVE COME IN TOP TWO

The Schistosomiasis Control Initiative (SCI) at the College has been rated as one of the top two charities globally for achieving impact with donations by an independent charity evaluator. The American-based non-profit organisation GiveWell rigorously examined hundreds of charities worldwide to identify which have the most impact for each dollar they receive. The Against Malaria Foundation and the SCI were found to be the two charities that allow donors to accomplish as much good as possible with their money. The SCI, which is led by Professor Alan Fenwick (Public Health), pictured left, was set up at Imperial in 2002 to deliver treatments for schistosomiasis and other neglected tropical diseases (NTDs) to people in sub-Saharan Africa at high risk of serious disease. NTDs cause severe pain and lifelong disability, but receive little attention because they kill fewer people than Aids and malaria. Around 500 million people in Africa have two or more NTDs and need regular treatment. In January 2012, the UK Department for International Development pledged a five-fold increase in Britain's support, as part of an international effort to help rid the world of NTDs.

## HAND-HELD MEDICAL SCANNERS

Scientists have developed a new way to create electromagnetic terahertz (THz) waves or T-rays – the technology behind full-body security scanners. The researchers say their new stronger and more efficient continuous wave T-rays could be used to make better medical scanning gadgets and may one day lead to innovations similar to the 'tricorder' scanner used in Star Trek. Researchers from the Institute of Materials Research and Engineering, a research institute of the Agency for Science, Technology and Research in Singapore, and Imperial College London in the UK, including Professor Stefan Maier (Physics), have made T-rays into a much stronger directional beam than was previously thought possible, and have done so at room-temperature conditions. This is a breakthrough that should allow future T-ray systems to be smaller, more portable, easier to operate, and much cheaper than current devices.



## FUNDING AWARD

In March 2012, it was announced that the Wellcome Trust-McMichael Clinical Research Facility has been awarded £10.9 million in funding from the NIHR (with effect from 1 September 2012) to support the translation of scientific advances into benefits for patients through purpose-built Clinical Research Facilities (CRFs). The Wellcome Trust-McMichael Clinical Research Facility incorporates two wards, pictured above, on the ground floor of the Imperial Centre for Translational and Experimental Medicine (see page 29) where patients and healthy volunteers can work with researchers to evaluate new treatments.





*A young member of the public is inspired by a mechanical dragon at Imperial's first Festival in May 2012.*



# Community and public engagement

## SOIL SAVING BACTERIA

A team of students who genetically engineered bacteria to help plants survive soil erosion scooped top prizes at the final of the International Genetically Engineered Machine (iGEM) World Championship at MIT in November 2011. The nine undergraduates, from the Departments of Bioengineering and Life Sciences got to the final with their developments using genetically engineered E.coli bacteria to solve the dual problems of desertification and poor crop growth in arid climates around the world. Around the world, soil erosion prevent crops and other plants from growing on land areas equivalent to half the size of the UK each year.

## SUSTAINABLE CAR CHALLENGE

From competing in an all-electric supercar to helping to calculate who has won the race, Imperial is involved in many facets of one of the UK's premiere 'green' motoring events. The Royal Automobile Club (RAC), Britain's oldest motoring organisation, held the RAC Future Car Challenge to test more than 60 cutting-edge low emission vehicles from Brighton to London in November 2011. Instead of getting to London in the fastest time, the aim of this competition is for teams to make it to the capital using the least amount of energy, to find which car is the most sustainable. Low emission cars involved include high performance diesel and petrol engines, and vehicles powered by batteries, fuels cells and hybrid combustion engine/electric motors. Imperial academics, students and alumni lent a hand to assess, judge and compete in the challenge, while others could use its data for their PhD research.

## SCIENCE MUSEUM LATES

In February 2012, surgeons and researchers from the Department of Surgery and Cancer put on an evening of surgical-related performances, activities and entertainments as part of the *Lates* programme at the Science Museum. The events are a popular London fixture for a younger adult audience looking for ways of combining science with a social life. For surgical educator Professor Roger Kneebone (Surgery and Cancer), it was an opportunity to showcase his department's work using technologies and techniques developed to train surgeons and help medical teams to work better together.

## SANKA DAY

During Universities Week in May 2012, Imperial hosted its third Sanka Day, during which local school pupils visited the South Kensington Campus to find out more about Japanese culture and about life at

the College. Sanka means *participation* in Japanese. The Japan theme this year was particularly apt and in celebration of Imperial hosting members of the Japanese Olympic team (see *Podium awards* below). The visiting primary schoolchildren were given the opportunity to learn basic Japanese, sample some judo and traditional dancing, as well as try out Taiko drums. For many of the young visitors the trip was also their first experience of a university campus.

## IMPERIAL FESTIVAL

Aiming to celebrate the College and engage with the public, the first Imperial Festival took place in May 2012. Hosted by the new Court, friends, neighbours and the wider community were invited to come and explore life at Imperial through the activities of its staff and students. The event included opportunities to meet researchers face-to-face and discuss their work, to see hands-on demonstrations, and enjoy music, comedy, dancing and art. All activities were free, open to the public and for all ages. The event, which will be held annually, also incorporated the Alumni Reunion, giving former students an opportunity to see what Imperial is like today.

## PODIUM AWARDS

The College collected two bronze medals in the Podium Awards during Universities Week in May 2012. The event celebrated colleges and universities supporting the London 2012 Olympic Games. Commercial Services received a bronze medal in the British Council Award for Innovative International Collaboration category for its work, led by Assistant Director of Commercial Services and Head of Sport Imperial Neil Mosley, hosting athletes from 14 nations at Imperial, providing them with sports facilities and, in the case of the Japanese and Swiss associations, accommodation. Engineering claimed a bronze medal in the category for outstanding sporting project for its entry in the Rio Tinto Sports Innovation Challenge. The entry, which was managed by Dr Dominic Southgate (Bioengineering), saw students develop projects to enhance the sporting experience and opportunities available to Paralympians and other athletes with disabilities.

## GOLD MEDALS FOR MENTORED SCHOOL

In May 2012, A-level students Tania Mahmood and Zaynab Tahir won gold medals at the International Sustainable World (Energy, Engineering and Environment) Project Olympiad in Houston, Texas, for their project on the optimum conditions to maximise the growth of algae to produce

a biofuel. They were among a handful of entries given golds out of 440 projects from 68 different countries. The sixth formers were supported in their project by Mr Alan West, Director of Imperial's Reach Out Lab, Dr Melanie Bottrill (Outreach) and Daniel Beatrup (Chemistry).

## INSPIRATIONAL LESSONS

In June 2012, eight postgraduates graduated from Imperial's INSPIRE (Innovative Scheme for Postgraduates In Research and Education) scheme, which aims to bridge the gap between scientific research at universities and schools by placing top postgraduate research scientists in schools. INSPIRE began in 2002 and has evolved into a project offering a seven-month PGCE for postdoctoral students, PhD graduates and postgraduates coming to the end of their research. The PGCE is combined with two months of INSPIRE activities for young people where the postgraduates put on science clubs, provide university-level training for students over 16, give careers advice, organise science conferences and trips for the pupils to come and see the research laboratories at Imperial. INSPIRE aims to encourage research graduates with a passion for teaching to bring their enthusiasm and research experience into the classroom with the help of Outreach and the Department of Physics, to tackle the shortage of physics and chemistry teachers in state schools. INSPIRE is organised in partnership with Canterbury Christ Church University.

## IMPERIAL MAGAZINE

Imperial is the College's new magazine for friends, supporters and alumni, covering thought-provoking stories and images from across our university community.



Download *Imperial* magazine from [www.imperial.ac.uk/alumni/magazine](http://www.imperial.ac.uk/alumni/magazine)

Imperial  
London College

*The new Imperial Centre for Translational and Experimental Medicine building at the Hammersmith Campus, which was officially opened by George Osborne MP, Chancellor of the Exchequer, in May 2012.*



# Estate developments

## BIOMEDICAL RESEARCH FACILITY

A major new research facility at Imperial designed to expand and accelerate the translation of scientific discoveries into new ways of preventing, diagnosing and treating diseases was officially opened by George Osborne MP, Chancellor of the Exchequer, in May 2012. The £66 million Imperial Centre for Translational and Experimental Medicine (ICTEM) at the Hammersmith Campus, combines laboratory space for up to 450 scientists with a dedicated facility for evaluating and developing new medical treatments through clinical trials. The six-storey building is located alongside Hammersmith Hospital and is 500 metres from the College's new campus, Imperial West, currently being developed to grow Imperial's research and education activities in west London.

The opening of the Centre, built over four years with support from the British Heart Foundation, Imperial College Healthcare NHS Trust, the Medical Research Council and Wellcome Trust, marks the fruition of the College's largest ever investment in research facilities. ICTEM is a flagship facility for the Academic Health Science Centre, the College's partnership with Imperial College Healthcare NHS Trust, established in 2007, which aims to ensure that new discoveries and technologies are translated into new therapies as quickly as possible. Researchers in the new building will work closely with engineers and scientists across Imperial to generate innovative solutions to health problems.

## PLANNING APPROVAL FOR IMPERIAL WEST

In July 2012 the London Borough of Hammersmith and Fulham approved masterplan proposals for Imperial West, the new campus located on a former BBC site on Wood Lane in west London. The planning permission will allow the College to bring together research and teaching facilities, postgraduate accommodation, commercial and residential space, and new retail and leisure services on the 88,000m<sup>2</sup> site. The application also included plans for a 20,000m<sup>2</sup> business incubator, a publicly accessible square, and improved pedestrian and cycle routes.

Imperial West is a major element of the wider regeneration of the White City Opportunity Area, which is being promoted by the London Borough of Hammersmith and Fulham and Greater London Authority. It will provide real and lasting benefits for the capital, helping to grow the London economy, and has the capacity to generate and sustain over 3,000 jobs.



## POSTGRADUATE ACCOMMODATION

The first residents of Imperial's new postgraduate accommodation complex began moving in in September 2011. Griffon Studios, pictured above, is a development of 566 studios in Battersea and was developed by the College together with property developer, Berkeley First. Its aim is to expand the limited provision of accommodation available to postgraduates in London, with priority given to Imperial students. The accommodation, close to Clapham Junction station, also includes a gym, common room and gardens. Its rooms are being released in two phases. The first phase saw 452 studio apartments made available for postgraduates in 2011, with the remaining 114 completed in time for the start of the 2012–13 academic year.

## CARBON MANAGEMENT STRATEGY

In November 2011, Management Board considered a paper by Facilities Management on the successes and challenges for the College's carbon management strategy. Successes noted included the 'hit the button' campaign that encourages staff to switch off their computers when not in use, and the 'student switch off' initiative, which promotes sustainable behaviour in halls of residence. The paper also reported the positive results of trials to reduce the energy usage of buildings, which have included reviewing and optimising the operation of central heating, ventilation and air conditioning systems. Challenges faced have included the difficulty in progressing energy-saving actions quickly due to the amount of consultation required, as well as the ongoing need to engage staff and students in steps they can take to reduce energy usage, as highlighted by the College's StepChange campaign.



## PRINCE'S GARDENS HALLS RECOGNISED

The College collected a Civic Trust award for the new halls of residence in Prince's Gardens, pictured immediately above, at a ceremony in March 2012. The halls, which were completed in 2007 and 2009, were described by the panel as high quality, attractive, contemporary buildings which respect and respond to their surroundings. The Civic Trust recognises excellence in the built environment and its awards are given to projects that make an outstanding contribution to the appearance of the local area.

# 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 Second Schedule to the Charities Act 1993. 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 cooperation 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 College'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 2010–14, 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 and 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 Accounts* 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. 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 and a generous undergraduate bursary scheme is provided. Scholarships are provided for overseas students, which are awarded on academic merit and financial need, and the College has a dedicated fund of around £500k per annum to support PhD students.



Following the government's decision to increase the level of tuition fees from 2012, the College's undergraduate tuition fees for home and EU students starting in the academic year 2012–13 have been set at £9,000 per year, reflecting the high quality of education and student experience that Imperial offers. 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 35% of its additional fee income on supporting access. 32% will be used to provide financial support for students with the remaining 3% providing additional support for the College's outreach activities.

### **Financial Support**

The College offers a very flexible financial support package for home undergraduates starting in 2012, including tuition fee waivers, cash in hand and/or a partial accommodation fee waiver, and help for those living costs that cannot be covered by the system of government loans that all eligible full-time students are able to receive. The College's package of financial aid will be provided to students from families with household incomes up to £60k.

### **Outreach**

Imperial College London 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 and exciting lectures, to a schools visit programme to help raise awareness of higher education.

### **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 2011–12 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 4 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, 8 July 2007, established the College as a university with the name and style of 'The Imperial College of Science, Technology and Medicine'. On 16 March 2011 the Privy Council approved a number of changes to the Statutes which had been recommended in the governance review. These amendments included changes to the membership of the Council and the appointment processes for senior staff at the College.

## 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, mainly formal body. It 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. The Court normally meets at least once a year to receive the College's Annual Report and audited financial statements. In addition, changes to the College's Charter require the approval of the Court before they can be submitted to the Privy Council. In 2011 the Council, acting on the recommendations of a governance review, decided to reconfigure the Court as a stakeholder body which to include representatives from associated NHS Trusts, funding agencies, alumni and companies, public sector bodies and charities which fund research and employ graduates from the College. The reconfigured Court came into effect on 1 October 2011 and now consists of 100 members most of whom are from outside the College. Its membership also includes representatives of the College's staff and students.

**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 & Rector 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 & Rector 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.

As Chief Executive of the College, the President & Rector exercises considerable influence upon the development of institutional strategy, the identification and planning of new developments, and the shaping of the institutional ethos. He is supported and advised by a Management Board comprising the President & Rector, the Deputy Rector, the Principals of the Faculties and the Imperial College Business School, the Chief Financial Officer, the Pro Rectors for Education, Research, International and Enterprise, the College Secretary and Registrar, and the Chief Operations Officer.

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 College's significant risks that has been in place for the year ended 31 July 2012 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 six committees; the Audit Committee, Risk Committee, the Remuneration Committee, the Nominations Committee, the Development Board and the Endowment Board. 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 & Rector, all are chaired by external members of the Council. The decisions of these committees are formally reported 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 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 Risk Committee's** primary objective is to consider the strategic risks facing the College and the actions proposed to mitigate these risks.

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

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

**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 Management 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 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 & Rector, 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 & Rector, as chief executive, as advised by the Management 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: Accounting for Further and Higher Education Institutions (SORP)* 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 & Rector 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 2011–12 who attended their Away Day in 2012. Back row: Professor Stephen Richardson, Mr Iain Conn, Mr Stewart Newton, Mr Philip Dilley, Lord Tugendhat, Professor Jeff Magee, Mr John Neilson, Professor Dermot Kelleher, Mr Muir Sanderson, Mr Paul Beaumont. Middle row: Ms Kate Owen, Professor Dorothy Griffiths, Professor Maggie Dallman, Professor Julia Higgins, Professor Sir Anthony Newman Taylor. Front row: Baroness Manningham-Buller, Sir Keith O'Nions, Ms Rachel Lomax.

## The Council

### Chair

- ▶ Baroness Manningham-Buller

### Co-opted External Members

- ▶ Mr I. Conn
- ▶ Mrs P. Couttie
- ▶ Mr P. Dilley
- ▶ Ms R. Lomax
- ▶ Mr J.H.M. Newsum
- ▶ Mr S. Newton
- ▶ Ms K. Owen
- ▶ Lord Tugendhat

### Ex-Officio

- ▶ President & Rector: Sir Keith O'Nions
- ▶ Deputy Rector: Professor S. Richardson
- ▶ Chief Financial Officer (Acting): Mr A. Murphy (until 31 October 2011)
- ▶ Chief Financial Officer: Mr M. Sanderson (from 1 November 2011)

### Senior Staff Representatives

- ▶ Professor D.K.H. Begg (until 17 February 2012)
- ▶ Professor M.J. Dallman
- ▶ Professor D. Griffiths (from 18 February 2012)
- ▶ Professor D. Kelleher (from 1 October 2012)
- ▶ Professor J. Magee
- ▶ Professor Sir Anthony Newman Taylor (until 30 September 2012)

### Elected Staff Member

- ▶ Professor J. Kramer

### President, Imperial College Union

- ▶ Mr S. Heath (until 31 July 2012)
- ▶ Mr P. Beaumont (from 1 August 2012)

### Clerk to the Court and Council

- ▶ Dr R.F. Eastwood (until 31 March 2012)
- ▶ Mr J.S. Neilson (from 1 May 2012)

## Audit Committee

### Chair

- ▶ Mrs P. Couttie

### Membership

- ▶ Ms R. Lomax
- ▶ Mr J. Newsum (until 10 February 2012)
- ▶ Mr S. Newton
- ▶ Ms K. Kantor (co-opted)

### Secretary

- ▶ Mr J.B. Hancock

## Development Board

### Chairman

- ▶ Sir Keith O'Nions

### Membership

- ▶ Mr Mah Yong Sun
- ▶ Mr C. Mistry
- ▶ Mr S. Murray (until January 2012)
- ▶ Professor W. Wong
- ▶ Mr D. Hinduja (from June 2012)
- ▶ Sir S. Robertson (from June 2012)
- ▶ Mrs S. Howard (from June 2012)
- ▶ Professor Lord Darzi
- ▶ Professor D. Gann
- ▶ Professor Sir Peter Knight
- ▶ Mr M. Sanderson (From November 2011)

### Secretary

- ▶ Mr T.E. Miller

## Endowment Board

### Chairman

- ▶ Mr S. Newton

### Membership

- ▶ Professor D.K.H. Begg
- ▶ Mr N. Moakes
- ▶ Mr J. Newsum
- ▶ Sir Keith O'Nions
- ▶ Professor S. Richardson

### Secretary

- ▶ Ms J. Soulieux

## Nominations Committee

### Chair

- ▶ Baroness Manningham-Buller

### Membership

- ▶ Mr J. Newsum (from 25 November 2011)
- ▶ Ms K. Owen
- ▶ Lord Tugendhat
- ▶ Professor S. Richardson
- ▶ Mr M. Sanderson (from 1 November 2011)

### Secretary

- ▶ Dr R.F. Eastwood (until 31 March 2012)
- ▶ Mr J.S. Neilson (from 1 May 2012)

## Remuneration Committee

### Chair

- ▶ Baroness Manningham-Buller

### Membership

- ▶ Mr J. Newsum (from 25 November 2011)
- ▶ Ms K. Owen
- ▶ Lord Tugendhat

### Secretary

- ▶ Ms L. Lindsay

## Risk Committee

### Chair

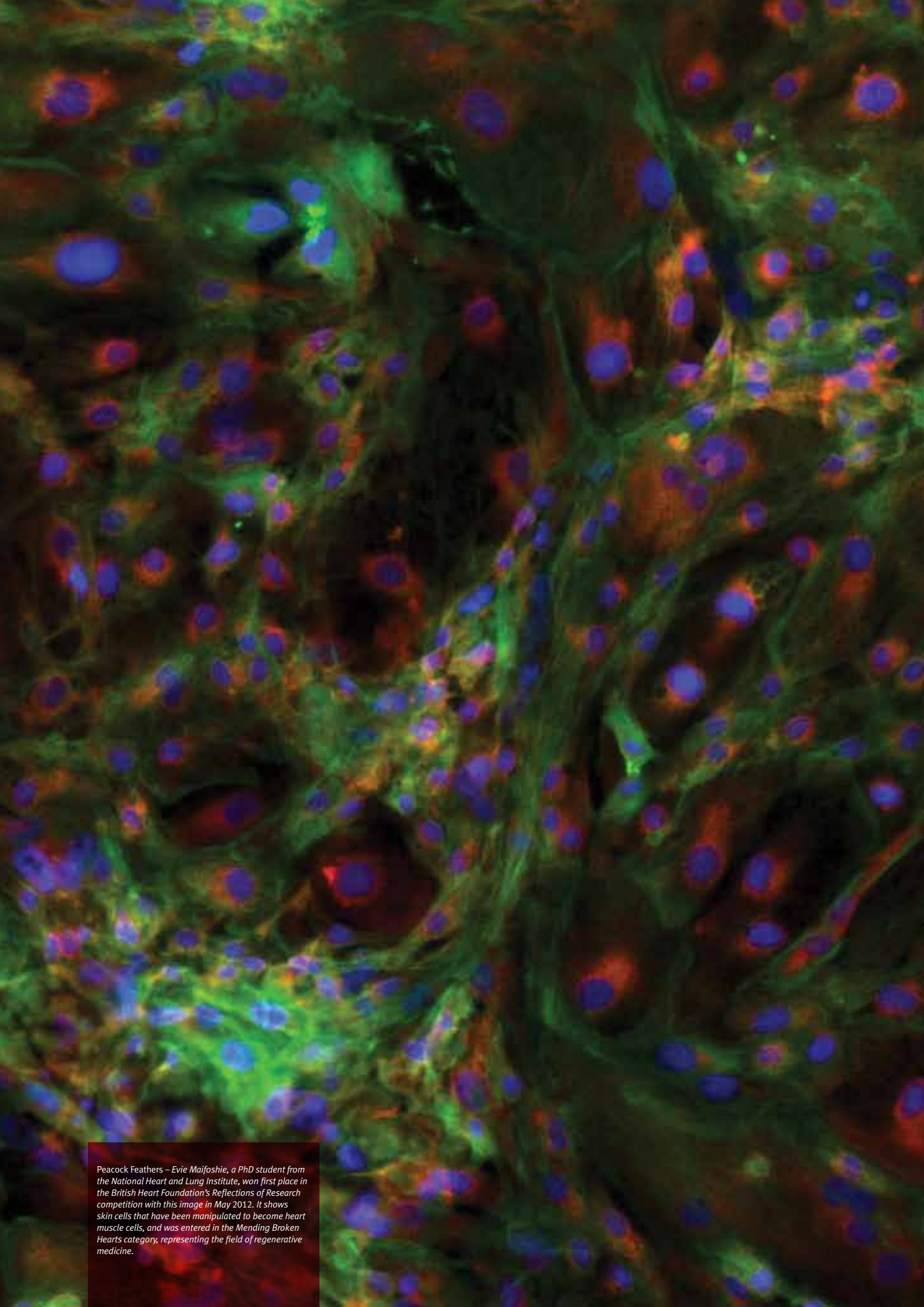
- ▶ Sir Rob Margetts (until 11 June 2012)
- ▶ Ms R. Lomax (from 12 June 2012)

### Membership

- ▶ Dr J. Groom
- ▶ Professor Dame Julia Higgins
- ▶ Ms. R Lomax (until 11 June 2012)
- ▶ Mr J. Newsum
- ▶ Mr S. Newton
- ▶ President & Rector: Sir Keith O'Nions
- ▶ Deputy Rector: Professor S. Richardson
- ▶ Chief Financial Officer: Mr M. Sanderson (from 1 November 2011)
- ▶ ICU President: Mr S. Heath (until 31 July 2012)
- ▶ ICU President: Mr P. Beaumont (from 1 August 2012)

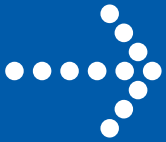
### Secretary

- ▶ Ms J. Soulieux



Peacock Feathers – Evie Maifoshie, a PhD student from the National Heart and Lung Institute, won first place in the British Heart Foundation's Reflections of Research competition with this image in May 2012. It shows skin cells that have been manipulated to become heart muscle cells, and was entered in the Mending Broken Hearts category, representing the field of regenerative medicine.

# Financial year 2011–12





# Independent auditors' report

## Independent auditors' report to the Council of Imperial College London

We have audited the Group and College financial statements (the 'financial statements') of Imperial College London for the year ended 31 July 2012, which comprise the Consolidated Income and Expenditure Account, the Consolidated and College Balance Sheets, the Consolidated Cash Flow Statement, the Statement of Consolidated Total Recognised Gains and Losses and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

## 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 International Standards on Auditing (UK and 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 of Imperial College London, as a body in accordance with the Charters and Statutes of the College, 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.

## Scope of the audit of the financial statements

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's and College'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 and Accounts to identify material inconsistencies with the audited financial statements. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

## Opinion on financial statements

In our opinion the financial statements:

- give a true and fair view of the state of the Group's and the College's affairs as at 31 July 2012 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 the requirements of the United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the *Statement of Recommended Practice: Accounting for Further and Higher Education*.

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

In our opinion, in all material respects:

- funds from whatever source administered by the College 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 College'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.

## Matters on which we are required to report by exception

We have nothing to report in respect of the following:

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 statement of internal control (included as part of the Corporate Governance Statement) is inconsistent with our knowledge of the College and Group.

PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors  
London  
23 November 2012

# Consolidated income and expenditure account

For the year ended 31 July 2012

	Note	2012 £m	2011 £m
<b>Income</b>			
Funding Council grants	1	172.4	168.6
Academic fees and support grants	2	163.1	137.9
Research grants and contracts	3	313.9	299.2
Other operating income	4	108.1	93.7
Endowment and investment income	5	8.1	5.6
<b>Total income</b>		<b>765.6</b>	<b>705.0</b>
Less: share of income from joint ventures		(0.4)	(0.8)
<b>Net income</b>		<b>765.2</b>	<b>704.2</b>
<b>Expenditure</b>			
Staff costs	6	373.9	365.0
Depreciation	9	52.0	45.9
Other operating expenses	7	266.4	243.2
Interest and other finance costs	8	9.7	6.3
<b>Total expenditure</b>	9	<b>702.0</b>	<b>660.4</b>
<b>Surplus on ordinary activities</b>		<b>63.2</b>	<b>43.8</b>
Share of results in joint ventures and associates		(2.9)	(1.8)
Minority interest	29	-	1.2
<b>Surplus before exceptional items</b>		<b>60.3</b>	<b>43.2</b>
<b>Exceptional items</b>			
Exceptional income from sale of fixed assets	30	0.5	18.2
Exceptional profit on deemed disposal of interests in group undertakings	30	-	32.7
<b>Surplus after exceptional items</b>		<b>60.8</b>	<b>94.1</b>
Transfer from accumulated income within endowments	14	0.5	0.6
<b>Surplus for the year retained within general reserves</b>		<b>61.3</b>	<b>94.7</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 2012

Surplus after exceptional items	<b>60.8</b>	94.1
Realisation of revaluation gains on fixed asset investments sold in the year	<b>1.8</b>	(0.5)
<b>Historical cost surplus for the year before tax</b>	<b>62.6</b>	93.6
<b>Historical cost surplus for the year after taxation</b>	<b>62.6</b>	93.6

# Balance sheets

as at 31 July 2012

	Note	Consolidated		College	
		2012 £m	2011 £m	2012 £m	2011 £m
<b>Fixed assets</b>					
Tangible assets	11	928.3	830.4	909.0	818.3
Investments	12, 28	99.6	89.4	55.7	40.0
Investments in joint ventures:					
Share of gross assets	13	3.1	0.6	–	–
Share of gross liabilities	13	(0.6)	(0.4)	–	–
		<b>1,030.4</b>	<b>920.0</b>	<b>964.7</b>	<b>858.3</b>
<b>Endowment asset investments</b>	14	<b>79.1</b>	<b>75.6</b>	<b>79.1</b>	<b>75.1</b>
<b>Current assets</b>					
Stocks		0.5	0.4	0.3	0.2
Debtors	15	128.2	130.6	141.8	139.6
Investments and short-term deposits	26	165.0	115.0	165.0	115.0
Cash at bank and in hand	26	135.8	128.2	133.4	123.8
		<b>429.5</b>	<b>374.2</b>	<b>440.5</b>	<b>378.6</b>
<b>Creditors: amounts falling due within one year</b>	16	<b>(365.5)</b>	<b>(334.9)</b>	<b>(364.3)</b>	<b>(334.4)</b>
<b>Net current assets / (liabilities)</b>		<b>64.0</b>	<b>39.3</b>	<b>76.2</b>	<b>44.2</b>
<b>Total assets less current liabilities</b>		<b>1,173.5</b>	<b>1,034.9</b>	<b>1,120.0</b>	<b>977.6</b>
<b>Creditors: amounts falling due after more than one year</b>	17	<b>(233.0)</b>	<b>(159.7)</b>	<b>(233.0)</b>	<b>(159.7)</b>
<b>Provisions for liabilities and charges</b>	18	<b>(32.1)</b>	<b>(32.0)</b>	<b>(32.1)</b>	<b>(32.0)</b>
<b>Total net assets</b>		<b>908.4</b>	<b>843.2</b>	<b>854.9</b>	<b>785.9</b>



	Note	Consolidated		College	
		2012 £m	2011 £m	2012 £m	2011 £m
Represented by:					
<b>Deferred capital grants</b>	19	<b>404.6</b>	405.1	<b>402.1</b>	402.4
<b>Endowments</b>					
Expendable	20	<b>25.0</b>	23.2	<b>25.0</b>	23.0
Permanent	20	<b>54.1</b>	52.4	<b>54.1</b>	52.1
		<b>79.1</b>	75.6	<b>79.1</b>	75.1
<b>Reserves</b>					
Revaluation reserve	22	<b>6.6</b>	7.2	<b>6.5</b>	7.2
General income and expenditure reserve	21,22	<b>418.1</b>	355.3	<b>367.2</b>	301.2
		<b>424.7</b>	362.5	<b>373.7</b>	308.4
<b>Total funds</b>		<b>908.4</b>	843.2	<b>854.9</b>	785.9

The financial statements on pages 39 to 66 were approved by the Council on 23 November 2012 and signed on their behalf by:

Baroness Manningham-Buller, Chair

Sir Keith O’Nions, President & Rector

Mr Muir Sanderson, Chief Financial Officer

# Consolidated cash flow statement

For the year ended 31 July 2012

42

	Note	2012 £m	2011 £m
<b>Net cash inflow from operating activities</b>	24	<b>121.6</b>	<b>120.1</b>
<b>Returns on investments and servicing of finance</b>			
Income received from endowments		1.4	1.1
Income received from short-term investments		3.8	3.7
Income received from fixed asset investments		–	0.5
Other interest received		0.3	0.6
Interest paid		(5.8)	(5.8)
Interest element of finance lease payments		(3.3)	–
		<b>(3.6)</b>	<b>0.1</b>
<b>Capital expenditure and financial investment</b>			
Payments to acquire tangible assets		(75.1)	(75.2)
Purchase of fixed asset investments		(15.5)	(16.6)
Acquisition of endowment assets		(5.3)	(10.8)
Total payments to acquire fixed and endowment asset investments		<b>(95.9)</b>	<b>(102.6)</b>
Receipts from disposal of tangible assets		0.5	21.6
Receipts from disposal of fixed asset investments		11.9	3.1
Receipts from disposal of endowment assets		13.4	2.5
Deferred capital grants received		29.3	32.9
Endowments received		1.9	9.6
		<b>(38.9)</b>	<b>(32.9)</b>
<b>Acquisitions and disposals</b>			
Payments to acquire an associate / joint venture		(2.8)	(0.8)
Receipts from disposal of a subsidiary		–	5.6
Cash transferred on disposal of a subsidiary		–	(8.8)
Receipts from disposal of an associate		–	0.6
		<b>(2.8)</b>	<b>(3.4)</b>
<b>Management of liquid resources</b>		<b>(50.0)</b>	<b>(41.6)</b>
<b>Financing</b>			
Net mortgages and loans repaid		(5.8)	(5.8)
Capital element of finance lease repayments		(0.4)	–
		<b>(6.2)</b>	<b>(5.8)</b>
<b>Increase in net cash</b>	26	<b>20.1</b>	<b>36.5</b>

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

For the year ended 31 July 2012

	Note	2012 £m	2011 £m
Increase in cash in the period		20.1	36.5
Increase in short-term investments		50.0	35.4
Decrease in loan balances		5.8	5.8
Increase in lease balances		(74.6)	–
Change in net funds		<b>1.3</b>	<b>77.7</b>
Net funds at 1 August		<b>95.0</b>	<b>17.3</b>
Net funds at 31 July	26	<b>96.3</b>	<b>95.0</b>

# Statement of consolidated total recognised gains and losses

For the year ended 31 July 2012

	Note	2012 £m	2011 £m
<b>Surplus after exceptional items</b>		<b>60.8</b>	<b>94.1</b>
Increase in market value of endowment asset investments	14, 20	2.5	7.4
Net endowment additions	14, 20	1.5	10.0
Revaluation of investments within fixed assets	22	1.2	2.7
Movement in share based payment reserve		-	(0.1)
Purchase of treasury shares		(0.3)	-
<b>Total recognised gains relating to the year</b>		<b>65.7</b>	<b>114.1</b>
Opening reserves and endowments		438.1	
<b>Total recognised gains relating to the year</b>		<b>65.7</b>	
<b>Closing reserves and endowments</b>		<b>503.8</b>	



# Statement of principal accounting policies

## 1. Accounting convention

The financial statements have been prepared 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.

## 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 tangible 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 31 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, primarily 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.

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\$ 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. 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.

## 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). Buildings which are still under construction are not depreciated. 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.

Buildings acquired on integration of previously independent institutions are brought into the balance sheet at fair value (market value where ascertainable, otherwise depreciated replacement cost) and depreciated over their remaining expected useful lives. An amount equivalent to the fair value of assets so acquired is credited to deferred capital grants and released in the same manner as other such grants.

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.

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).

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

<b>1. Funding Council grants</b>	Note	<b>2012 £m</b>	<b>2011 £m</b>
Recurrent – teaching		<b>52.8</b>	54.8
Recurrent – research		<b>96.4</b>	94.1
Higher Education Innovation Fund (HEIF)		<b>1.8</b>	1.3
Project capital allocations		<b>15.4</b>	25.4
Other specific grants		<b>1.6</b>	2.3
<hr/>			
Grants from Higher Education Funding Council for England (HEFCE)		<b>168.0</b>	177.9
Joint Information Systems Committee (JISC)		<b>0.1</b>	0.1
Transferred to deferred capital grants in the year			
Buildings	19	<b>(5.8)</b>	(17.6)
Equipment	19	<b>(8.9)</b>	(7.8)
Deferred capital grants released in the year			
Buildings	19	<b>13.9</b>	11.6
Equipment	19	<b>5.1</b>	4.4
<hr/>		<b>172.4</b>	168.6

<b>2. Academic fees and support grants</b>	<b>Registered student numbers</b>		<b>2012 £m</b>	<b>2011 £m</b>
	<b>31 Dec 2011</b>	<b>31 Dec 2010</b>		
Full-time home and European Union students	<b>10,041</b>	9,795	<b>34.8</b>	32.9
Full-time overseas students	<b>4,301</b>	4,169	<b>96.3</b>	88.2
Part-time students	<b>1,229</b>	1,251	<b>6.6</b>	6.0
Research training support grants			<b>20.4</b>	7.0
Short course fees			<b>5.0</b>	3.8
<hr/>			<b>163.1</b>	137.9

Research training support grants include £3.4 million (£3.3 million in 2011) of tuition fees paid in respect of full-time Home and European Union students.

Following guidance issued to the sector during the year, certain research studentships funded by research training support grants, totalling £13.7 million, have now been included in both income and expenditure. Previously these grants (£13.7 million in 2011) were considered agency payments.

Total numbers of full-time and part time students are 15,571 in 2012 and 15,215 in 2011 (excluding those on research training support grants and short courses).



<b>3. Research grants and contracts</b>	<b>2012 £m</b>	<b>2011 £m</b>
UK research councils	102.4	102.7
UK government departments, local and health authorities	50.7	43.5
UK industry, commerce and public corporations	18.9	18.2
UK charities	66.5	68.7
UK other	0.9	0.9
European Commission	28.8	23.3
Other European Union and overseas	45.7	41.9
	<b>313.9</b>	<b>299.2</b>
Research income relating to the direct expenditure incurred during the year	259.2	244.0
Contributions towards overhead costs	54.7	55.2
	<b>313.9</b>	<b>299.2</b>

Total research income excludes £11.0 million (£8.4 million in 2011) deferred capital grants received in 2012 but includes £9.5 million (£8.5 million in 2011) 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 2012 includes £13.1 million (2011: £13.1 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. Of this total awarded, £12.6 million (2011: £10.1 million) had been received as at 31 July from the Funder. A total of £11.4 million has been spent and recognised as income for the project to date (£3.8 million by the College, and £7.6 million by unrelated third party partners). Of the amounts recorded as income to date by College £1.0 million was recognised in the year to 31 July 2012 (2011: £1.0 million).

<b>4. Other operating income</b>	<b>2012 £m</b>	<b>2011 £m</b>
Health and hospital authorities	17.2	16.9
Consultancies and scientific services	11.4	9.6
Donations	6.1	3.6
Residences, catering and conferences	36.8	31.1
Income from exploitation of intellectual property	0.6	1.0
Rents receivable	5.8	5.4
Commissions and fees	1.9	1.7
Other departmental income	13.4	9.0
Released from deferred capital grants on land and buildings	1.7	1.7
Released from deferred capital grants on equipment	0.1	0.1
Other income	13.1	13.6
	<b>108.1</b>	<b>93.7</b>

<b>5. Endowment and investment income</b>	Note	<b>2012 £m</b>	<b>2011 £m</b>
Income from expendable endowment investments	20	0.4	0.4
Income from permanent endowment investments	20	1.0	0.8
Income from long-term investments		–	0.5
Income from short-term investments		6.5	3.4
Other interest receivable		0.2	0.5
		<b>8.1</b>	<b>5.6</b>

## Notes to the accounts

<b>6. Staff</b>	Note	<b>2012 £m</b>	2011 £m
Staff costs			
Wages and salaries		<b>308.4</b>	301.2
Social security costs		<b>27.3</b>	25.9
Other pension costs	34	<b>37.1</b>	36.5
		<b>372.8</b>	363.6
Restructuring costs		<b>1.1</b>	1.4
		<b>373.9</b>	365.0
		<b>2012 £000</b>	2011 £000
Emoluments of the President & Rector			
Remuneration		<b>302</b>	296
Social security costs		<b>41</b>	38
Other		<b>21</b>	20
		<b>364</b>	354
Employer's pension contributions		–	–
		<b>364</b>	354

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 (two in 2012, three in 2011);

	<b>2012 £000</b>	2011 £000
Payments in respect of loss of office	<b>90</b>	105
Benefits in kind	–	–
	<b>90</b>	105

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>2012 Number</b>	2011 Number	<b>2012 Number</b>	2011 Number
Staff numbers by major category				
Academic and Research	<b>3,441</b>	3,426	<b>3,667</b>	3,594
Professional services	<b>2,220</b>	2,181	<b>2,438</b>	2,366
Technical services	<b>523</b>	568	<b>543</b>	584
Operational services	<b>424</b>	542	<b>629</b>	608
Learning & Teaching	<b>40</b>	19	<b>44</b>	21
	<b>6,648</b>	6,736	<b>7,321</b>	7,173

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	
	2012 Number	2011 Number	2012 Number	2011 Number
£100,000–£109,999	66	69	60	57
£110,000–£119,999	51	36	46	32
£120,000–£129,999	30	34	28	30
£130,000–£139,999	35	29	32	29
£140,000–£149,999	31	29	31	29
£150,000–£159,999	17	23	22	23
£160,000–£169,999	21	15	14	14
£170,000–£179,999	15	20	16	19
£180,000–£189,999	12	10	12	11
£190,000–£199,999	11	9	11	9
£200,000–£209,999	5	2	4	2
£210,000–£219,999	3	5	3	5
£220,000–£229,999	2	2	3	1
£230,000–£239,999	2	3	1	2
£240,000–£249,999	2	1	2	2
£250,000–£259,999	1	2	1	1
£270,000–£279,999	–	3	–	3
£280,000–£289,999	2	–	2	–
£290,000–£299,999	–	2	1	1
£300,000–£309,999	3	1	2	1
£310,000–£319,999	–	1	–	1
£320,000–£329,999	1	–	–	–
£380,000–£389,999	1	–	–	–
£400,000–£409,999	–	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.

7. Other operating expenses	2012 £m	2011 £m
Research grants and contracts	105.4	93.4
Consultancies and scientific services	3.7	1.5
Short courses	2.4	1.6
Expenditure in academic departments	56.5	36.0
Residences, catering and conferences	14.6	17.2
Central support services	16.2	16.7
Central fellowships, scholarships and prizes	9.1	8.3
Books, periodicals and other library expenditure	6.9	6.6
Facilities and maintenance of premises	43.5	40.1
Auditors' remuneration	0.2	0.2
Auditors' fees in respect of non-audit services	–	–
Other, including Imperial College Union	7.9	21.6
	<b>266.4</b>	<b>243.2</b>

Included within expenditure in academic departments are certain research studentships funded by research training support grants (see note 2).



## Notes to the accounts

<b>8. Interest and other finance costs</b>	<b>2012 £m</b>	<b>2011 £m</b>
Bank and other loans wholly repayable after more than one year	<b>5.8</b>	5.8
Finance lease interest	<b>3.3</b>	–
Other financing costs	<b>0.6</b>	0.5
	<b>9.7</b>	6.3

<b>9. Analysis of expenditure by activity</b>	Staff costs £m	Depreciation £m	Other operating expenses £m	Interest and other finance costs £m	<b>2012 Total £m</b>	<b>2011 Total £m</b>
Academic departments	158.0	1.5	58.9	0.1	<b>218.5</b>	190.3
Academic services:						
Libraries and information services	3.7	–	6.9	–	<b>10.6</b>	10.5
Central computer and computer networks	10.4	0.3	5.4	–	<b>16.1</b>	16.0
Other	3.7	–	1.2	–	<b>4.9</b>	10.7
Total academic services	17.8	0.3	13.5	–	<b>31.6</b>	37.2
Research grants and contracts	144.3	9.5	105.4	–	<b>259.2</b>	244.0
Residences, catering and conferences	8.7	4.7	14.6	–	<b>28.0</b>	29.3
Premises	13.4	35.5	43.5	–	<b>92.4</b>	81.9
Administration and central services:						
Central administration	18.1	0.1	5.3	–	<b>23.5</b>	21.4
General educational expenditure	2.6	–	12.0	–	<b>14.6</b>	13.7
Staff and student facilities	4.9	0.4	4.7	–	<b>10.0</b>	10.3
Total administration and central services	25.6	0.5	22.0	–	<b>48.1</b>	45.4
Other expenditure:						
Consultancies and scientific services	4.4	–	3.7	–	<b>8.1</b>	5.7
Other, including restructuring costs	1.7	–	4.8	9.6	<b>16.1</b>	26.6
Total other expenditure	6.1	–	8.5	9.6	<b>24.2</b>	32.3
	<b>373.9</b>	<b>52.0</b>	<b>266.4</b>	<b>9.7</b>	<b>702.0</b>	<b>660.4</b>

The depreciation charge has been funded by:	Note	£m
Deferred capital grants released	19	30.4
General income		21.6
Total depreciation charge		52.0

<b>10. Segmental reporting</b>	Segment total income £m	Inter- segment income £m	Income from third parties £m	Surplus/(deficit) before tax, minority interest and exceptional items £m	Total assets £m	Net assets £m
<b>Year ended 31 July 2012</b>						
Education and research	748.6	–	748.6	53.4	1,270.4	753.4
Endowment	16.6	–	16.6	6.9	268.5	155.0
	765.2	–	765.2	60.3	1,538.9	908.4
<b>Year ended 31 July 2011</b>						
Education and research	694.4	0.3	694.1	41.6	1,137.2	640.3
Endowment	8.2	0.1	8.1	4.1	173.9	144.2
Imperial Innovations Group plc	2.3	0.2	2.1	(3.7)	58.7	58.7
	704.9	0.6	704.3	42.0	1,369.8	843.2

The Education and research segment represents the core academic activities of scholarship, education and research.

The Endowment, formerly College Fund, 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.

Imperial Innovations Group plc ('Innovations'), is an intellectual property, incubation and investment undertaking developed to provide commercialisation and business support services to the College and external organisations. For the purposes of its individual financial statements it reports as an AIM listed group under International Financial Reporting Standards. Figures included in the segmental analysis above, however, have been prepared on the basis of UK Generally Accepted Accounting Principles to comply with the consolidation requirements of the *Statement of Recommended Practice: Accounting for Further and Higher Education Institutions (SORP)* and other applicable UK accounting standards. The College's investment in 'Innovations' is equity accounted as an associated undertaking.

# 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 2011	463.3	447.4	189.0	111.3	1,211.0
Additions	3.1	108.7	16.1	23.6	151.5
Transfers	2.6	93.5	11.3	(107.4)	–
Disposals	–	(0.1)	(2.3)	(1.6)	(4.0)
At 31 July 2012	<b>469.0</b>	<b>649.5</b>	<b>214.1</b>	<b>25.9</b>	<b>1,358.5</b>
<b>Depreciation</b>					
At 1 August 2011	104.9	136.5	139.2	–	380.6
Charge for year	12.9	22.2	16.9	–	52.0
Eliminated on disposals	–	(0.1)	(2.3)	–	(2.4)
At 31 July 2012	<b>117.8</b>	<b>158.6</b>	<b>153.8</b>	<b>–</b>	<b>430.2</b>
<b>Net book value</b>					
At 31 July 2012	<b>351.2</b>	<b>490.9</b>	<b>60.3</b>	<b>25.9</b>	<b>928.3</b>
At 1 August 2011	358.4	310.9	49.8	111.3	830.4
	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 2011	463.3	432.5	186.9	111.3	1,194.0
Additions	3.1	100.9	16.1	23.5	143.6
Transfers	2.6	93.5	11.3	(107.4)	–
Disposals	–	(0.1)	(2.3)	(1.6)	(4.0)
At 31 July 2012	<b>469.0</b>	<b>626.8</b>	<b>212.0</b>	<b>25.8</b>	<b>1,333.6</b>
<b>Depreciation</b>					
At 1 August 2011	104.9	133.5	137.3	–	375.7
Charge for year	12.9	21.5	16.8	–	51.2
Eliminated on disposals	–	(0.1)	(2.2)	–	(2.3)
At 31 July 2012	<b>117.8</b>	<b>154.9</b>	<b>151.9</b>	<b>–</b>	<b>424.6</b>
<b>Net book value</b>					
At 31 July 2012	<b>351.2</b>	<b>471.9</b>	<b>60.1</b>	<b>25.8</b>	<b>909.0</b>
At 1 August 2011	358.4	299.0	49.6	111.3	818.3
<b>Assets held under finance leases, capitalised and included in tangible fixed assets:</b>				<b>2012 £m</b>	<b>2011 £m</b>
Cost				76.7	1.7
Accumulated depreciation				(1.5)	(0.1)
Net book value				75.2	1.6



On 30 September 2011, the College sold its holdings in Winstanley 1 Ltd and Winstanley 2 Ltd (a company established to create 566 postgraduate student studio apartments) to Legal and General Pensions Ltd, an unrelated third party, for initial net proceeds totalling £18 million. A further estimated £9 million of contingent consideration is receivable upon completion of phase 2 of the property (see note 33). Prior to the sale, the College's interests were held in the consolidated financial statements at fair value within fixed and endowment asset investments.

As a corollary of the sale, the College entered into a long leasehold agreement with Legal and General Pensions Ltd, leasing the property developed by Winstanley 2 Ltd for a term of 45 years. The terms of the arrangement also provide the College with the benefit of a £1 option over the freehold at the end of the lease term. The College recognised a long leasehold asset and related finance lease in respect of this agreement in its 2011–12 financial statements.

The transitional rules set out in FRS 15 'Tangible Fixed Assets' have been applied on implementing FRS 15. Accordingly, the book values at implementation have been retained.

Included at cost within land and buildings for the College and Group as at 31 July 2012 is a heritage asset, being the nineteenth-century Queen's Tower, currently insured at a value of £10.1 million (2011: £9.8 million).

12. Investments	Note	Consolidated		College	
		2012 £m	2011 £m	2012 £m	2011 £m
Investment in subsidiary companies at cost		–	–	4.0	4.0
Investment in other associated undertakings		56.7	59.3	6.5	6.0
Other fixed asset investments	28	42.9	30.1	45.2	30.0
		99.6	89.4	55.7	40.0

As at 31 July 2012 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
<b>Joint ventures</b>		
Bio Nano Centre Ltd	Development of biomedical and nanotechnology-based products	50.0
Imperial West Limited	Commercial property services	50.0
<b>Associates</b>		
Imperial Innovations Group plc	Commercialisation of ideas and inventions	30.3
Imanova Ltd	Environmental consultancy and scientific services	25.0
GMEC Management Company Ltd	Promotion of collaborative biomedical research	20.0

At 31 July 2012 the College held a 49.9% in Woodlands 1 LLP, an entity formed to develop and let postgraduate student accommodation in the UK. This investment is included at valuation split between fixed asset investments (note 12) at 13.3% and endowment assets (note 14) at 36.6%. Although the College holds more than 20%, this holding is considered to be pure investment asset and is not equity accounted for as an associate.

All companies are registered in England.

# Notes to the accounts

## 13. Investment in joint ventures

At 31 July 2012 the College held a 50% share in both Imperial West Limited, a UK private limited company set up to achieve planning permissions at the College's Imperial West campus and Bio Nano Centre Ltd, a UK company limited by guarantee that specialises in the development of biomedical and nanotechnology-based products. These investments have been consolidated using the gross equity method.

## 14. Endowment asset investments

### Consolidated and College

	Balance 1 Aug 2011 £m	Disposals £m	Additions £m	Net expenditure from capital £m	Transfers between investments £m	Increase/ (decrease) in market value £m	Balance 31 July 2012 £m
UK equities	5.7	–	–	–	2.0	(0.9)	6.8
International equities	30.2	–	–	–	1.3	(0.6)	30.9
Absolute return investments	5.1	–	–	–	(5.0)	–	0.1
Associate property partnerships	15.8	–	–	–	(8.9)	3.9	10.8
Investment property	0.9	–	–	–	(0.5)	0.1	0.5
Investment income receivable	0.2	–	–	–	–	–	0.2
Short term investments/cash	17.2	(0.3)	2.3	(0.5)	11.1	–	29.8
<b>Total College</b>	<b>75.1</b>	<b>(0.3)</b>	<b>2.3</b>	<b>(0.5)</b>	<b>–</b>	<b>2.5</b>	<b>79.1</b>
Endowments held by subsidiary undertakings:							
UK equities	0.4	–	(0.4)	–	–	–	–
Short term investments/cash	0.1	–	(0.1)	–	–	–	–
<b>Total consolidated</b>	<b>75.6</b>	<b>(0.3)</b>	<b>1.8</b>	<b>(0.5)</b>	<b>–</b>	<b>2.5</b>	<b>79.1</b>
Fixed interest and equities at cost	66.5						72.7

## 15. Debtors

### Consolidated

### College

	2012 £m	2011 £m	2012 £m	2011 £m
<b>Amounts falling due within one year</b>				
Amounts due on research grants and contracts				
Debtors	27.4	22.0	27.4	22.0
Work in progress	40.0	46.9	40.0	46.9
Other debtors	42.7	48.6	39.1	46.4
Prepayments and accrued income	18.3	14.3	17.9	13.9
Amounts owed by group undertakings	–	–	17.6	11.6
Provision for bad debts	(0.2)	(1.2)	(0.2)	(1.2)
	<b>128.2</b>	<b>130.6</b>	<b>141.8</b>	<b>139.6</b>

Included within other debtors are invoices totalling £24.1 million (£25.8 million in 2011) 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 (see note 16).

16. Creditors: amounts falling due within one year	Consolidated		College	
	2012 £m	2011 £m	2012 £m	2011 £m
Bank overdraft	–	–	17.4	12.4
Bank loans	5.8	5.8	5.8	5.8
Obligations under finance leases	0.5	–	0.5	–
Deferred lease premiums	0.1	–	0.1	–
Research payments received on account	182.8	166.2	182.8	166.2
Creditors	20.0	17.1	16.5	15.1
Social security and other taxation payable	9.3	10.2	9.3	10.2
Accruals and deferred income	147.0	135.6	129.8	120.9
Amounts owed to group undertakings	–	–	2.1	3.8
	<b>365.5</b>	<b>334.9</b>	<b>364.3</b>	<b>334.4</b>

17. Creditors: amounts falling due after more than one year	Consolidated		College	
	2012 £m	2011 £m	2012 £m	2011 £m
Bank loans	153.9	159.7	153.9	159.7
Obligations under finance leases	74.1	–	74.1	–
Deferred lease premiums	5.0	–	5.0	–
	<b>233.0</b>	<b>159.7</b>	<b>233.0</b>	<b>159.7</b>

Finance lease details are contained in note 11.

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

	Bank loans £m	Finance leases £m	2012 £m	2011 £m
Less than one year	5.8	0.5	6.3	5.8
In more than one year but no more than two years	5.8	0.5	6.3	5.8
In more than two years but no more than five years	17.3	1.6	18.9	17.3
In more than five years	130.8	72.0	202.8	136.6
	<b>159.7</b>	<b>74.6</b>	<b>234.3</b>	<b>165.5</b>
Less than one year	(5.8)	(0.5)	(6.3)	(5.8)
	<b>153.9</b>	<b>74.1</b>	<b>228.0</b>	<b>159.7</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 and charges</b>	Restructuring provision £m	Decommissioning of engineering facility £m	<b>Total £m</b>
<b>Consolidated and College</b>			
At 1 August 2011	2.3	29.7	32.0
Provided in the year	0.5	3.4	3.9
Utilised in the year	(1.7)	(2.3)	(4.0)
Written back in the year	(0.4)	–	(0.4)
Unwinding of the discount	–	0.6	0.6
At 31 July 2012	<b>0.7</b>	<b>31.4</b>	<b>32.1</b>

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

During the year, as part of its annual review of the decommissioning provision, the College amended the discount rate to align it with the College-wide new discount rate policy leading to the increase in the provision of £3.4 million.

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<b>19. Deferred capital grants</b>	Note	<b>Consolidated</b>			<b>College</b>
		HEFCE and JISC grants £m	Other grants and benefactions £m	<b>Total £m</b>	<b>Total £m</b>
<b>At 1 August 2011</b>					
Buildings		284.9	87.8	372.7	370.1
Equipment		21.1	11.3	32.4	32.3
Total		306.0	99.1	405.1	402.4
<b>Cash receivable</b>					
Buildings—specific funding (including transfers)		5.8	4.3	10.1	10.1
Equipment—specific funding		8.9	11.0	19.9	19.9
Total		14.7	15.3	30.0	30.0
<b>Eliminated on disposals</b>					
Buildings—specific funding		–	–	–	0.1
Equipment—specific funding		–	(0.1)	(0.1)	(0.2)
Total		–	(0.1)	(0.1)	(0.1)
<b>Released to income and expenditure account</b>					
Buildings		(13.9)	(4.7)	(18.6)	(18.4)
Equipment		(5.1)	(6.7)	(11.8)	(11.8)
Total	9	(19.0)	(11.4)	(30.4)	(30.2)
<b>At 31 July 2012</b>					
Buildings		<b>276.8</b>	<b>87.4</b>	<b>364.2</b>	<b>361.9</b>
Equipment		<b>24.9</b>	<b>15.5</b>	<b>40.4</b>	<b>40.2</b>
Total		<b>301.7</b>	<b>102.9</b>	<b>404.6</b>	<b>402.1</b>

**20. Endowments****Consolidated**

	Unrestricted permanent £m	Restricted permanent £m	Total permanent £m	Restricted expendable £m	<b>2012 Total £m</b>	2011 Total £m
At 1 August						
Capital	9.7	41.8	51.5	30.8	82.3	64.9
Accumulated income	(0.2)	1.1	0.9	(7.6)	(6.7)	(6.1)
	9.5	42.9	52.4	23.2	75.6	58.8
New endowments / transfers	–	–	–	1.5	1.5	10.0
Investment income	0.2	0.8	1.0	0.4	1.4	1.2
Expenditure	(0.1)	(0.9)	(1.0)	(0.9)	(1.9)	(1.8)
	0.1	(0.1)	–	(0.5)	(0.5)	(0.6)
Increase in market value	0.4	1.3	1.7	0.8	2.5	7.4
At 31 July	<b>10.0</b>	<b>44.1</b>	<b>54.1</b>	<b>25.0</b>	<b>79.1</b>	<b>75.6</b>
Represented by:						
Capital	10.1	43.1	53.2	33.1	86.3	82.3
Accumulated income	(0.1)	1.0	0.9	(8.1)	(7.2)	(6.7)
	<b>10.0</b>	<b>44.1</b>	<b>54.1</b>	<b>25.0</b>	<b>79.1</b>	<b>75.6</b>

**College**

	Unrestricted permanent £m	Restricted permanent £m	Total permanent £m	Restricted expendable £m	<b>2012 Total £m</b>	2011 Total £m
At 1 August						
Capital	9.7	41.5	51.2	30.6	81.8	64.9
Accumulated income	(0.2)	1.1	0.9	(7.6)	(6.7)	(6.1)
	9.5	42.6	52.1	23.0	75.1	58.8
New endowments / transfers	–	0.3	0.3	1.7	2.0	9.6
Investment income	0.2	0.8	1.0	0.4	1.4	1.2
Expenditure	(0.1)	(0.9)	(1.0)	(0.9)	(1.9)	(1.8)
	0.1	(0.1)	–	(0.5)	(0.5)	(0.6)
Increase in market value	0.4	1.3	1.7	0.8	2.5	7.3
At 31 July	<b>10.0</b>	<b>44.1</b>	<b>54.1</b>	<b>25.0</b>	<b>79.1</b>	<b>75.1</b>
Represented by:						
Capital	10.1	43.1	53.2	33.1	86.3	81.8
Accumulated income	(0.1)	1.0	0.9	(8.1)	(7.2)	(6.7)
	<b>10.0</b>	<b>44.1</b>	<b>54.1</b>	<b>25.0</b>	<b>79.1</b>	<b>75.1</b>

Included within endowments are a number of permanent funds with a deficit of accumulated income as at 31 July 2012. Within unrestricted permanent endowments these comprise two funds with a combined deficit balance of £0.2 million (2011: three funds with a deficit totalling £0.2 million). Within restricted permanent endowments there are 49 individual funds with a total combined deficit of £1.6 million (2011: 46 funds with a total combined deficit of £1.2 million). The College monitors funds in a deficit position however, due to the nature of the underlying investments, which do not necessarily depend on generating the required income but instead target a total return, these funds are permitted to spend some of the capital growth.

# Notes to the accounts

<b>21. Income and expenditure account</b>	<b>Consolidated £m</b>	<b>College £m</b>
Balance at 1 August 2011	355.3	301.2
Surplus after tax and minority interest	61.3	64.2
Transfers between reserves	1.5	1.8
<b>Balance at 31 July 2012</b>	<b>418.1</b>	<b>367.2</b>

<b>22. Statement of movements on reserves</b>	<b>Consolidated</b>				
	Balance 1 Aug 2011 £m	Surplus for the year £m	Transfer between reserves £m	Movement in year £m	Balance 31 July 2012 £m
Specific non-discretionary reserves					
Imperial College Union funds	1.7	–	0.2	–	1.9
Subsidiary and associate companies' reserves	52.4	–	(3.1)	(0.3)	49.0
	54.1	–	(2.9)	(0.3)	50.9
General income and expenditure reserve	301.2	61.3	4.7	–	367.2
Total general reserves	355.3	61.3	1.8	(0.3)	418.1
Revaluation reserve	7.2	–	(1.8)	1.2	6.6
Total reserves	362.5	61.3	–	0.9	424.7

## 23. Related party transactions

For some years the College has maintained a Register of Interests of all governors, academic and academic related 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 2012 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 £11.4 million and received research grants and contracts amounting to £35.3 million from such parties. Research grants include £23.0 million from the Wellcome Trust where Baroness Manningham-Buller is a Governor, Mr Stewart Newton is a member of the Investment Committee and Mr Nick Moakes is Head of Public Markets and a Wellcome Trust Investment Committee member. 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. The College also received £2.3 million of research contract income from AWE ML where Professor Donal Bradley is a Co-Chair. Research contract income also includes £1.3 million from Rolls-Royce plc where Mr Iain Conn is a Non-Executive Director.

A number of College employees also hold positions in Imperial College Healthcare NHS Trust. Dr Rodney Eastwood is co-opted member of the Trust Board and Professor Maggie Dallman was a non-executive member of the Trust Board until December 2011. Mr Mark Davies, who is the CEO of Imperial College Healthcare NHS Trust, served as a member of the Management Board until January 2012. Purchased goods and services include £7.1 million and research grant income includes £4.5 million from 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 the Chief Executive of LMS Capital in which he has a significant shareholding. LMS Capital is a significant shareholder in Voreda's property fund. Voreda Capital is the joint venture partner in the College's Imperial West Limited joint venture.



<b>24. Reconciliation of consolidated operating surplus to net cash inflow from operating activities</b>	<b>2012 £m</b>	<b>2011 £m</b>
Surplus on ordinary activities	63.2	43.8
Depreciation	52.0	45.9
Deferred capital grants released to income	(30.4)	(26.2)
Endowment and investment income	(8.1)	(5.6)
Fair value loss on revaluation of fixed asset investments	–	0.6
Interest payable	9.7	6.3
Increase in stocks	(0.1)	–
Decrease/(Increase) in debtors	5.0	(11.3)
Increase in creditors	30.9	48.9
(Decrease)/Increase in provisions	(0.6)	17.7
<b>Net cash inflow from operating activities</b>	<b>121.6</b>	<b>120.1</b>

<b>25. Disposal of subsidiary undertaking</b>	Note	<b>Disposals 2012 £m</b>	<b>Disposals 2011 £m</b>
Tangible assets		–	0.1
Other fixed asset investments		–	50.4
Investments and short term deposits		–	6.2
Cash at bank and in hand		–	8.8
Working capital		–	(0.3)
Creditors falling due in more than one year		–	(1.6)
Minority interests	29	–	(31.5)
Surplus on disposal	30	–	32.8
		–	64.9
Retained interest in associate as at 24 January 2011		–	59.3
Net cash proceeds received by the Group in relation to disposal of subsidiaries		–	5.6
		–	64.9

On 24 January 2011 the College's subsidiary, Imperial Innovations plc ('Innovations'), raised net proceeds of £130 million from a two for three rights issue through which the company's total issued voting share capital increased to 99,651,035 shares from 59,790,621. The College did not take up its rights, instead selling warrants over them to an unrelated third party for net proceeds totalling £5.6 million (see note 30). As a consequence the College's percentage shareholding in the Innovations group fell from 50.4% to 30.3% and from 24 January 2011 the College's investment in Innovations has no longer been consolidated as a subsidiary in these financial statements. From that date the investment has instead been equity accounted for as an associate.

## Notes to the accounts

	Balance 1 Aug 2011 £m	Cash flow £m	Non-cash changes £m	Balance 31 Jul 2012 £m
<b>26. Analysis of changes in net funds</b>				
Cash at bank and in hand	128.2	7.6	–	135.8
Endowment assets	17.3	12.5	–	29.8
	145.5	20.1	–	165.6
Short-term investments	115.0	50.0	–	165.0
Debt due within one year	(5.8)	5.8	(5.8)	(5.8)
Debt due after one year	(159.7)	–	5.8	(153.9)
Finance leases due within one year	–	0.4	(0.9)	(0.5)
Finance leases due after one year	–	–	(74.1)	(74.1)
	95.0	76.3	(75.0)	96.3

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

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	2012 £000	2011 £000
<b>27. Access funds</b>		
Balance at start of the year	19	8
Funding Council grants	107	114
	126	122
Disbursements	(126)	(103)
Balance unspent at end of the year	–	19

Funding Council grants are available solely for students and the College acts only as a paying agent. The grants and related disbursements are therefore excluded from the income and expenditure account.

	Note	Balance 1 Aug 2011 £m	Movements in year £m	Balance 31 Jul 2012 £m
<b>28. Fixed asset investments</b>				
Subsidiary undertakings' investments		0.1	–	0.1
Other investments		30.0	12.8	42.8
Other fixed asset investments	12	30.1	12.8	42.9
Investments in associated undertakings		59.3	(2.6)	56.7
Fixed asset investments	12	89.4	10.2	99.6

	2012 £m	2011 £m
<b>29. Minority interest</b>		
Following Imperial Innovations Group plc rights issue in January 2011, the Group's percentage investment decreased from 50.4% to 30.3% (see note 30).		
Balance at 1 August	–	32.7
Profit/(loss) after tax and minority interest	–	(1.2)
Disposal of subsidiary	–	(31.5)
Balance at 31 July	–	–

<b>30. Exceptional items</b>	Note	<b>2012 £m</b>	<b>2011 £m</b>
Exceptional income from sale of fixed assets		<b>0.5</b>	<b>18.2</b>
Exceptional income from the deemed disposal of interest in a subsidiary undertaking	25	–	<b>32.8</b>
Exceptional loss from disposal of an associated undertaking		–	<b>(0.1)</b>
		<b>0.5</b>	<b>50.9</b>

In 2012, £0.5 million exceptional income arose from Imperial Innovations Group plc's ('Innovations') sale of holdings in certain investments.

Following the Innovations rights issue in January 2011, the Group's percentage investment decreased from 50.4% to 30.3%. The Group recorded a deemed profit of £27.2 million in respect of the disposal in addition to net cash proceeds of £5.6 million from the sale of warrants over its rights (see note 25).

On 1 March 2011 the College sold a 150-year lease over land at its Imperial West Site to a related party, Woodlands 1 LLP (currently accounted for within fixed asset and endowment asset investments – see note 12) for proceeds totalling £22.0 million. The profit on disposal realised within these financial statements totalled £18.2 million.

<b>31. Capital commitments</b>	<b>Consolidated and College</b>	
	<b>2012 £m</b>	<b>2011 £m</b>
Capital commitments for major building projects contracted at 31 July	<b>9.0</b>	<b>5.6</b>

### 32. Contingent assets and liabilities

Last year the College signed an agreement in favour of Woodlands 1 LLP to enter into a rental guarantee over 606 bedspaces at a postgraduate accommodation development on the Imperial West site in White City. This guarantee is for a minimum of 15 years from October 2012. The present value of the maximum potential liability to the College arising from this guarantee is estimated at approximately £66 million. The agreement is contingent on completion of the accommodation scheduled for before the start of the new academic year.

No amounts have been provided for as at 31 July 2012 in these financial statements in respect of this guarantee.

The College is involved in a number of legal cases. No material financial liabilities are anticipated.

### 33. Post balance sheet events

On 28 August 2012, the College received £8.8 million of contingent consideration on completion of phase 2 of Griffon Studios providing 114 additional postgraduate student studio apartments.

The College accordingly expects to recognise a long leasehold asset and related finance lease in respect of phase 2 in its 2012–13 financial statements.

On 29 August 2012 Woodlands 1 LLP achieved practical completion over 606 bedspaces at a postgraduate accommodation development on the Imperial West site in White City.

### 34. 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.

IC Consultants Ltd, a subsidiary of the College, operates a defined contribution pension schemes 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. USS has over 145,000 active members and as at 31 March 2012 the College had 3,227 active members participating in the scheme.

The assets of the scheme are held in a separate trustee-administered fund. At the latest available valuation as at 31 March 2011, which was carried out using the projected unit method, the market value of the assets of the scheme was £32,433.5 million and the value of the past service liabilities 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. The actuary also valued the scheme on a number of other bases as at the valuation date.

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 an 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%.

Since 31 March 2011 global investment markets have continued to fluctuate and at 31 March 2012 the actuary has estimated that the funding level under the new scheme specific funding regime had fallen from 92% to 77%. On the FRS 17 basis, using an AA bond discount rate of 4.9% per annum based on spot yields, the actuary estimated that the funding level at 31 March 2012 was 74%. An estimate of the funding level measured on a historic gilts basis at that date was approximately 56%. With effect from 1 October 2011, new joiners to the scheme will join the new revalued benefits section rather than the existing final salary section. This change will have an impact, expected to be positive, on the future funding levels.

The last formal triennial actuarial valuation took place as at 31 March 2011. It will incorporate allowance for scheme benefit changes and any changes the trustee makes to the underlying actuarial assumptions. The contribution rate will be reviewed as part of each valuation and may be reviewed more frequently. The total pension cost for the college was £26.1 million (2011:£25.8 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), a centralised defined benefit scheme for all eligible employees with the assets held in separate Trustee-administered funds.

The College has now 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. The results of the latest available valuation at 31 March 2004 concluded that the Scheme had accumulated a deficit of £3.3 billion as at 31 March 2004. However, after taking into account the changes in the benefit and contribution structure effective from 1 April 2008, the actuary reported that employer contributions could continue at the existing rate of 14% of pensionable pay. Up to 31 March 2008, employees paid contributions at the rate of 6% of pensionable pay. From 1 April 2008 employee contributions changed to a tiered scale from 5% up to 8.5% of their pensionable pay depending on total earnings

An FRS 17 valuation of the Scheme liability is carried out annually by the Scheme Actuary by updating the results of the full actuarial valuation. The valuation of the Scheme liability was performed as at 31 March 2012 and is contained in the Scheme Actuary report, which forms part of the annual NHS Pension Scheme (England and Wales) Resource Account, published annually. 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	<u>31 Mar 2011</u>
<b>Assumptions</b>	
<b>USS scheme</b>	
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)
<b>SAUL scheme</b>	
Investment return on liabilities:	<u>31 Mar 2011</u>
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 2012 by a qualified independent actuary.

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

<b>Assumptions</b>	<u>2012</u>	<u>2011</u>
Price inflation per annum	2.90%	3.60%
Salary inflation per annum	N/A	N/A
Rate of increase to pensions in payment at the 5% LPI rate	2.10%	2.80%
Rate used to discount scheme liabilities	3.90%	5.30%
RPI	2.90%	3.60%
Post retirement mortality assumption	PNxA00(b=yob)lc	PNxA00(b=yob)lc

	<b>Rate of return</b>		<b>Market value</b>	<b>Market value</b>
	<b>2012</b>	<b>2011</b>	<b>£m</b>	<b>£m</b>
<b>The assets in the scheme and the expected rates of return</b>				
Equities	6.30%	7.50%	<b>1.6</b>	1.4
Gilts	2.80%	4.00%	<b>0.9</b>	0.9
Corporate bonds	4.00%	5.30%	<b>3.8</b>	3.5
Insured annuity contracts	3.90%	5.30%	<b>0.1</b>	0.2
Cash	0.50%	0.50%	<b>0.1</b>	0.1
<b>Total fair value of assets</b>			<b>6.5</b>	6.1

# Notes to the accounts

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

	2012 £m	2011 £m
Fair value of assets	6.5	6.1
Value of liabilities	(4.8)	(4.5)
Funded status	1.7	1.6
Unrecognised pension asset	1.7	1.6

## Amounts included within operating profit

	2012 £m	2011 £m
Current service cost	-	-
<b>Total operating charge</b>	-	-

## The amounts to be included as other finance income

	2012 £m	2011 £m
Expected return on scheme assets	0.2	0.3
Interest on scheme liabilities	(0.2)	(0.2)
Effect of restriction on expected return	-	(0.1)
<b>Net finance return</b>	-	-

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

	2012 £m	2011 £m
Opening defined benefit obligation	(4.5)	(4.5)
Interest cost on obligation	(0.2)	(0.2)
Actuarial gain/(loss) on obligation	(0.3)	-
Benefits paid	0.2	0.2
<b>Closing defined benefit obligation</b>	(4.8)	(4.5)

## Changes in the present value of scheme assets

	2012 £m	2011 £m
Opening fair value of assets	6.1	5.8
Expected return	0.2	0.3
Actuarial loss	0.4	0.2
Member contributions	-	-
Benefits paid	(0.2)	(0.2)
<b>Closing fair value of scheme assets</b>	6.5	6.1

Total amounts recognised in the Statement of total recognised gains and losses (STRGL)	2012 £m	2012 £m	2011 £m	2011 £m	
Pension scheme asset at start of year		–		–	
Actuarial loss on assumptions	(0.3)		(0.1)		
Actuarial gain on experience	–		0.1		
Actuarial gain on assets	0.3		0.2		
Surplus restriction	(0.1)		(0.3)		
Effect of restriction on expected return	0.1		0.1		
STRGL losses		–		–	
<b>Pension scheme asset at end of year</b>		–		–	
<b>Actual return on scheme assets</b>			<b>2012 £m</b>	<b>2011 £m</b>	
Expected return on scheme assets			0.2	0.3	
Actual return on scheme assets			0.6	0.5	
<b>Actual less expected return on scheme assets</b>			<b>0.4</b>	<b>0.2</b>	
<b>Amounts for the current and previous four periods</b>	<b>2012 £m</b>	<b>2011 £m</b>	<b>2010 £m</b>	<b>2009 £m</b>	<b>2008 £m</b>
Fair value of scheme assets	6.5	6.1	5.8	9.5	10.4
Value of liabilities (funded obligation)	(4.8)	(4.5)	(4.5)	(8.4)	(8.9)
<b>Surplus</b>	<b>1.7</b>	<b>1.6</b>	<b>1.3</b>	<b>1.1</b>	<b>1.5</b>
Experience gain/(loss) on liabilities	–	0.1	–	–	(0.2)
Experience gain/(loss) on assets	0.4	0.2	0.4	(1.1)	(0.4)
<b>The pension costs for the College and its subsidiaries under SSAP 24 were:</b>				<b>2012 £m</b>	<b>2011 £m</b>
Contributions to USS				26.1	25.8
Contributions to SAUL				6.3	5.9
Contributions to NHS				4.6	4.6
Contributions to defined contribution pension schemes				0.1	0.2
FPS current and past service cost per FRS17				–	–
				<b>37.1</b>	<b>36.5</b>

## Notes to the accounts

	Opening reserves £000	Income and donations received £000	Capital growth/ diminution £000	Expenditure and outgoing resources £000	Closing reserves £000
<b>35. Linked charities</b>					
Wye College Foundation Trust <sup>1</sup>	445.3	1.4	(27.2)	(419.5)	–
The Basil Sydney Furneaux Fund <sup>2</sup>	–	291.4	6.8	–	298.2
E.F. Kernahan Fund <sup>3</sup>	–	125.7	–	(4.5)	121.2
<b>Total</b>	<b>445.3</b>	<b>418.5</b>	<b>(20.4)</b>	<b>(424.0)</b>	<b>419.4</b>

1. The charitable objects of the Wye College Foundation Trust are for the advancement of education in agriculture, horticulture and related sciences and economics and the proper care and development of the countryside, the undertaking of research into these matters and the dissemination of the results thereof.
2. To assist needy past or present students of Wye College, their widows or widowers or children dependants. In addition the capital and income can be used to meet the objectives.
3. To support overseas postgraduate students and in addition an annual award should be made to an overseas postgraduate student of particular merit consisting of a prize in recognition of his or her achievement, and a sum of money or books or for such other contributions to that student's welfare as the College in its absolute discretion sees fit.

<b>Funds where individual income for the year was under £100,000</b>	Opening reserves £000	Income and donations received £000	Capital growth/ diminution £000	Expenditure and outgoing resources £000	Closing reserves £000
Prize Funds (two funds)	272.9	4.6	8.2	(2.6)	283.1
Research support (two funds)	1,482.0	127.2	43.0	–	1,652.2
Student support (one fund)	2,535.5	52.8	75.8	(34.8)	2,629.3
<b>Total</b>	<b>4,290.4</b>	<b>184.6</b>	<b>127.0</b>	<b>(37.4)</b>	<b>4,564.6</b>





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