

2011 2012



Review of the year

2011/2012 The year in pictures

























AUGUST

60 dramatic years

The University of Bristol Theatre Collection celebrated its diamond anniversary (60 years) in a number of ways, including the appointment of Bristol artist Clare Thornton as its first Artist in Residence. Her contributions included *Unfurl*, a performance piece.

SEPTEMBER

Botanic Garden stands out

The University's Botanic Garden was awarded the West Country TV Cup for 'Outstanding Specific Project' in the South West Regional Final of the Britain in Bloom Competition 2011, organised by the Royal Horticultural Society.

OCTOBER

Celebrating Black History

African dance and drumming, poetry and improvisational theatre were among the offerings organised by the Students' Union for local schoolchildren during Black History Month. The University also honoured the life and achievements of a distinguished alumnus, George Odlum (BA 1959), who became Vice President of St Lucia and an ambassador to the UN.

NOVEMBER

Campaign of discovery

An interactive advertising campaign for the University turned an image of the Clifton Suspension Bridge into a QR code – a type of barcode – which, when scanned with a mobile smartphone, takes users to a section of the University's website which promotes the city of Bristol and the University.

FEBRUARY

Royal visit to Langford

Her Royal Highness The Duchess of Cornwall, as Patron of the Langford Trust for Animal Health and Welfare, officially opened two new facilities at the School of Veterinary Sciences, Langford, enabling the delivery of top-quality medical and surgical treatments for both large and small animal patients.

MAY

Carrying the flame for Bristol

Three members of the University – Teaching Fellow Shirley Hume and students Georgie Twigg (BA 2012) and Bettina Urban – were bearers of the Olympic torch on its journey through the packed streets of Bristol. Georgie (pictured) went on to win a bronze medal as a member of the GB hockey team.

DECEMBER Brain for Christmas

Professor Bruce Hood, Director of the Bristol Cognitive Development Centre, delivered the Royal Institution's prestigious Christmas Lectures. His three-part presentation, *Meet Your Brain*, was also broadcast on BBC Four.

JANUARY

Year of the Dragon kicks off

Bristol students from China took part in a range of performances and other events at the Bristol Museum and the M Shed to celebrate Chinese New Year. Helping to mark the Year of the Dragon was the University's Chinese Lion Dance Troupe.

MARCH

Alumnus becomes RSC Artistic Director

Greg Doran (BA 1980), award-winning theatre director and Bristol alumnus, was appointed the new Artistic Director of the Royal Shakespeare Company. Doran, who studied Drama and English at Bristol before training at the Bristol Old Vic Theatre School, had been Chief Associate Director at the RSC since 2006. He received an honorary Doctorate from the University in 2011.

JUNE **Suit gives music a hand**

Bristol engineers and programmers were part of a team who developed a 'musical suit' that allows the wearer to manipulate music using hand gestures. Musician Imogen Heap demonstrated the suit at the renowned, annual TEDGlobal conference in Edinburgh, which showcases cuttingedge technologies.

APRIL

Children of the 90s celebrates 21 years

Hundreds of people gathered in Bristol for a conference to discuss the remarkable scientific discoveries the Children of the 90s study at the University has made since it started in 1991. The study has made an enormous contribution to society's understanding of human health and well-being and has influenced important healthcare debates and policies across the world.

JULY Higgs boson revealed?

Bristol physicists working at the Large Hadron Collider at CERN in Geneva played a key role in the experiment that, it is believed, finally established the existence of the Higgs boson. Thousands of trillions of particle collisions were analysed, and the data was transferred along optical fibres to countries around the world, using equipment and software developed at Bristol.

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Contents

- 1 Introduction
- 2 Mission, vision and values
- 5 Education and the student experience
- 9 Research
- 13 Students
- 16 Staff
- 19 The engaged University
- 21 Estate development
- 24 Information technology and libraries
- 26 Alumni distinctions and honorary degrees
- 27 Philanthropy

Introduction



The review of 2011/12 complements our formal Annual Report and Financial Statements and provides a brief summary of just a few of our many achievements.

We are dedicated to academic endeavour at the highest level and our students benefit from an intellectually demanding, researchinformed education. We encourage independence of mind. This is underpinned by our high-quality research, which enables our students to maximise their full potential and to serve society's needs across the globe, both during and after their time here.

Council, the governing body of the University, plays a significant role in

maintaining our internationally renowned position and ensures that our research and our teaching remain at the top of their game.

The higher education sector has experienced an unprecedented rate of change in the past 12 to 18 months and there remain challenges ahead. However, as I hope you will see throughout this review, Bristol is well placed to meet these challenges as well as to maximise the opportunities ahead so that it continues to build upon its strengths as a world-leading university, known for the high quality of its research and its teaching.

Eric Thomas Vice-Chancellor

Denis Burn Chairman, University Council

Mission, vision and values

Through its Royal Charter granted in 1909, the University of Bristol is committed to 'the promotion of Arts, Sciences and Learning'. In its centenary year, the University restated its mission, together with its vision and values. These are set out below. They also appear at the start of the University's Vision and Strategy for 2009-16. This Review of the Year, together with the associated Annual Report and Financial Statements, charts progress in 2011/12 against the Vision and Strategy.

Mission

To pursue and share knowledge and understanding, both for their own sake and to help individuals and society fulfil their potential.

Vision

The University of Bristol is an international powerhouse of learning, discovery and enterprise. Its vision is of a university whose excellence is acknowledged locally, nationally and globally and that is:

- dedicated to academic achievement across a broad range of disciplines, and to continuous innovation and improvement
- research-intensive, supporting both individual scholarship and interdisciplinary or thematic research of the highest quality
- a centre for intellectually demanding, research-informed education that nurtures independence of mind and helps students achieve their personal goals and serve society's needs, both during and after their time here
- an inclusive and collaborative community of scholarship that attracts and retains people with outstanding talent and potential from all walks of life and all parts of the world
- a stimulating and supportive environment for all students and staff, distinguished by a commitment to high standards, respect for the individual and a strong sense of collegiality
- committed to operating in a sustainable manner

- engaged with society's interests, concerns, priorities and aspirations
- a major contributor culturally, environmentally and economically to Bristol and the South West
- well led and responsibly run, with an emphasis on consultative decision-making and open communication as well as personal responsibility and accountability.

Values

Our mission and vision are underpinned by these values:

Truth

We seek and are inspired by truth, which we pursue for its own sake

Excellence

We strive for the highest quality in all we do

Innovation

We welcome the challenge of the new and value the creative and entrepreneurial

Ambition

We have high aspirations for the University and all its staff, students and alumni

Responsibility

We aim to make a positive difference to the wider world and the future

Independence

We encourage independent thinking and cherish academic and institutional autonomy

Collaboration

We are committed to teamwork and to partnership with others

Transparency

We want to be accountable for our decisions and actions

Diversity

We view the diversity of our staff, students and alumni as a great asset

Equity

We believe in the equitable treatment of all

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Education and the student experience

We aim to educate the brightest of their generation to become the leaders in their chosen career. We continue to invest comprehensively in facilities, training, technology and support services, and to seek to remove barriers to university for people from disadvantaged backgrounds via widening participation, scholarships, e-learning and other ICT initiatives, school visits, and research projects with an international reach.

The University's priorities in this area are to:

- attract and retain academically gifted and highly motivated students from a wide range of backgrounds, creating a diverse and international University community;
- provide an education of the highest quality that is research-led and focused on the needs and expectations of our students;
- ensure students have a fulfilling, challenging and intellectually stimulating experience while at University, that prepares them for employment and worldwide opportunities when they leave;
- provide effective and enabling educational leadership and structures that support educational enhancement;
- ensure that learning takes place within a high-quality environment that enables both students and staff to achieve their full academic potential.

Employability and skills development

Against the backdrop of a continuing economic downturn and an increasingly competitive jobs market, the Careers Service is constantly developing and improving its range of services for students. Its move from Priory Road to a more prominent location on Tyndall Avenue led to a 67 per cent increase in footfall during the 2011/12 academic year, with 24,000 visits to the new premises.

Careers staff held over 380 specialist training sessions for students on career planning and research, job hunting and skills for the workplace, in addition to employer presentations and recruitment fairs. In a successful pilot scheme supported by Higher Education Innovation Funding, the University offered 100 funded internships for students and recent graduates in small and medium-sized enterprises in areas such as ecotourism, events marketing, development agencies and charities. In addition to this, many University departments (including Marketing and Communications, Sustainability and the Vice Chancellor's office) also offered internships. The feedback from students, graduates and employers was overwhelmingly positive.

The Bristol PLuS Awards, a scheme to help improve students' chances in an increasingly competitive job market, was relaunched with a new component in 2011/12. The Awards offer formal recognition of students who complete 50 hours of work experience, either as a volunteer or in a part-time job or an internship. They are seen as a valuable addition to a graduate's CV and are endorsed by over 30 employers including the NHS, Airbus, Rolls-Royce and Cancer Research UK. The number of students who registered for the Bristol PLuS Awards in 2011/12 rose by 48 per cent to 1,200; the number completing the award increased by 15 per cent to 300. Over 1,200 students now participate in the Bristol PLuS Awards. A new addition to the scheme is the Bristol PLuS Sustainability Award, which encourages participants to devote 25 of the required 50 hours to activities with a positive environmental, social or ethical impact.

Student feedback and satisfaction

Statistics on student satisfaction were gathered through local, national and international surveys such as the National Student Survey (NSS) and the Bristol-Barometer Survey. In the NSS, 86 per cent of Bristol respondents expressed satisfaction overall (against a national average of 85 per cent) and 90 per cent expressed satisfaction with the teaching on their course.

Schemes introduced to address the issues raised in these and other surveys included a series of focus groups in schools and a continuation of the 'You Said, We Listened' campaign.

Widening participation

The University continues to invest in a wide range of activity to encourage the most able, least likely students to apply to study at Bristol. Among the activities in 2011/12 was the Access to Bristol Scheme, which now offers 15 subject streams and hosted 288 students from over 49 local schools. Pathways to Law offered a two-year Law programme for 110 students from 36 schools. The University also took part in the Realising Opportunities Programme in partnership with 11 other institutions. This programme provides opportunities for young people across the UK to engage

Education and the student experience continued



Left: Undergraduates at the Bristol Veterinary School. Bottom left: Students take a break in the Priory Road Café. Bottom right: A postgraduate in the Biogeochemistry lab, School of Earth Sciences.

with, and prepare to study at, researchintensive universities. The University also retained the Frank Buttle Trust Quality Mark for supporting care leavers (initially awarded in 2009/10).

Chemistry LabSkills goes global

The award-winning Chemistry LabSkills software, developed by Bristol ChemLabS and Learning Science Ltd, is to be used in chemistry classes around the world, thanks to a partnership with Cengage Learning, one of the world's most successful science publishers and a leader in electronic publishing. The partnership is developing a new, online version of the Chemistry LabSkills package, which was launched in 2008 as a platform for e-learning and skills development through practical, science-based, interactive tasks.

First intake of Lloyds Scholars at Bristol

Fifteen students from the University have been accepted onto the Lloyds Scholars Programme, a new initiative designed to support and encourage students from below-average income families to study at leading universities.

Bristol was one of two UK universities involved in the pilot year of the scheme, which aims to help students enhance their academic qualifications through providing financial support, mentoring and volunteering opportunities. The successful 15 students went through a challenging assessment centre and had to meet a number of criteria to be accepted onto the programme. In return they receive bursaries and performance-related awards worth up to £10,000 over three years, plus work experience and skills to help them develop a competitive edge at the end of their studies.

Biosciences accreditation for Biochemistry BSc

Bristol became one of the first UK universities to receive accreditation for its undergraduate biochemistry course as part of a new scheme designed to raise the standard of bioscience higher education. The Society of Biology developed its Accreditation Programme (with the support of the Biotechnology and Biological Sciences Research Council and the Department for Business Innovation and Skills) to address the gap between the skills graduates possess and the skills employers need. Bristol's BSc in Biochemistry with a Year in Industry is one of four programmes to gain accredited status. The accreditation criteria put a strong emphasis on academic excellence, research experience, and time spent in an active research environment.





NICK SMIT

Left: A graduand at the Summer 2012 ceremony. Right: Students in the new premises of the Careers Service on Tyndall Avenue.

Supporting and rewarding teaching staff

University Teaching Fellowships

University Teaching Fellowships are awarded through open competition to members of academic staff to enable them to spend up to one year on researching and disseminating innovative teaching and learning practices at a national or international level. Fellowships were awarded in 2011/12 to Dr Michele Barbour (PhD 2003, PGCE 2007) (Oral and Dental Sciences) and Professor Bruce Hood (Experimental Psychology) for the 2012/13 academic year.

University Teaching and Learning Awards

The University presents awards annually to celebrate and recognise excellent teachers as well as individuals who support teaching and learning. Awards are made in a number of categories and are judged by a panel of Education Directors, chaired by Professor Nick Lieven, the Pro Vice-Chancellor for Education.

The University Teaching and Learning Awards, which recognise excellent teachers, were given this year to: Barbara Perks School of Physics

Dr Catherine O'Rawe School of Modern Languages

Dr Josie McLellan School of Humanities

Dr Chris Metcalfe School of Community and Social Medicine

Liz Gaze, Dr Gus Cameron and colleagues in the Centre for Comparative and Clinical Anatomy Faculty of Medical and Veterinary Sciences

Dr Val Williams

School for Policy Studies

The Rising Star category of award, for those who have been teaching in higher education for less than five years and who show excellent potential, was given to:

Dr Mark Dennis School of Physics

Simon McIntosh-Smith Merchant Venturers School of Engineering

Dr Alaa Daud (MSc 2010) School of Oral and Dental Sciences The use of e-learning in programme delivery and support of staff and students is recognised through the University e-Learning Award, which this year went to Andrea Zhok and Elena McNeilly (School of Modern Languages).

The Award for Influence in Higher Education, recognising academic staff who raise the profile of education and influence higher education beyond the University of Bristol, was given to:

Dr Tony Hoare

Widening Participation Research Cluster

Professor Judy Harris

School of Physiology and Pharmacology

A new 'Education for Sustainability' Award, sponsored by Sustainability via Green Impact and the Green Academy, recognises academics who have shown innovation in integrating education for sustainability into current teaching. The inaugural award was given to Dr David Drury (MEng 1997, PhD 2006) (Merchant Venturers School of Engineering).

Education and the student experience continued

Statistics and commentary

Financial support to students		Bursaries	Scholarships	Hardship funds
The University can provide financial support to		£	£	£
students in the form of bursaries, scholarships and	Undergraduate	3,496,043	194,815	345,163
discretionary assistance from hardship funds. In	Postgraduate	125,040	1,990,981	60,975
2011/12, the University disbursed the following amounts in these kinds of financial support:	Total	3,621,083	2,185,796	406,138

Total student numbers 2011/12

	Undergraduate	Postgraduate taught	Postgraduate research	Total
Arts	2,870 (78.1%)	514 (14%)	293 (8%)	3,677
Science	2,974 (78.8%)	140 (3.7%)	659 (17.5%)	3,773
Engineering	1,881 (74.4%)	315 (12.5%)	331 (13.1%)	2,527
Medical and Veterinary Sciences	1,540 (81.1%)	102 (5.4%)	257 (13.5%)	1,899
Medicine and Dentistry	1,707 (73.1%)	454 (19.4%)	174 (7.5%)	2,335
Social Sciences and Law	2,487 (50.6%)	1,856 (37.8%)	568 (11.6%)	4,911
Year total	13,459 (70.4%)	3,381 (17.7%)	2,282 (11.9%)	19,122

Total student numbers 20010/11

	Undergraduate	Postgraduate taught	Postgraduate research	Total
Arts	2,721 (79%)	435 (12.6%)	290 (8.4%)	3,446
Science	2,912 (81.6%)	131 (3.7%)	524 (14.7%)	3,567
Engineering	1,735 (69.76%)	425 (17.09%)	327 (13.15%)	2,487
Medical and Veterinary Sciences	1,449 (82.2%)	85 (4.7%)	240 (13.2%)	1,824
Medicine and Dentistry	1,677 (69.9%)	549 (22.9%)	172 (7.2%)	2,398
Social Sciences and Law	2,544 (49.5%)	2,024 (39.4%)	576 (11.2%)	5,144
Year total	13,182 (69.5%)	3,645 (19.2%)	2,138 (11.3%)	18,965

Number of degrees awarded

	2011/12	2010/11
Undergraduate	3,016	3,110
Postgraduate taught	2,431	1,869
Postgraduate research	605	564

Graduate destinations

Every year, new graduates are asked to complete a questionnaire concerning their employment or study status. The resulting figures enable the University to build a year-on-year picture of the destinations of its graduates.

Graduate destinations 2011

Full-time paid work	51.4%
Part-time paid work	6.5%
Voluntary/unpaid work	3.0%
Work and further study	6.7%
Further study	20.0%
Assumed to be unemployed	5.9%
Not available for employment	3.5%
Other	1.1%
Explicit refusal	1.9%

Graduate destinations 2010

Full-time paid work	53.8%
Part-time paid work	6.1%
Voluntary/unpaid work	2.5%
Work and further study	5.2%
Further study	20.4%
Assumed to be unemployed	5.5%
Not available for employment	3.7%
Other	1.0%
Explicit refusal	1.8%

Research

The University's research is world renowned for its quality and impact and covers a broad spectrum of disciplines. We tackle the world's most urgent issues head-on; issues such as health and disease, climate change, food security, energy, and social justice. Our academics are also engaged with the cultural life and history of nations, communities and individuals across the world; with the future of technology, science and medicine and the development of innovations in every field; and with the rich cross-pollination made possible by interdisciplinary fields such as nanotechnology, quantum cryptography, composite materials, stem-cell engineering, and complexity science.

The University's priorities in this area are to:

- be recognised globally for the quality of our research;
- create a positive research environment and infrastructure that will attract and retain the highest quality researchers and postgraduate students worldwide;
- develop our portfolio of flagship and high-impact research, working across and between disciplines to answer important societal questions and contribute to the social, political, environmental and economic well-being of the region, the UK and the wider world;
- seek, manage and provide professional support for strategic relationships and alliances with key national and international partners – business and industry, the public sector, user communities, sponsors of research and policy-makers;
- play a leading intellectual role in enterprise, knowledge exchange and economic and social impact agendas, and continue to be a beacon of good practice and leader of innovation in the city and region;
- develop a sustainable portfolio of research informed by evidence-based leadership, management and administration and supported by high standards of governance.

New centre for composite materials

A major new centre for innovation in composite materials, hosted and owned by the University of Bristol, is open for business. The National Composites Centre (NCC), a £25-million investment supported by the Department for Business, Innovation and Skills, the South West Regional Development Agency and the European Regional Development Fund, was formally opened by the Business Secretary, Dr Vince Cable, in November 2011.

Composite technology is transforming a wide range of industries, with applications to the manufacture of electric cars, tidal turbine blades, aircraft wings, medical equipment, and much more. The NCC will bring together dynamic companies and enterprising academics to develop new technologies for the design and rapid manufacture of high-quality composite products. It is also part of the High Value Manufacturing (HVM) Technology and Innovation Centre initiative, a network of world-leading technology and innovation centres that aim to transform the UK's capability for innovation.

The Centre has powerful support from industry members: AgustaWestland, Airbus, Rolls-Royce, GKN, Umeco and Vestas have already committed almost £5.5 million of work over three years. It is located at the new Bristol and Bath Science Park, in which the University is a key stakeholder, and which serves as a hub for many of the region's science and technology businesses.

University Research Institutes

The academic year 2011/12 saw the formal approval by Senate and the University Planning and Resource Committee for the first two University Research Institutes (URIs), which serve as focal points for the wide-ranging research conducted at Bristol to tackle key global issues. The Cabot Institute, having been founded in 2010 to bring together research groups and individuals working on themes connected with global uncertainty and the environment, became the first URI; the second draws together the many strands of health research at the University and is a key player in Bristol Health Partners, a major new partnership (with the local NHS Trusts, Bristol City Council and the University of the West of England) that aims to improve healthcare services in Bristol by integrating, promoting and developing the city's strengths in clinical services, research, innovation and education. URI Health was launched in August 2012.

Funding boost for creative industries

The University is a key partner in a new Knowledge Exchange Hub for the region. The Research and Enterprise in Arts and Creative Technologies Hub (REACT) for Bristol, the South West of England and South Wales is one of four funded by the Arts and Humanities Research Council (AHRC) to boost their respective regions' creative economy. Other partners in REACT are the Universities of Bath, Cardiff, Exeter and the West of England and the Watershed Arts Trust (and iShed). REACT will invest £3 million in up to 70 themed projects over four years.

Research continued





The Business Secretary, Dr Vince Cable, opens the National Composites Centre.

A racehorse is put through its paces at the School of Veterinary Sciences in Langford.

Cord blood could mend hearts

Stem cells from umbilical cord blood could help repair damaged heart muscle, according to a study led by Professor Raimondo Ascione (ChM 2007), Chair of Cardiac Surgery and Translational Research in the School of Clinical Sciences. The research, funded by the British Heart Foundation and the National Institute for Health Research, found that it is possible to expand up to seven-fold, in vitro, a rare variety of stem cells (called CD133+) from human cord blood and then grow them into cardiac muscle cells. The findings, published online in Stem Cell Reviews & *Reports*, could have major implications for future treatment following a heart attack.

Partner abuse is 'normal' say disadvantaged youth

The levels of violence girls and boys from disadvantaged backgrounds experience in their partner relationships is revealed in research funded by the NSPCC and led by Christine Barter, Senior Research Fellow in the School for Policy Studies. The report, 'Standing on my own two feet', is the first in-depth look at violence in the intimate relationships of disadvantaged teenagers not in mainstream education. The researchers interviewed 82 boys and girls aged 13-18, some of whom had been permanently excluded from school, or were young offenders or teenage mothers. Over half of the girls reported that they had been a victim of physical violence in at least one intimate relationship, and a quarter of boys said they had dated physically aggressive partners. Many appeared to accept violence as a normal, although unwanted, aspect of being in a relationship. The problem was highlighted in a Home Office teen violence campaign launched the same month.

Archaeology + geology + biology = ant nests in four dimensions

A novel application of CT scanning technology has allowed an interdisciplinary team to create a four-dimensional picture of how ants build their nests – some of the most remarkable structures in nature. Nests are built collectively, through selforganisation and local interactions of ants with one another and their environment, but previous studies used plaster casts that destroy the nests.

Geologist Dr Nicholas Minter (BSc 2003, PhD 2008), archaeologist Dr Kate Robson Brown (BSc 2003, PhD 2008), and biologist Professor Nigel Franks used high-resolution CT scanning as a non-destructive way of imaging ant nests throughout the process of their excavation. The resulting dataset – the first of its kind – showed that nest architecture is influenced by factors both social (the density of ants) and environmental (the structure of the sediment through which they tunnel).

Jetlagged racehorses see the light

A study led by Dr Domingo Tortonese in the School of Veterinary Sciences has shown that racehorses can adapt very quickly to sudden shifts in the 24-hour light-dark cycle, such as those resulting from a transmeridian flight, with unexpected benefits to their physical performance.

In the first study of its kind, thoroughbred horses were housed in light-controlled rooms and put through a daily fitness programme for three months. They then experienced a shift in the 24-hour light-dark cycle that mimicked an easterly flight across seven time zones. The results showed that they adapted rapidly to changes in light, with no increase in their level of stress; instead, there were alterations in their endocrine systems favouring enhanced physical capacity. Consequently, the horses were able to run at full gallop for an additional 25 seconds before reaching fatigue. Since racehorses can be subjected to changes in daily light without travel being involved, these findings could help to reduce the level of injury in competitions. The research, in collaboration with the universities of Melbourne and Cambridge, was supported by a research grant from the Horserace Betting Levy Board and by a Wellcome Trust Equipment Grant.

One step closer to a quantum computer

Researchers from the Centre for Quantum Photonics have developed a multi-purpose optical chip that represents an important step forward in the race to develop a quantum computer. The chip generates, manipulates and measures entanglement and mixture – two quantum phenomena which are essential driving forces for quantum computation.

The Bristol researchers, led by Peter Shadbolt, have shown for the first time that entanglement (a connection between two distant particles) can be generated, manipulated and measured entirely on a tiny silica chip. They have also used this chip to measure mixture - an often unwanted effect, which can now be controlled and used to characterise quantum circuits. The 70mm x 3mm chip performs several experiments that would ordinarily need a large optical bench. It consists of a network of tiny channels which guide and manipulate single photons. Using eight reconfigurable electrodes embedded in the circuit, photon pairs can be manipulated and entangled, producing any possible entangled state of two photons or any mixed state of one photon. The researchers are now working on scaling up the complexity of this device.

'Royal' coffin found in seaside museum

Dr Aidan Dodson, a senior research fellow in Bristol's Department of Archaeology and Anthropology, discovered an extremely rare Egyptian coffin at Torquay Museum while undertaking a long-term project to catalogue Egyptian coffins in English and Welsh provincial museums.

The child's coffin was cut from a single log of cedar wood and is exquisitely carved, inlaid and painted. Its present occupant is in fact nearly 1,000 years younger than the coffin itself, which may originally have been made for a junior member of royalty somewhere between 1525 BC and 1470 BC.

Bristol spin-out company AIMs high

Revolymer, the British polymer company co-founded by Professor Terence Cosgrove (DSc 1991) based on technology he developed at Bristol, was listed on AIM, the London Stock Exchange's international market for smaller growing companies. Revolymer conditionally placed a total of 25,000,000 Placing Shares with institutional investors at a price of 100 pence per Placing Share ("Placing Price") to raise gross proceeds of £25 million.

Its entire issued share capital (including the Placing Shares) was issued to trading on the AIM market of the London Stock Exchange in July 2012. Revolymer will use the net proceeds of the Placing primarily to expand the distribution of its confectionery gum products in the USA and into Europe, to fund additional regulatory dossiers in connection with its nicotine gum commercialisation, and to fund the development of its consumer specialties products.

Bristol New Enterprise Competition

The winner of the University's 2011 New Enterprise Competition (organised to inspire new business ideas and entrepreneurial talent among students, staff and recent graduates) was Rusty Squid Ltd, whose team of roboticists, puppeteers and model makers design and build 'corporeal' creatures which can interact with people. Their 'soft robotics' creations have already proved popular with theatres and museums, and with marketing companies. Final-year Physics PhD student Brendan Arnold put Rusty Squid's business plan together and works alongside company directors David McGoran, Roseanne Wakely and Paul O'Dowd.

Second place went to students Sam Harris and Nishil Raichura for Pedal Power Transport, a courier and taxi business powered by people rather than petrol. They have specialised rickshaws which allow them to make deliveries of people and parcels around the city, offering a high-quality, competitive and eco-friendly service.

Two teams of Engineering students shared third place: Cleatfit (Sam Barrett (MEng 2012), Madeline Burke (MEng 2012), Leo Morgan (MEng 2012), James Gray (MEng 2012) and Odysseas Pappas (MEng 2012)), a mechanical solution for cyclists to accurately replace the cleats that fasten their cycling shoes to their pedals; and Flare (Tim Ankers (MEng 2012), Laura Clare (MEng 2012), Will Tiley (MEng 2012), George Cusworth (MEng 2012), Dave Green (MEng 2012) and Claire Tobin (MEng 2012)), which designs organic cotton bags that use colour-changing technology to indicate when UV radiation from the sun has reached specific intensities.

This year's competition entries were judged by a panel of industry experts from sponsoring organisations including Deloitte, EADS, IP Group, Motorola, Santander, SETsquared Business Acceleration Centre (Bristol), Veale Wasbrough Vizards, and Wyvern Seed Fund.

The head of the coffin discovered at Torquay Museum.





Research continued

Grants

The University attracted a total of $\pounds126.4$ million in grants during 2011/12. This included the following:

£1.3 million from the European Research Council (ERC) to Dr Paul Curnow (PhD 2003) in the School of Biochemistry for a study of minuscule algae cells that are able to produce silica – the fundamental constituent of glass – in the hope that his findings could lead to a new generation of medical imaging tools.

£960,000 from the ERC to Professor Samir Okasha and Professor Ken Binmore in the Department of Philosophy for their project 'Darwinism and the Theory of Rational Choice'.

Over €3 million (€2 million from the European Commission plus a €1.1 million CHIST-ERA award from European funding agencies including the EPSRC) to Dr Ruth Oulton and Professor John Rarity at the Centre for Quantum Photonics to address the problem of sending information in single quantum particles over global distances by using semiconductor devices on the nanoscale.

£900,000 from the Natural Environment Research Council (NERC) and the Economic and Social Research Council (ESRC) as part of a larger grant for a collaborative study (with the universities of East Anglia, Oxford and Leeds, the British Geological Survey and the Overseas Development Institute, plus overseas partners) exploring better ways to forecast and cope with future volcanic eruptions. **£2.7 million** from the Biotechnology and Biological Sciences Research Council (BBSRC), the State of São Paulo Research Foundation (FAPESP, Brazil) and the British Heart Foundation to a research team comprising members of the University of Bristol, the Bristol Heart Institute and the University of São Paulo, to explore possible new blood pressure treatments that target the nervous system.

€500,000 to Dr Simon O'Doherty (MSc 1988, PhD 1991) in the School of Chemistry as part of InGOS (Integrated non-CO₂ Greenhouse gas Observing System), an EU-funded project to monitor emissions of methane, nitrous oxide and other non-CO₂ greenhouse gases and improve the observational infrastructure.

A total of over **£1 million** from Action Medical Research and the Medical Research Council to Bristol neuroscientists led by Dr Nadia Cerminara, Professor Richard Apps and Dr Richard Edwards to target childhood cancer, explore how the brain controls movement, and tackle the high-risk surgery involved in treating brain tumours in children.

£246,000 from the Leverhulme Trust to Professor Sarah Street in the Department of Drama: Theatre, Film, Television for her project 'Colour in the 1920s: Cinema and its Intermedial Contexts'.

£200,000 from the Leverhulme Trust to Dr Jonathan Rossiter (BEng 1992, MSc 1996, PhD 2000) in the Department of Engineering Mathematics for his project 'A robot that decomposes: towards biodegradable robotic organisms'.

£297,000 from the British Heart Foundation to the Bristol Heart Institute for a project led by Gavin Murphy, Reader in Cardiac Surgery, to develop blood transfusion methods that reduce the risk of organ injury during cardiac surgery.

£750,000 from the UK Medical Research Council (MRC) for research led by Dr Ariel Blocker from the School of Cellular and Molecular Medicine (in collaboration with Dr Luca Giuggiolli at the Centre for Complexity Sciences and Professor Keiichi Namba at the University of Osaka, Japan) into the mechanisms behind infectious diseases, focusing on how a dysentery-causing bacterium infects its human host.

Over **£640,000** from the EPSRC to Dr Martin Cryan in the Department of Electrical and Electronic Engineering (in collaboration with Dr Geoff Nash from the University of Exeter) to develop a new type of nanoscale lens technology that it is hoped will revolutionise the semiconductor laser (which powers the internet, laser machining, the defence industry and scientific research).

Students

Every year, Bristol's students reach beyond the basic requirements of their studies and demonstrate their initiative, energy and enthusiasm in a tremendous range of different contexts – academic, sporting, business and volunteering, to name just a few. The University endeavours to provide a supportive environment for such talented individuals to thrive and excel in every aspect of their lives at Bristol. It is committed to providing a full range of services and facilities that will enable students to make the most of their university career and equip them to become tomorrow's leaders and pioneers.

The University's priorities in this area are to:

- ensure a fair and transparent system of student representation that provides students with the opportunity to shape their educational and extra-curricular experience;
- support a vibrant, active and democratic Students' Union;
- ensure the provision of learning and skills opportunities that enhance students' future employability;
- offer a rewarding extra-curricular experience that provides for students' health, well-being and personal development;
- provide advice and support for students' personal welfare and ensure effective integration into the University and local community.

Bristol students in the charitable and voluntary sector

The Students' Union emphasises to its members the importance of escaping the 'student bubble' and engaging with the local community in a positive way. The University of Bristol Union's (UBU) Raising and Giving (RAG) and Volunteering programmes offer a tremendous range of opportunities for charitable work, along with related training and personal development courses to help students complement their academic work and enhance their CVs.

RAG

In the year 2011/12, RAG activities raised over £134,000 through a varied programme that included street collections, skydiving, an overnight soccathon, building 'Britain's Biggest Burrito', and the traditional RAG procession through the streets of Bristol.

Volunteering

During 2011/12, UBU Volunteering ran 41 student-led projects involving over 1,000 students, and ran training programmes for over 400 volunteers, with sessions including 'Learning Disability and Autism Awareness', 'Effective Communication' and 'Working in Schools'.

Long-running events such as a Christmas party for local children and a dinner dance for disadvantaged residents are joined on the roster by new student-led initiatives including a project providing literacy and numeracy support for the long-term unemployed.

Extraordinary success for Bristol engineers

More than a quarter of the national Royal Academy of Engineering Leadership Advanced Awards were awarded to students at Bristol. The ten students in the Faculty of Engineering selected as 'inspirational role models to the next generation of engineers' were: Peter Cooper, Arthur Mitchell and Thomas O'Neill (Engineering Design); Dominic Chapman and Shashitha Kularatna (Aerospace Engineering); Matthew Oliver, William Thurston and Benedict Sayer (Civil Engineering); and Marcus Scaramanga and Macdara O'Shea (Mechanical Engineering). The students competed in a challenging selection event against over 200 students from UK universities to win the award.

Students and alumni excel at Olympics

Bristol students past and present triumphed at the London 2012 Olympic Games, collecting a total of five medals.

Laura Bechtolsheimer (BSc 2007) won gold as a member of the dressage team plus an individual dressage bronze; sailor Hannah Mills, a student in Mechanical Engineering, secured a silver in the women's 470 sailing with partner Saskia Clark; lain Percy (BSc 1998) and his partner Andrew Simpson took a silver medal in the star class sailing; and hockey player Georgie Twigg (BA 2012) helped the women's GB hockey team win a bronze.

The closing ceremony (designed by Bristol alumna Es Devlin (BA 1993)) included a performance by Bristol student RAG Morris dancers, who accompanied Eric Idle. The

Students continued



Juliette Denny with local children in Kenya

ceremony ended with a tribute to all the volunteers who helped ensure the success of the Games, including a number of Bristol University students and staff members.

A sporting legacy for Kenya

Juliette Denny, a postgraduate Geology student, helped to sow the seeds for a lasting Olympic legacy in Kenya. She spent four weeks there in 2011 with other young volunteers from Bristol, promoting sport and community ties as part of Umoja, the Bristol-Kenya Partnership. Together they built a football pitch, two netball pitches, a volleyball pitch, a cricket pitch and a long jump track and pit for a local community to use.

Umoja, from the Swahili word for 'togetherness', was formed as a result of the friendship between Bob Reeves (MEd 1982) (former Director of Sport Exercise and Health at Bristol) and renowned Kenyan athlete Kip Keino (Honorary LLD 2007). The charity fostered sporting, educational, cultural and commercial links between Bristol and Kenya ahead of the 2012 London Olympic Games. The entire Kenyan squad based themselves in the city for their pre-Olympics training camp.

Student awards and prizes

Bristol engineer receives 'Student of the Year' award

Stephen Thompson (MEng 2011), a student in the Department of Civil Engineering, was one of the winners of the international 2011 Science, Engineering & Technology Student of the Year awards. Stephen received the Laing O'Rourke Award for 'Best Civil Engineering Student' for his project entitled 'Redevelopment of the Colston Hall', supported by Arup's Bristol office. Record numbers of entries were received from every major university in Europe; two other Bristol students were also shortlisted for the awards, which are supported by industry and leading research institutions including Airbus, BP, Kraft Foods, National Grid, and Lloyd's Register Educational Trust.

Tom Flynn named Best Student Journalist

Tom Flynn, the editor of the University's student newspaper *Epigram*, was awarded Best Student Journalist of the Year in the National Union of Students (NUS) Awards 2012. The award ceremony was the culminating event at the NUS Students' Unions 2012 summer conference in Exeter.

PhD student wins dissertation prize

Stefano Longo (PhD 2011), who completed his PhD in the Dynamics and Control Research Group at the Queens School of Engineering, won the 2011 Institution of Engineering and Technology's (IET) Control and Automation Doctoral Dissertation prize for his work on 'Optimal and robust scheduling for networked control systems'. The IET Ambition and Achievement Awards recognise some of the world's most outstanding engineers and technologists and acknowledge the talents of exceptional students and young professionals.

Fulbright Award for complex approach to music

Matt McVicar (MSc 2008, MRes 2010), a PhD student at the Bristol Centre for Complexity Sciences (BCCS), has gained a prestigious Fulbright Award to pursue research into developing automatic methods of musical analysis. His research has already shown that taking account of the complexity of interactions between aspects such as the chords, key, bassline and beat structure leads to greater accuracy of chord recognition. The award will allow Matt to spend a year at Columbia University in New York, with Professor Dan Ellis at the Laboratory for Recognition and Organization of Speech and Audio.

Archaeology student strikes gold

Jimena Lobo Guerrero Arenas, a postgraduate student in the Department of Archaeology and Anthropology, was awarded a Short Term Research Grant from Harvard University for research into early colonial gold-working in Colombia. Her project, which involves fieldwork and archival research, focuses on metallurgy and mining after the 16th-century Spanish conquest. It includes the study of individual craftsmen and workshops, the reconstruction of the technology and organisation of metal production, and the roles played by metal items in the cultural milieu of the period.

Award for fighting food poverty

FoodCycle Bristol, an initiative run by students at Bristol to help alleviate food poverty in the city, was named Best Social Enterprise at the SETsquared Partnership's second annual student enterprise awards. FoodCycle Bristol provides free meals for the community using food which would otherwise be thrown away. The scheme, established in 2009, serves free three-course meals to beneficiaries in Easton every Sunday from its base in Easton Community Centre. It is co-ordinated by students and volunteers from throughout the community who help run the kitchen and collect the waste food using bicycle trailers. FoodCycle hopes to set up a second community kitchen in the near future.

Low-carbon research wins first prize

Jo Humphrey (MSc 2012), a final-year undergraduate in the School of Chemistry, was awarded first prize in a competition that recognises outstanding student research in the area of lowcarbon technologies. Jo's work with the Electrochemistry Group involved finding new materials for fuel cell applications, and she focused on developing specialist low-cost diamond powders, which can replace conventional electrocatalyst coatings and offer significantly improved lifespans for fuel cells.

The competition is sponsored by Low Carbon South West, a partnership between businesses, academia, and local authorities promoting the growth of the environmental technologies and services sector in the South West.

Economics student goes global

Shaun Miller (BSc 2012), a final-year Economics undergraduate, was named a Kauffman Global Scholar after winning a competition organised by the SETsquared Partnership. Shaun's winning entry was a motion tracking device that connects with mobile phones and computers, which will have a wide range of applications.

Kauffman Global Scholars is a fully funded, 15-month programme that includes a six-month stay in the USA with fellow scholars, during which they will visit Stanford and Harvard Universities and the Massachusetts Institute of Technology. This is then followed by a three-month internship at a technology company to understand the real-life challenges and



Tom Flynn

Rg with A Up by the state of th

Adam Smith, Co-ordinator of Food Cycle, Bristol receives the SETsquared award from Simon Woodroffe OBE, founder of YO!

rewards of entrepreneurship. Before going to the USA, Shaun will be the 'Entrepreneur in Residence' at Bristol, with an opportunity to develop his business concept while networking with entrepreneurs, investors, and service providers in the UK. He will also encourage and enable students to work on their own entrepreneurial ideas.

SPAIS undergraduates head to Canada

Four students from the School of Sociology, Politics and International Studies (SPAIS) were accepted to give papers at the Tomorrow's Ideas, Now (TIN) International Undergraduate Interdisciplinary Conference at the University of Alberta, Edmonton, Canada, in August 2012. Luke de Noronha (BSc 2012), Lizzie Packham (BSc 2012), Alice Peck (BSc 2012) and Mara Ruse (BSc 2012) were among some 80 applicants for this international event. This initiative came about as a result of co-operation between Bristol's Institute for Advanced Studies (IAS) and its equivalent at Alberta, the Kule Institute for Advanced Studies,

and the students will be co-funded accordingly.

Best lectures go free-range

Free Range University, a social enterprise started by Bristol students and alumni, is expanding to universities across the UK, giving members of the public a unique opportunity to experience inspirational teaching for free.

Tom Corfield (MEng 2009) developed the Best of Bristol Lectures (BoB) idea after he decided to sit in on some of his friends' favourite lectures. Over 2,000 students voted on which teachers from across the University they felt were the most interesting and engaging, leading to a series of lunchtime lectures attended by more than 6,000 students, staff and members of the public. He graduated in 2009 and secured funding from the University and from social enterprise charity UnLtd to turn the BoB concept into the Free Range University, or Fruni (www.fruni.org.uk), an online platform which allows students at any university to replicate the model.

Staff

The University strives hard to make Bristol an attractive employer for highly talented academic and support staff. The range and quality of the work undertaken by academic and support staff continues to inspire, and here we report on new initiatives in this field and on some outstanding examples of collective and individual achievement.

The University's priorities in this area are to:

- recruit and retain first-class talent;
- foster a high-achieving workforce that is competent, committed, creative and capable of managing and responding positively to change;
- develop a culture and an environment that motivates and enables people to make an excellent contribution.

Human Resources Operations

In 2011/12, Human Resources implemented a number of changes to further improve efficiency and performance. For example, Human Resources (HR) Operations teams are now located with their Faculties/ Divisions so that HR Operations teams form a more integral part of their Faculty/Division. HR Operations teams are also now working more closely with Finance and Payroll to improve the efficiency and delivery of services and this is beginning to deliver returns through an improved service.

HR Operations teams successfully implemented the revised Promotions and Progression procedure, with support from the Organisational Development team.

In the coming year a major project to replace HR's People Information Management System (PIMS) with an integrated HR, Finance and Payroll system is underway and HR Operations will be working closely with Finance and Payroll to progress this.

Organisational development

The expanded Organisational Development (OD) team – now comprised of Equality and Diversity; Change Management; Staff Development; Policy and Reward; Resourcing; and Systems – came into operation in 2011/12. This new OD team has carried out a number of improvement activities including its Creating Excellence programme, which was developed specifically to support new teams and new ways of working.

A review of the leadership and management-development needs for support staff is currently underway, with development programmes for both first-line and middle managers planned for 2012/13.

In January 2012 work began on delivering a Career Framework for support staff.

A working group, involving managers from across the University and the trade unions, has identified some initial potential career pathways and is now mapping the skills, knowledge and experience needed at each stage and the potential training opportunities.

In addition, a new initiative, the Performance Enhancement project, aims to create a culture in which employees can feel confident about their performance in their current role and have clear structure for their career progression. OD is also prioritising its discussions with senior managers to create a more structured approach to talent management and succession planning.

Other initiatives include:

- plans to introduce a streamlined coursebooking system;
- a pilot mentoring scheme, for both academic and support staff;
- a new e-recruitment system.

A third staff survey was carried out in early 2012, and 49 per cent of all staff – the highest number yet – responded. A full report together with an associated action plan is due to be published during the 2012/13 Autumn Term.

Equality and diversity

The main focus for the Equality and Diversity team in 2011/12 has been on improving the representation of women in academic leadership roles. As a result Council has agreed to a set of recommendations that are now being implemented across the University to increase gender diversity in senior academic roles. The team has also worked closely with colleagues in the Medical Faculty on preparing submissions for recognition under the Athena SWAN (Scientific Women's Academic Network) Charter – a national scheme that recognises excellence in the employment of women in the fields of science, technology, engineering, maths and medicine (STEMM). In 2012, two schools were formally recognised under the Charter for supporting the career development of their female staff: the School of Chemistry received a Bronze award and the School of Physiology and Pharmacology successfully renewed its Silver award.

Other activities include:

- developing policies, procedures and processes to ensure that the University can demonstrate due regard to equality of opportunity;
- developing, with the support of members of the University's Individual Circumstances Group, a Code of Practice for submission as part of REF2014;
- continuing collaboration with the Russell Group Equality Forum on key issues connected to equality and diversity.

Influencing policy

Many Bristol academics achieve the distinction of being appointed to sit on the boards and decision-making committees of government and non-profit organisations, which in many cases enables them to contribute to shaping national and international policy. Some examples from the year include:

- Professor Patricia Broadfoot (DSc 2000, Honorary LLD 2010) from the University's Graduate School of Education was appointed a member of a new Social Science Expert Panel for the Department for Environment and Rural Affairs (Defra) and the Department of Energy and Climate Change (DECC).
- Jonathan Sterne, Professor of Medical Statistics and Epidemiology, and Debbie Lawlor (MB ChB 1986), Professor of Epidemiology in the School of Social and Community Medicine, were two of 25 new Senior Investigators to represent the country's most outstanding leaders of clinical and applied health and social care research by the National Institute for Health Research (NIHR). Gianni Angelini, British Heart Foundation (BHF) Professor of Cardiac Surgery in the School of



Professor Varinder Aggarwal FRS



Professor Debbie Lawlor

Clinical Sciences and Bristol Heart Institute, was one of 29 NIHR Senior Investigators who were re-appointed.

 Dr Pat Kehoe, Reader in Translational Dementia Research in the School of Clinical Sciences was invited to join the Research Advisory Committee (RAC) of the Alzheimer's Society.

Fellowships and professional appointments

Many members of staff represent the University through prestigious Fellowships and membership of professional organisations. The year 2011/12 saw the following appointments, among others:

 Varinder Aggarwal, Professor in the School of Chemistry, Alasdair Houston, Professor of Theoretical Biology in the School of Biological Sciences, Richard Kerswell, Professor of Applied Mathematics in the School of Mathematics, and John McNamara, Professor of Mathematics and Biology in the School of Mathematics, were all elected Fellows of the Royal Society.

- Professor Gillian Clark of the Department of Classics and Ancient History was elected a Fellow of the British Academy.
- Debbie Lawlor (MB ChB 1986), Professor of Epidemiology at the University's School of Social and Community Medicine, was elected to the Fellowship of the Academy of Medical Sciences.
- Mario di Bernardo (PhD 1998), Professor of Nonlinear Systems and Control in the Department of Engineering Mathematics and a member of the Bristol Centre for Complexity Sciences, was named a Fellow of the Institute of Electrical and Electronics Engineers (IEEE).
- Malcolm Evans, OBE, Professor of International Law, and one of the UK's leading human rights experts, was awarded an Honorary Fellowship by Bangor University, Wales for his services to law.
- Haydn Mason, Emeritus Professor and Senior Research Fellow in the Department of French, was elected a Fellow of the Learned Society of Wales.

Staff continued





Dr Pat Kehoe

 Mervyn Miles, Professor of Physics, Head of the Nanophysics and Soft Matter Group, and Director of the Centre for Nanoscience & Quantum Information at the University of Bristol, became the new Chief Scientific Advisor for IOP Publishing.

Awards and prizes

Staff continue to distinguish themselves through the receipt of awards and prizes. Accolades from the year include:

- Professor Kei Cho, Chair of Neuroscience in the University's School of Clinical Sciences, received one of the Royal Society's most prestigious awards, a Royal Society Wolfson Research Merit Award, for his work on synaptic plasticity and pathology in the brain.
- Three academics were awarded an Order of the British Empire (OBE): Professor Marianne Hester, Head of the Centre for Gender and Violence Research at the University's School for Policy Studies, in recognition of her work to improve the quality of care given for women and children experiencing domestic violence and abuse; Professor Jean Golding (DSc 1994), Emeritus Professor of Paediatric and Perinatal Epidemiology, in recognition of the world-famous population study, Children of the 90s (also known as ALSPAC), which she founded in 1991; and Emeritus Professor Derek Offord, a specialist in 18th- and 19th-century Russian

history, thought and literature, for services to Russian studies in language and culture.

- Four academics in Bristol's School of Earth Sciences were awarded medals from the Geological Society: Dr Cherry Lewis (BSc 1994), an honorary Research Fellow, was awarded the Sue Tyler Friedman Medal: Willy Aspinall, Cabot Professor in Natural Hazards and Risk Science, received the William Smith Medal, for excellence in contributions to applied geoscience; Royal Society Research Fellow Dr Daniela Schmidt received the Lyell Fund, awarded to outstanding early career scientists; and Professor Christopher Hawkesworth, a Visiting Professor in the School of Earth Sciences, was awarded the Wollaston Medal, the highest award given by the Geological Society.
- Dr Heather Whitney (PhD 2002), Lecturer in Global Change in the School of Biological Sciences, has been awarded the 2012 President's Medal in Plant Sciences by the Society for Experimental Biology, for her ground-breaking research on plant iridescence.

- Professor Katharine Cashman, AXA Professorial Research Fellow in the School of Earth Sciences, was elected to the American Academy of Arts and Sciences (AAAS).
- Professor Keith Stanton from the University's Law School was elected President of the Society of Legal Scholars (SLS) for 2011/12.
- Professor Keith Edwards in the School of Biological Sciences was awarded the Royal Agricultural Society of England's 2011 Research Medal.
- Mick Aston, Emeritus Professor of Landscape Archaeology, was given a Lifetime Achievement Award at the 2012 British Archaeological Awards.
- Clive Mason, a Teaching Fellow in the Centre for Deaf Studies, won Teacher of the Year for the South West region in the 2012 Signature Annual Awards.
- Libby Houston, Research Associate in Biological Sciences, was awarded the prestigious HH Bloomer medal by the Linnean Society for her contribution to natural history.

The engaged University

Public engagement at Bristol plays an important part in how we as a university connect and have dialogue with many of our key audiences.

The University's priorities in this area are to:

- support and promote dialogue with staff/students and the public;
- play a leading role in setting the national agenda on public engagement in higher education;
- respond positively to community needs;
- play a positive role in the affairs of the city, region and nation;
- nurture relationships with alumni and other friends of the University;
- behave responsibly as an institution.

Playing a positive role in the city

The University's Public Engagement strategy is set by the University's Engaged University Steering Group and is managed by the Centre for Public Engagement (CPE) within the University's Communications and Marketing Division. Over the past year CPE helped to organise a wide range of events, including:

- a festival, involving more than 200 academics and students, showcased research from across the University using 20 interactive exhibits. These ranged from life-sized model cows and images of trees carved by soldiers before going to war to giant structures showing the strength of nano materials. Over 1,500 members of the public and around 1,000 primary school children attended the event;
- ninety-one free public lectures and talks run by a variety of departments, which attracted over 20,000 people. Topics ranged from the psychology of language to using Twitter to assess public mood.
 A highlight was a public debate before the mayoral referendum, which attracted a capacity crowd;
- a new Festival of Arts, which included talks, concerts and workshops and showcased research from across the faculty;
- a collaboration with 16 other institutions to create an exhibit for the Royal Society's Summer Science Exhibition to mark the anniversary of the discovery of cosmic rays and the subsequent progress in particle and astrophysics research. The exhibition also travelled to the Bristol Balloon Fiesta, where school children accompanied cosmic ray detectors on balloon flights;

- a new festival of history, made possible by a generous bequest to the School of Historical Studies;
- a University presence at the 2012 Festival of Nature, which attracted over 10,000 people. For the first time our contribution to the Festival was almost entirely student-led and included a game for youngsters on optimising pollination strategies.

Setting the national agenda

The University has agreed funding for the National Co-ordinating Centre for Public Engagement (NCCPE) beyond the end of its current funding period. Areas of close collaboration include working with the Higher Education Funding Council for England (HEFCE) on the inclusion of public engagement as a route to impact for Research Excellence Framework (REF) 2014. This year, CPE led two sessions at the NCCPE conference on engaged learning and partnership working.

Responding to community needs

Bristol's Community Sport Programme has had another excellent year with more than 100 volunteer coaches and mentors from the University helping to promote sport and healthy living at the annual Festival of Sport. Over 1,300 school pupils took part in activities from football to Zumba classes.

A series of CPE-led events brought together researchers in History, Archaeology, Drama and Computer Science to explore Bristol's history and heritage. Members of the public brought some incredible memorabilia, including hand-drawn maps of the voyage of the *Titanic* and photographs depicting life in Bristol through the ages. The researchers are now working with community groups to develop follow-on projects, which should help bring Bristol's history to life.









Top: A young visitor to the University's exhibition at the Bristol Festival of Nature finds out about the workings of the body's immune system. Above: David Brodowski, leader of the University's string quartet in residence, the Brodowski Quartet, performs at a free lunchtime recital open to the public.

Top: Three former members of the 1952 St Barnabas school hockey team are reunited at a CPE-led Know Your South Bristol event, which used their team photograph on its flyer.

Above: The 'Know Your Fossil' stand at Bristol's Festival of Nature enabled visitors to share their knowledge of fossils.

Nurturing relationships with alumni

The University of Bristol is proud of its 100,000-plus alumni, and works closely with its alumni association, Convocation, to keep the sense of *alma mater* strong. Although the focus is on alumni in greater Bristol (around 11,000) and greater London (around 40,000), the University reaches out to alumni in more than 170 nations around the world.

More than 11,000 people now use Bristol alumni LinkedIn and Facebook pages, tens of thousands read regular Bristol e-newsletters, and the award-winning *Nonesuch* magazine is posted to Bristol alumni twice a year.

With strong support from the Convocation Committee and other alumni volunteers around the world, the University holds a wide range of alumni events. In 2011/12, these included receptions at the House of Commons, a 'new graduates London networking' event, a Bristol lecture by Professor Chris Stringer FRS (PhD 1973, DSc 1990, Hon LLD 2000), a talk in New York by human rights expert Professor Malcolm Evans, social events in Paris, Hong Kong, Victoria BC and Cambridge, and many more.

Perhaps the best evidence of the University's strong engagement with alumni and other supporters is that Bristol has more alumni donors than any other UK university, apart from Oxford and Cambridge. More than 6,500 alumni gave gifts in 2011/12, with 301 of these giving at Pioneer level (see pp27-28).

Estate development

The University continued to make substantial investment in its academic and residential estate throughout 2011/12, while ensuring that it operated in a financially responsible and sustainable manner.

The University's priorities in this area are to:

- provide all parts of the University with flexible accommodation which is of a quality, size and functionality appropriate to the activities to be delivered and which supports the University's vision;
- ensure the most efficient use of existing space and the development of capacity within the central precinct area wherever appropriate;
- continue to work to reduce carbon emissions and improve the sustainability of the physical estate;
- provide residential accommodation which is attractive to students in form, service and location;
- deliver an ambitious capital programme in support of the renewal of accommodation and the creation of adaptive capacity;
- provide an attractive, safe, accessible and welcoming setting for University buildings that is sympathetic to the wider urban context;
- produce a new Estate Strategy to inform future strategic decisions about the size, nature and direction of the University's estate.

An ambitious building programme

The University is committed to the largest estate investment programme in its history, with £200-million of projects likely to be completed by 2016. Three major projects have been foremost on the University's estates agenda in this past year and all have made good progress.

The Bristol Life Sciences building moved into its construction phase and the tower cranes that have been erected on St Michael's Hill dominate the Bristol skyline. The £54-million development, which will provide new teaching facilities and research laboratories for Biological Sciences and a range of related disciplines, will take shape over the coming year, and is due for completion in late 2013. The associated landscape will open up new routes from the historic Royal Fort to St Michael's Hill and will provide a beautiful backdrop for a range of University buildings.

Renovation of the Queen's Road Building, to be renamed the Richmond Building, continued throughout the year. The building is home to the Students' Union as well as the University's swimming pool. When complete the 1960s landmark will be totally refurbished inside and out at a cost of £28 million. The pool area and new changing facilities, together with a brand new entrance and foyer, will open in January 2013 and new space for the International Foundation programme and the International Office will follow later that month. The renovation of Union facilities will then start in earnest with the revitalised Anson Rooms due to complete in October 2013 and a range of new studio, club and society spaces and an extended café bar to follow in 2014.

The third major project is a commitment to build 327 new student bedrooms adjacent to Hiatt Baker Hall in Stoke Bishop. The University has gained planning consent for this development, which will include a new public transport hub to serve the highly successful University bus service to the site. Demolition work has already started and the scheme will be completed in time for the 2014 intake.

All three projects have been designed to the highest environmental standards and should achieve the BREEAM Excellent status. The Richmond Building will feature a combined heat and power energy centre, with waste heat being used to warm the pool water. The new residences will have arrays of solar panels that should generate up to 20 per cent of the power requirement. The elevations of the Life Sciences Building will be constructed in part from stone recovered from the buildings that previously stood on the site.

Planning for the future

During the year, a range of estate investments were completed. Two new surgery facilities for the School of Veterinary Sciences were opened at Langford Campus, one for small animal treatment and one for equine acute care, the latter with funding contributions from the Alborada Trust and the Donkey Sanctuary. On the Precinct, a new £1.2-million centre for Cell Biology research and teaching opened in the Medical Science Building. Two Victorian villas on Priory Road have been fully renovated to provide high-quality accommodation for Social Sciences and Law students. Elsewhere, the renovation of existing halls of residences continued apace with the next phase of Churchill Hall and the full refurbishment of Manor Hall starting in summer 2012.

In addition to the Richmond Building and residential projects, enhanced capacity and improved facilities for our student body will



Left and below right: An architect's impression of the Hiatt Baker Hall extension.

Below left: An architect's impression of the new Students' Union building.

Opposite top: An architect's impression of a laboratory in the new Life Sciences building.

Opposite bottom: An architect's impression of the exterior of the new Life Sciences building.





be provided by the creation of a range of social learning spaces in the Hawthorns at the heart of the campus, with similar new provision at Langford. The renovation of the Wills Memorial Library will continue the University's rolling programme investment in its library provision and new facilities will be provided for Arts students in Woodland Road and Cotham House. Lecture theatres are being renovated and design work has commenced for a new 400-seat theatre in Priory Road. Additional studio and gymnasium space was created over the summer in both the precinct sports centre and at Langford.

Setting the sustainability standard

The University's commitment towards sustainability continued throughout 2011/12. It achieved re-certifications for the internationally regarded environmental standard ISO14001 and energy efficiency standard ISO16064. Bristol is one of only two Russell Group universities to have achieved ISO14001 and hopes to be the first this year to include its curriculum in that accreditation. These certifications reflect the University's whole institution approach to sustainability and helped the University gain a first-class placing in the People and Planet Green League.

Reducing the University's carbon footprint

In 2011/12 the University continued implementing an agreed £10-million worth of carbon-reducing projects including:

- installing LED lighting and controls, replacing boilers, heating controls, pumps and ventilation and loft insulation throughout the University;
- completing the voltage-optimisation project, which has reduced electricity use by an average of 6 per cent across the University;
- installing low-loss transformers at the Stoke Bishop halls of residence, which together with the refurbishments at Churchill Hall and loft insulation/hot water measures at the electrically heated Badock Hall, has contributed to a 9 per cent reduction in electricity for halls of residence.

The part-refurbishment of the Drama department and Old Park Hill has reduced gas consumption by 33 per cent and 42 per cent respectively and electricity by 9 per cent.

In 2011/12 three solar installations came online, to bring the University's total capacity to 169kW, with an output equivalent to the annual consumption of 46 average homes.

Travelling in the right direction

The University's free cycle surgery was highly commended in the West of England Travel Plan awards in October 2011. The surgery has been developed, in partnership with the student environmental society (BUST), to offer free bike maintenance to cyclists and to transfer maintenance skills and knowledge. Now in its fourth year the surgery has two mechanics, running 30 surgeries a year, and services 30 bicycles a session.

In June 2012 the University secured £330,000 from the Government to help implement staff and student sustainable travel initiatives as part of a regional West of England Sustainable Travel (WEST) bid.

In partnership with Wessex Connect and the University of the West of England, the University's U6 bus service has been extremely popular during 2011/12, serving some 399,000 passengers throughout the year. There are plans to extend the route and frequency of the service in 2012/13.

Reducing waste

Student end-of-term reuse projects, including the Big Give project, saved five tonnes of reusable items from landfill benefitting 16 local charities and raising £30,000. A new reuse website Re-Store has helped to find new homes for 500 items of furniture within the University.

The University composted more than 250 tonnes of food waste from University sites, student halls of residences and catering outlets. This successfully diverted 10 per cent of the University's waste from landfill.

In 2011/12 the University recycled more than 77 per cent of its office waste, up from 65 per cent last year.

Green learning

The Higher Education Academy's Green Academy project, which began in 2010/11, has been extended in 2011/12 to include:





- mapping sustainability in all courses across the University;
- assisting departments in the teaching of sustainability;
- developing resources and training materials and setting out a future strategy.

The University also partnered the Bristol Student Hub – a student–led organisation helping ethical and environmental groups at the University – to provide training in sustainability skills, such as carbon and waste auditing, and to organise other learning opportunities. These included a 'green' version of *Dragons' Den* and a series of talks, including one from environmentalist Jonathon Porritt. The University's Green Impact Awards scheme – an accreditation scheme for environmental best practice based on more than 130 actions that help departments to reduce their negative impact on the environment – launched a hospital scheme piloted with the University Hospitals Bristol Trust. Next year the Green Impact Awards will be extended to other hospitals as well as to more than 50 universities in the UK.

Information technology and libraries

In August 2011 the University's Information Services was replaced by two separate organisations: Library Services and IT Services. These two organisations continue to support the delivery of the University's learning and teaching, and research and enterprise activities. Some of the achievements of both organisations are outlined below.

The University's priorities in this area are to:

- provide IT and library facilities to support education, learning and teaching and to enhance the student experience;
- provide IT and library facilities to support research activities and enhance research impact;
- support the University's business objectives by providing efficient and effective processes enabled by well-designed, integrated information systems;
- ensure that our IT Strategy is people-focused and that all members of the University are well supported, trained and equipped to fulfil their roles;
- provide excellent, responsive and resilient IT services for all members of the University;
- develop sustainable approaches to the provision of IT, in order to minimise the impact on the environment.

Library services

From its ten branches the University Library serves over 18,500 users, including academic staff, students and members of the wider research community. It offers a wide range of services, including the provision of printed and electronic information, lending services, a scanning service compliant with the Copyright Licensing Agency (CLA), inter-library loans and a variety of study spaces, as well as training and expert advice in finding and using information, and reciprocal borrowing schemes.

The Library's key aims are to:

- provide a welcoming and accessible environment, with flexible spaces in which students can learn and interact;
- provide a wide range of published and unpublished material, including sufficient copies of, or access to, all items on student reading lists;
- manage physical, digital and staff resources in a consultative and cost-effective way.

A welcoming and accessible environment

The refurbishment of the first and second floors of the Arts and Social Sciences Library was completed over the summer of 2011. Student feedback about the remodelled library has been extremely positive, and use of the library has increased dramatically.

In the spring of 2012, the Library introduced a significant increase to opening hours at seven branch libraries, including the introduction of 24/7 opening at the Arts and Social Sciences Library during the summer term revision period, which included the Easter holiday and Bank holidays. At the other branches, weekend and evening opening hours were extended.

The design phase of the Wills Memorial Library refurbishment was completed in the spring of 2012, after consultation with academic staff and students whose feedback was incorporated into the design. The contractor Bray & Slaughter was appointed, and preparatory work began in June 2012. The refurbishment will be completed in two phases: the first, which began in summer 2012, will last until February 2013; the second will take place in summer 2013.

Learning resources

Significant increases in the Library's book budget between 2009/10 and 2011/12 have brought the Library's book expenditure into line with other Russell Group universities, and by the end of this academic year, £600,000 will have been spent on books.

The eReserves scanning service was rolled out in 78 subject areas (164 units) in the Arts, Social Sciences and Science faculties. The service provides scanned book chapters to students via Blackboard and has been used by 6,471 students. Academic staff and student feedback has been very positive, and the 2011 National Student Survey (NSS) scores for library services and resources improved in all of the subject areas which benefited from the service.

Efficiency and cost effectiveness

Initiatives to improve the efficiency and effectiveness of the service have included the merger of the Dental Library with the Medical Library, and the further roll out of 'shelf-ready books' in which book suppliers, rather than Library staff, carry out the processing of purchased items. To address the issue of journal-price inflation, the Library participated in an initiative of Russell Group librarians that aimed to convince publishers to reduce their prices. Negotiations with two of the largest publishers whose subscriptions were due for renewal in January 2012 were concluded satisfactorily, and journal cancellations were avoided.

IT Services

In August 2011 a separate IT Services organisation was launched with the aim of improving the efficiency of the University's IT processes and to reduce inefficient IT procurement and duplication of effort in developing IT solutions. IT Services is now a smaller, more focused organisation, managed centrally while maintaining local provision through geographical, zonal teams. Common policy, standards and operational processes are being defined, supported by the introduction of Service Level Agreements and a central Service Desk to handle all IT related requests.

Support for education, learning and teaching

IT Services is introducing a new email and calendar service for the University provided by Google. Google provides an easy-to-use email system, which is accessible anywhere, and has substantially increased storage space. Around 11,000 students are already using the student email-for-life service, and a staff pilot service is underway.

To support the growing use of mobile devices the wireless network has been extended to cover study bedrooms in student accommodation. The University has also worked with Bristol City Council to provide access to the eduroam service in council libraries and public areas, and has launched a mobile support website **bristol.ac.uk/it-services/mobile** to help students and staff access University services via their smartphones and tablets.

A new Technology Enhanced Learning Strategy has been approved, which will lead to further enhancements to services such as MyBristol portal, the Blackboard online learning environment and social learning spaces for students.



An undergraduate uses one of the self-issue machines in the Medical Library.



Network castles and hardware in the Department of Electronic Engineering.

Enabling research

BlueCrystal, the University's High Performance Computing (HPC) facility, continues to support research and teaching across the University. The University, in collaboration with e-Infrastructure South partners, was awarded £3.8 million from EPSRC to create the Centre for Innovation regional HPC facility. BluePeta, the Research Data Storage Facility, provides for secure, resilient long-term storage of research data.

IT Services is also working to establish a research data repository service, data.bris.ac.uk, which builds on the investment already made in research data. The service is being piloted within the Faculty of Arts with the aim of extending the model across the University. It is also implementing Atira Pure to provide a new repository for research outputs and staff CVs. This system will be critically important in assembling the University's response to the next Research Excellence Framework (REF).

A number of projects led by IT Services' research and development group illustrate how the University is meeting its commitment to enable easy, anytime, anywhere access to research materials. These include:

- the University of Bristol Collections as Linked Open Data (BRICOLAGE) project, which will make catalogue information for two of the University's most significant collections – the Penguin Archive, a comprehensive collection of the publisher's papers and books; and the Geology Museum, a 100,000-specimen collection housing many unique and irreplaceable resources – accessible for presentation online;
- PlantTracker, a smartphone app for the Environment Agency and NERC Centre for Ecology & Hydrology, which helps crowd-source the distribution of three particularly invasive, non-native species: Japanese Knotweed, Himalayan Balsam and Floating Pennywort.

Developing business processes

In 2011/12 a total of 13 systems projects were completed, including a new timetabling system and timesheet system for research projects. A further 18 projects are still in progress, including new coursebooking and e-recruitment systems for HR, new systems for the Theatre Collection, a new estates-management system and an online booking system for sports facilities.

Alumni distinctions and honorary degrees

Bristol alumni are an exceptional group of individuals. We highlight some of those whose contributions were recognised by external organisations in 2011/12:

Professor Desmond Smith OBE (BSc 1952, DSc 1966) was awarded the Royal Medal from the Royal Society of Edinburgh.

Professor Kenneth Morgan (BSc 1966, PhD 1969) became a Fellow of the Learned Society of Wales in 2011.

Dr David Milne OBE (MSc 1967, PhD 1969, Honorary DEng 2007) was awarded the Royal Medal from the Royal Society of Edinburgh.

Stephen Howard Davies (Cert 1968) collected the Olivier Award for Best Director for his production of *The White Guard*. Guy Fetherstonhaugh QC (BSc 1977) became an honorary member of the Royal Institute of Chartered Surveyors in 2011.

Jacqui Molyneux (BSc 1979, BVSc 1981) was invested as the new president of the Royal College of Veterinary Surgeons in July 2012.

Professor Sir Mark Welland (MSc 1981, PhD 1984) was awarded the 'Office of the Secretary of Defence Medal for Exceptional Public Service' by the US Department of Defence, and the 'The NNSA Gold Medal' for 'outstanding leadership and wise counsel as Chief Scientific Advisor to the United Kingdom' by the US Department of Energy. Michelle McDowell (BSc 1984) won the title of Veuve Clicquot Business Woman of the Year 2011.

Peter Darling (BA 1985) won a Laurence Olivier award for Theatre Choreographer for his work on *Matilda: The Musical*.

Dr Robert Buckingham (PhD 1992) was elected as a Fellow of the Royal Academy of Engineering in July 2012.

Myles McLeod (BSc 1996, MSc 2000) won a BAFTA at the British Academy Children's Awards with his production company The Brothers McLeod, for their show *Quiff and Boot*.

Every year, the University awards its own distinctions. Below we list all those who received **honorary degrees** from Bristol in 2011/12 in recognition of outstanding achievement.

Kate Adie OBE Journalist, correspondent, author and presenter; former reporter at BBC Bristol, Doctor of Laws.

Professor Mary Beard Professor of Classics at the University of Cambridge; TV presenter and author, Doctor of Letters.

Professor Graham Fleming (BSc 1971) Distinguished physical chemist; Vice-Chancellor for Research at the University of California, Berkeley, Doctor of Science.

Peter Hargreaves and Stephen Lansdown Co-founders of financial advisers Hargreaves Lansdown, Doctor of Laws.

Graham Harrison Partnership Director of SETsquared; former Director of International Business at the South West of England Regional Development Agency, Doctor of Engineering. Professor David Harvey Leading geographer and one of the world's most influential social scientists; former member of staff at the University of Bristol, Doctor of Science.

Dame Denise Holt (BA 1970) Former British diplomat, Doctor of Letters.

Sir Stephen Laws (LLB 1972) Former First Parliamentary Counsel, Doctor of Laws.

Michelle McDowell MBE (BSc 1984) Chair of the Building Design Partnership; award-winning civil engineer, Doctor of Engineering.

Derek Pretty Former Registrar and Secretary at the University of Bristol, Doctor of Laws.

Professor Ray Priest (BEd 1978) Principal of the City Academy, Doctor of Laws.

Professor Sidney Ricketts (BSc 1968, BVSc 1971) World-leading equine veterinary practitioner; lecturer at University of Bristol, Doctor of Science. Maxine Room CBE (BEd 1979, MEd 1993) Principal of Lewisham College, Doctor of Laws.

Alastair Sawday Bristol-based publisher; Chair of the Green Capital Partnership, Doctor of Letters.

Tim Stevenson Former company director; former member of the University's Council, Doctor of Laws.

Dame Clare Tickell (Cert 1986) Chief Executive of Action for Children, Doctor of Laws.

Michael Winterbottom (Cert 1983) Film director, Doctor of Letters.

Dr Julie Wright (Cert 1975, MLitt 1978, PhD 1983) Theatre director; Director of the Wapping Project, Doctor of Letters.

Angela Yeoman OBE Non-executive director of Aggregate Industries; longstanding contributor to the community and charities in Somerset, Doctor of Laws.

Philanthropy

Gifts to the University enable our researchers to address some of the world's most important questions and help to enrich and support the experience we provide for our students during their time at Bristol. In 2011/12, a record 7,200 alumni and friends, staff and students, companies and charities contributed to Bristol. We thank each and every one of them, and list Bristol Pioneers here.

In 2011/12:

- Bristol's Centenary Campaign, which was launched in 2009, topped £83.5 million in cash and pledges. We are now in the home stretch towards our December 2014 goal of £100 million.
- Bristol benefitted from the third highest rate of support among UK universities, with more than 6,500 alumni making gifts.
- Individual donors who give £1,000 or more in a year – known as Bristol Pioneers – numbered 359 in 2011/12, and altogether contributed over £1.3 million to Bristol. In recognition of their generosity, we list Bristol's Pioneers here.

2011/12 Bristol Pioneers

£25,000+

Mr Richard M Campbell-Breeden (BSc 1984) Mrs Samantha Campbell-Breeden Dr John M Davis Mr W Raymond S Hill (BSc 1934) Mrs Kate Holmes Mr Roger A Holmes (BSc 1981) Dr Bhikhu C Patel (BA 1973, Diploma 1975, Honorary LLD 2006) Mr Andrew R Thornhill QC Mrs Helen M Thornhill (Livingston) (LLB 1966) Mr Alexander S Wilmot-Sitwell (BA 1983)

£5,000-£24,999

Dr John M H Andrews (BSc 1969, PhD 1973) Mrs Linda J Andrews (Barker) (BA 1971) Mr Simon D J Beddow (LLB 1986) Mr Andrew E J Burton (BA 1988) Mrs Anna-Marie Burton Professor David Clarke Mr John E Coverdale (BSc 1977) Dr A Peter Cox (DSc 1973) Mr William G R Davies (BSc 1971) Mr Peter K Estlin (BSc 1982) Mr Steven L J Everett (BSc 1993) Mrs Elinor Goldsmith Dr Stuart A Goldsmith (BA 1966, Honorary LLD 2007) Mr Mark D Greaves (BA 1984) Harriet's Trust Professor Lucy A Henry (BSc 1986) Mr Tim Herrington (LLB 1975) Mr Anthony Hinchliffe (MB ChB 1960, ChM 1971) Mr John C Jenkins Dr Ian J E Keil (BA 1955, PhD 1965) Mrs Teresa Keil Ely Jacques Khan III Mr Anthony H W Luckhurst (BSc 1974, MSc 1975) Mr Charles D Z Martin (LLB 1982) Mr Alastair J G Matchett (BSc 1991, MSc 1993) Dr Alasdair A D McKerrell (PhD 1981) Mrs Catrin Morgan (Jones) (BA 1990) Mr Neill F Morgan (BA 1990) Mr Timothy A C Page (LLB 1985) Perivoli Trust Mr John K Pitts (BSc 1948) Mr John D W Pocock (BSc 1982) Mrs Judi Ritchie Mr Timothy Ritchie (BA 1978) Mr Geoffrey H Rowley (BA 1958, Honorary LLD 2011) Mr William J Rucker (BSc 1984)

Ms Lesley G Silvester (Jackson) (BA 1968) Mr Nigel W Wray (BSc 1970, Honorary LLD 2005)

£1,000-£4,999

Mr Marc Abbey (Erasmus 1986) Mr Simon T Aird (BSc 1993) Mr Abdulla H M H R Al Darmaki Mr Gati S Al-Jebouri (BEng 1990) Mrs Nicole J Allalouf (Ronson) (BA 1994) Mr Simon Allen (BSc 1978) Dr Stephen A Allpress (BEng 1990, PhD 1994) Mr Murat Atac Mr David M J Attwood (BSc 2008) Dr Gerald Avison (BSc 1962, PhD 1967) Mr Allan Aw (BSc 1971) Mr Gavin Bacon (LLB 1979) Dr Adebola O Bada (MB ChB 1969) Mr Richard J M Baker (BSc 1983) Ms Henrietta C Baldock (BSc 1992) Dr Celia E Bangham (MB ChB 1977) Dr Amitava Basak Mrs Shyamali Basak Mr John S M Beckwith-Smith (BEng 1993) Mr Mike Bedingfield (BSc 1960) Mr Philip J Beer (LLB 1995) Mr John E Benson (BSc 1976) Mr Sandy Bhogal (LLB 1996, LLM 1997) Mrs Monica R Bhogal (Patel) (LLB 1996, Diploma 1997) Dr Gerald F Bigwood (MB ChB 1947) Dame Carol Mary Black (Herbert) (BA 1962, MB ChB 1970, MD 1975, Honorary DSc 2003) Mr Graham H Blyth (BSc 1969) Lady Boateng (Alleyne) The Lord Boateng (LLB 1973, Honorary LLD 2007) Mr Alex S Brooks (BSc 1998) Ms Aileen Broomfield (BSc 1984) Dr Susan M Burge OBE (Adams) (BSc 1971) Mr Denis A S Burn (BSc 1975) Mr James Burstall (BA 1987) Dr Jennifer I Burston (Lewis) (MB ChB 1962) Mr Michael N Bussell (BSc 1966) Mrs Alison M Bye (Hill) (BA 1965) Mr Peter G Bye (BSc 1965) Ms Jane A Camblin (Day) (BA 1973) Professor Nishan Canagarajah Mrs Lorraine M Casson Mr Norman S D H Casson (LLB 1969) Professor Peter Cawley (BSc 1975, PhD 1979) Mr Nigel S Cawthorne (BSc 1970) Mr Mark O Cawthron (LLB 1978)

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Mr Philip J A Stear (Diploma 1995) Ms Clelia Steele Mr Adam M D M Steiner (BA 1993) Dr Peter R Stock (MB ChB 1957) Mr Anthony M Stockil (BA 1987) Mr Mark N Stuart-Smith (BA 1985) Mr Andrew Sulston (BA 1991) Mr Geoffrey J Swales (BSc 1981) Mr Robert L Sweeney (BSc 1954) Dr Peter J Szanto (BSc 1975, MSc 1976, PhD 1981) Dr Rosalyn M Stanbury (Stanbury) (BSc 1975, MB ChB 1980) Mr Hoie K Tan Mr Ben A J Taylor (BSc 2001) Mr Julian R Taylor (LLB 1985) Mr Mark H Teeger (BSc 1994) Mr Nicholas M Tett Dr Timothy R Thom (Honorary LLD 2008) Professor Eric J Thomas (Honorary LLD 2004) Mrs Narell Thomas Dr Sarah J Thompson (Edmondson) (MB ChB 1987) Mr Stephen J Thompson (BSc 1985) Mr Robin Thring (BSc 1947) Sir James Tidmarsh (Honorary LLD 2002) Lady Virginia Tidmarsh Ms Clare P Timms (BA 1981) Mr Patrick L C To (BSc 1973) Mr Otto Tokvam (LDS 1964) Mr Mark R Vickers (LLB 1987) Dr Nicolas J Wadsworth (BSc 1951, PhD 1955) Dr Martin R Wales (BSc 1988) Mr Christopher R Wallis (BSc 1978) Mr Antony H C Wardell (BSc 1980) Professor Avril E Waterman-Pearson (Waterman) (BVSc 1970, PhD 1979) Dr Pauline F Waters (Haswell/Stevenson) (MB ChB 1956) Dr Thomas C Waters (MB ChB 1957) Mrs Julia M Wathen (Richardson) (BSc 1972) Mr Simon W J Wathen (LLB 1972) Dr Christopher M K Watts (BSc 1966, PhD 1969) Mrs Veronica M Watts (James) (BA 1969) Mr David Weatherburn (LLB 1984) Mr Jonathan M Webb (MB ChB 1987) Professor Michael Welch MD (MB ChB 1966, Honorary MD 2006) Mr Clive J Wells (LLB 1987) Mr Stephen R Weston (BSc 1997) Mr Jonathan Wheatley (BA 1959) Mr Edward T Whitley (BSc 1976) Mr Anthony K Williams (BSc 1962) Mr Peter G Williams (BSc 1952) Mrs Kathryn Wills (Matthews) (BSc 1981) Mr Rupert Wills (BSc 1982) Mr Michael K Wingenroth (BSc 1993) Mr Kung W E Wong (LLB 1987) Miss Ruth M Woollons (BA 1952, Cert Ed 1954) Dr Christopher A Wright (BSc 1968, PhD 1971) Mrs Jov Wright Mr Simon M Wright (BSc 1986) Mr Basim N Ziadeh (MSc 1975) Dr Allen Zimbler

A further 31 Pioneers have asked to remain anonymous.

Thanks to the following organisations, which have made significant contributions to the University in the past year:

The A. G. Leventis Foundation All In One, Park Street AstraZeneca plo ATTIC Teal Coldharbour Boad Bechtel Ltd BHP Billiton Ltd The Botanist, Clifton Triangle BP plc The Brass Pig, Clifton Triangle Bristol Zoo Gardens The Burger Joint, Whiteladies Road Citrina Foundation The Conservation, Food & Health Foundation Deli Delish Cotham Hill Deutsche Bank AG Enid Linder Foundation Ernst & Young Foundation The Fortuna Charitable Trust The Gerald Ronson Foundation GOTEC Polska Sp. z o.o. The Great Britain Sasakawa Foundation Harriet's Trust Heritage Lottery Fund HK Diner Park Street Institute for Aegean Prehistory The J P Moulton Charitable Foundation The John C Jenkins Charitable Lead Annuity Trust The John James Bristol Foundation The John Oldacre Foundation The Lalonde Charitable Trust The Langford Trust for Animal Health and Welfare Linbury Trust The Lloyd Robinson Family Charitable Trust Lush. Broadmead The Magic Roll, Clifton Triangle Medlock Charitable Trust Morgan Stanley Motorola Mobility Foundation National Eye Research Centre North Bristol NHS Trust Medical Staff Fund The Oak Foundation The Orpheus Cinema, Henleaze Papa Costa, Clifton Triangle The Patrick Berthoud Charitable Trust People'sTrust for Endangered Species Perivoli Trust Pizza Provencale, Clifton Village Populus The Priory Foundation Q.E.D Bistro, St Michael's Hill Rajmoni, Queen's Road The Real Wrap Company, Clifton Triangle The Rock Solid Trust Rosetrees Trust Royal Dutch Shell plc The Serth Gates Charity The Ship Inn, Park Row Sir Samuel Scott of Yews Trust Ski Club Of Great Britain Sonardyne Group Ltd Sport England Stavros S. Niarchos Foundation The Steel Charitable Trust The Tubney Charitable Trust UBS AG The Waterloo Foundation The Wolfson Foundation

A further two organisations have asked to remain anonymous.

Council members

Lay members (19)

Mr James Wadsworth – Treasurer Cllr Simon Cook – Bristol City Council Mr Andrew Garrad – Society of Merchant Venturers Mr Bill Ray – Convocation

Elected by Court

Mr Denis Burn (Chair) Mr Roy Cowap Mr Colin Green Dr Moira Hamlin Sir Ronald Kerr Dr John Manley Mrs Dinah Moore Mr Bob Morton (Vice-Chair) Mr Andrew Poolman Mr David Ord Mrs Cindy Peck Mr Mohammed Saddiq Ms Victoria Stace Ms Anne Stephenson Mr James Wetz

University members (10)

Professor Eric Thomas – Vice-Chancellor Professor David Clarke – Deputy Vice-Chancellor Professor Nick Lieven – Pro Vice-Chancellor Professor Guy Orpen – Pro Vice-Chancellor

Elected members of the academic staff

Professor Gary Foster Professor Roger Middleton Dr Esther Crawley Dr Trevor Thompson

Elected members of the non-academic staff

Ms Pru Lawrence-Archer Mr Tony Macdonald

Students (3)

Mr Paul Charlton – President of the Students' Union Mr Tom Flynn – Vice-President of the Students' Union Ms Alessandra Berti – Vice-President of the Students' Union

Produced by

Public Relations Office Communications Division Senate House Tyndall Avenue Bristol BS8 1TH

Design www.robsondowry.co.uk

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2011 2012



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