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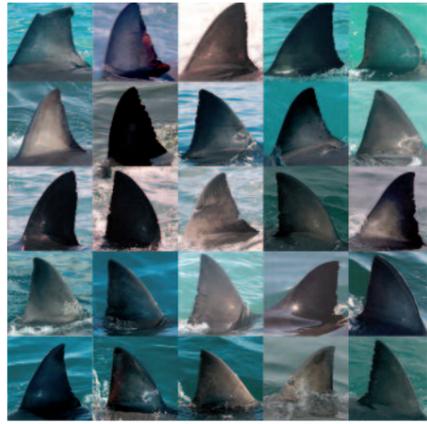
Review of the year

2010/11

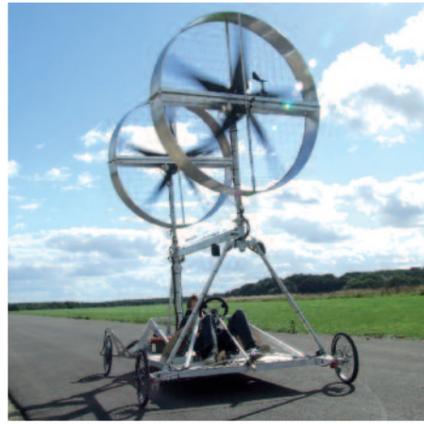


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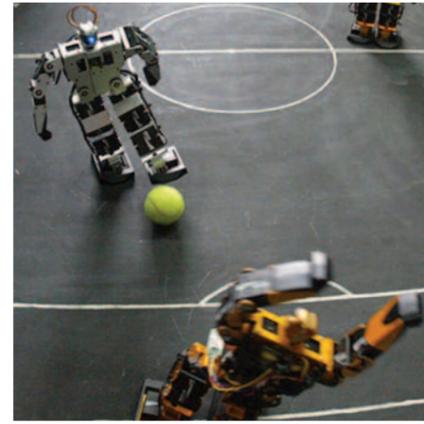
MICHAEL SCHOLL



DAVE DRURY



JAMIE CARSTAIRS



LORRAINE FIELD



NATHANIEL HARRAN



ALBERTO CABELLO



ANNE COOKE



2010/11 The year in pictures

August

Fins and fingerprints

Dr Tilo Burghardt from the Department of Computer Science launched a collaborative project with the White Shark Trust to build a visual database of Great White Sharks. The 'computer vision' identification system will be able to recognise and archive the features of the sharks' dorsal fins (which are as unique as humans' fingerprints), helping researchers to track individual species.

September

Giving wind power a spin

A team of staff and students from the Faculty of Engineering took their wind-powered car to Denmark to compete at the Aeolus Wind-Powered Car Race (part of the Aeolus Wind Energy Project). Team Bristol's design was the only electric vehicle to complete the course under wind power.

October

Tiny blooms

Amborella trichopoda, the world's most ancient flowering plant, bloomed at the University's Botanic Garden – one of only a handful of gardens worldwide to have grown the plant successfully. Pictured is the female flower.

February

Robotics Lab wins World Cup hosting bid

It was announced that the Bristol Robotics Lab – a collaboration between the universities of Bristol and the West of England – will host the FIRA RoboWorld Cup 2012, featuring the world's most advanced autonomous robots. Alongside this, a major scientific conference, the FIRA/TAROS Congress, will bring together the world's leading experts in robotics.

March

Bristol graduate scoops Oscar

Andrew Ruhemann, a 1985 graduate of the Department of Drama: Theatre, Film, Television, won an Academy Award for his short animated film, *The Lost Thing*, based on an illustrated book by Shaun Tan, who co-directed.

April

Bristol pupils go Olympic

London 2012 Olympic mascots Wenlock and Mandeville welcomed over 1,300 Bristol school pupils to the 2011 Bristol Festival of School Sport and Culture. During the three-day event, the youngsters tried a range of sports, met London 2012 hopefuls, and got the chance to win an Olympic School Spirit Trophy.

November

Pictures from an eruption

Scientists from Bristol were among a group visiting the Afar Rift in Ethiopia in November when a volcano in the region began erupting – the first time that scientists have witnessed such an occurrence there. Among the photographs and videos taken by Lorraine Field, a PhD student in Earth Sciences, was this image.

December

Art takes on science

Works by the winners of the Art of Science Competition, run annually by the Faculty of Medical and Veterinary Sciences, went on display at The Bristol Gallery. Pictured is a digital radiograph of roses, taken by Nathaniel Harran during a clinical teaching session about the physics of X-rays at the University's Veterinary Hospital.

January

Wikipedia creator visits Bristol

Jimmy Wales, the founder of Wikipedia, gave a public talk at the University's Victoria Rooms to mark the online encyclopedia's tenth anniversary. The event was hosted by the University in association with Bristol Festival of Ideas, HP Labs, Bristol City Council and Wikimedia UK.

May

Dylan's back pages

The Department of English hosted a conference to reflect on the career and work of Bob Dylan on the occasion of his 70th birthday. The event was attended by the UK's foremost Dylan scholars and attracted considerable media attention.

June

Yarn invasion at Science Museum

Members of Bristol Neuroscience – the University's network of researchers into the brain and nervous system – brought neuroscience to the public at the Science Museum in London. The Bristol contingent joined with University College London Neuroscience to present 'Knit a Neuron' – a yarn-led approach to neuroscience, pioneered by Dr Anne Cooke from Bristol Neuroscience and Dr Helen Featherstone from the University of the West of England.

July

Stream of successes

Graduating students and their friends and families had a new perspective on the graduation ceremonies, thanks to the first live streaming of the event on the University's website. Several thousand people around the world watched proceedings at various times.

Introduction

Right: Eric Thomas, Vice-Chancellor

Far right: Denis Burn, Chairman, University Council



This review of 2010/11 complements our formal Annual Report and Financial Statements and provides just a few highlights of our many successes and achievements.

Our students benefit from an intellectually demanding, research-informed education. We are dedicated to academic endeavour at the highest level and encourage independence of mind. This underpins our world-leading research and supports our students to maximise their full potential and to serve society's needs across the globe, both during and after their time at Bristol.

Council, the governing body of the University, plays a key role in maintaining our

world-leading position, ensuring that our cutting-edge research and education continue to be at the top of their game.

This is without doubt one of the most challenging times for higher education, both in terms of the financial landscape and as a result of the unprecedented rate of change we see across the sector. However, among the challenges there is also opportunity, and, as you will see in this review, we are well positioned for both, remaining true to our vision and our strengths and continuing to gain recognition as a world-leading university.

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 2010/11 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:

- | | | |
|---|--|---|
| <p>Truth We seek and are inspired by truth, which we pursue for its own sake</p> <p>Excellence We strive for the highest quality in all we do</p> <p>Innovation We welcome the challenge of the new and value the creative and entrepreneurial</p> <p>Ambition We have high aspirations for the University and all its staff, students and alumni</p> | <p>Responsibility We aim to make a positive difference to the wider world and the future</p> <p>Independence We encourage independent thinking and cherish academic and institutional autonomy</p> <p>Collaboration We are committed to teamwork and to partnership with others</p> | <p>Transparency We want to be accountable for our decisions and actions</p> <p>Diversity We view the diversity of our staff, students and alumni as a great asset</p> <p>Equity We believe in the equitable treatment of all</p> |
|---|--|---|

Right: Wills Memorial Building



NICK RIDDLE



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

With employability becoming an essential criterion for graduates entering an increasingly competitive jobs market, the Careers Service offers a growing range of services for students, including job-hunting workshops and courses, a telephone helpline, placements, a funded internship programme for Bristol graduates, and targeted careers advice (for example, advice aimed at international students).

The Bristol PLuS Award was launched by the Careers Service to recognise students' extra-curricular achievements and help them articulate to potential employers the range of life skills they gained in the process. Following the success of Bristol PLuS in its pilot year (including coverage in *The Guardian*), 2010/11 saw a 75% increase in students registering for the award (812) and a 64% increase in the number of students completing (270, of which 51 attained the Outstanding Award). The award programme includes Intensive Skills Days (jointly presented by the Careers Service and a number of employers), which blend theory, practical interaction, case studies and tutor/peer feedback to ensure that students get a good overview of the skills needed by employers.

Among the employers sponsoring or endorsing the Bristol PLuS Awards in 2010/11 were Ernst & Young, Airbus, The College of Law, Rolls-Royce, TeachFirst, Unilever, Cancer Research UK and the NHS Graduate Management Training Scheme. Such support from businesses is a reflection of the increase in employer involvement cultivated by staff at the Careers Service.

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 International Student Barometer. In the NSS, 87% of Bristol respondents expressed satisfaction overall (against a national average of 83%) and 84% were satisfied with the learning resources provision; subject-specific scores improved in the majority of subjects.

Schemes introduced to address the issues raised in these and other surveys included an initiative entitled 'You Said, We Listened' and consultation with the Students' Union on improving student representation.

New Doctoral Training Centre for the region

The University, in collaboration with the universities of Exeter and Bath, has created the South West Doctoral Training Centre (SWDTC), which is accredited by the Economic and Social Research Council (ESRC) and has been allocated 41 ESRC studentships annually. The SWDTC's training programme will span the breadth of the social sciences, from economics and human geography to quantitative methodology and psychology. The centre will prepare doctoral students for careers in the global economy by equipping them to make outstanding contributions to future environmental, economic, political and social development.

Enterprise education: supporting student entrepreneurs

Research and Enterprise Development (RED) has developed new services and events aimed at introducing students to the possibilities and strategies of modern

Education and the student experience continued



Far left: Local sixth-formers encounter Stan, a human patient simulator in the AIMS Centre for Excellence in Teaching and Learning, during a Widening Participation summer school.

Left: Year 12 students participating in the Royal Society of Chemistry's Schools Analytical Chemistry Competition, hosted by the University.

Right: Students at PCs in the Arts and Social Sciences Library.

Far right: A session at the Multimedia Centre in the School of Modern Languages.



entrepreneurship. These range from a 'BeerMat Business Challenge', introduced via the annual New Enterprise Competition (see p11); a wider range of postgraduate enterprise support including new events on scientific communication and start-ups; and Basecamp, a student business support service providing start-up advice, space, funds and networking opportunities for student entrepreneurs. RED's Student Enterprise team received an Outstanding Impact Award from the organisers of Global Entrepreneurship Week 2010 for its work during that week.

Admissions and widening participation

The University's Widening Participation Strategy 2009-2016: Realising Potential continues to be the guiding document for our efforts in attracting the 'most able but least likely' students to Bristol.

Among the activities in 2010/11 was the Access to Bristol Scheme, which now offers 15 subject streams and hosted 320 students from over 40 local schools. A graduation ceremony was held for 450 attendees, including parents, teachers and careers advisers. The University also retained the Frank Buttle Trust Quality Mark for supporting care leavers (initially awarded in 2009/10). In addition, 61 local schools and colleges took part in Aimhigher-funded activities involving 5,000 young people and 1,500 parents and carers.

Help on the move

The experience of students and visitors to the University has been enhanced by several projects developed by MyMobileBristol, a JISC-funded collaboration between the University and Bristol City Council. MyMobileBristol builds on the Mobile Campus Assistant, a website accessible to anyone with a smartphone that pulls information from around the University precinct and from external websites to provide users with time- and location-sensitive data.

One such offering is the University of Bristol Walking Tour, a new iPhone app that directs visitors around the precinct and provides information about University buildings and facilities. There are plans to produce a printed version of the tour for those unable to access the app.

Teacher training gets Ofsted top grade

The Graduate School of Education (GSOE) was awarded 'Outstanding Provider Status' following an Ofsted Secondary Initial Teacher Training Inspection in February 2011. The GSOE works in partnership with 70 schools to provide secondary initial teacher education courses, and offers PGCE training in Citizenship, English, Geography, History, Mathematics, Modern Foreign Languages, Music, Religious Education and Science.

Key strengths of the programme highlighted in the report include: recruitment procedures that identify trainees with the potential to be good and often outstanding teachers; personalised support and feedback from both the GSOE and partner schools; and highly effective use of current practitioners from within the partnership to support the professional studies programme.

Bristol ChemLabS wins *Times Higher Education Award*

Bristol ChemLabS has won the *Times Higher Education Award* 2010 for 'Outstanding ICT Initiative of the Year', thanks to its work in the field of interactive learning technology. The JISC-sponsored award recognises an initiative that demonstrates an innovative and potentially far-reaching use of ICT in support of the institution's goals. Bristol ChemLabS was recognised for the high level of both innovation and impact associated with its Dynamic Laboratory Manual (developed by Bristol ChemLabS staff and Learning Science Ltd). The e-learning tool enables users to carry out 'virtual' experiments and practise laboratory techniques before they step into the teaching laboratory to do the real thing.

Accolade for 'Whole Person Care' course

The University has received the Innovations Award for Education from the College of

Medicine for its innovative approach to educating students in patient-centred care – and specifically for its undergraduate 'Whole Person Care' (WPC) course, led by the School of Social and Community Medicine. The course ensures that all first-year medical students receive foundation training in whole-person care, and includes teaching on systems thinking, the therapeutic relationship, the arts in healthcare, creativity and integrative medicine.

New online 'eBiolabs' resources support first-year BSc students

The School of Physiology and Pharmacology has introduced interactive, web-based support for first-year undergraduate practical teaching. The initiative is an extension of the JISC-funded eBiolabs system (developed in collaboration with Learning Science Ltd), introduced in 2009 by the School of Biochemistry.

The tools enable students to access web-based resources to help them to prepare for lab sessions, and to upload their reports from the sessions. Also included are web-based tasks to be completed after every lab session, on which students receive feedback; and simulations that allow students to rehearse challenging procedures. Funding comes from the UK Centre for Bioscience, the University's Alumni Association and the Teaching Quality Enhancement Fund.

Supporting and rewarding teaching staff

University Teaching Fellowships

University Teaching Fellowships – launched in 2009/10 to complement the Research Fellowship scheme – were awarded in 2010/11 to Susan Hooper (School of Oral and Dental Sciences) and Dr Rich Harris (School of Geographical Sciences) for the 2011/12 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 judged by a panel of Education Directors, chaired by Professor Avril Waterman-Pearson, the Pro Vice-Chancellor for Education.

The University Teaching and Learning Awards, which recognise excellent teachers, were given this year to:

Colin Dalton

Merchant Venturers School of Engineering

Dr Gordon Gray

School of Oral and Dental Sciences

Dr Stephen James

School of Humanities

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 Dan Butt

School of Sociology, Politics and International Studies

Dr Zuzana Deans

School of Social and Community Medicine

Dr Miguel Rico-Ramirez

Queen's School of Engineering

Dr Annela Seddon

School of Physics

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 **Dr Marc Holderied** (School of Biological Sciences).

The University also acknowledges the contributions of support staff to teaching and learning provision. The University Awards Recognising Support for Learning and Teaching for 2010 went to:

Caroline Higgins

Merchant Venturers School of Engineering

Sue Holwell

School of Biological Sciences

Heather Fuller

School of Clinical Veterinary Science

Education and the student experience continued

Statistics and commentary

Financial support to students

The University can provide financial support to students in the form of bursaries, scholarships and discretionary assistance from hardship funds. In 2010/11, the University disbursed the following amounts in these kinds of financial support:

| | Bursaries £m | Scholarships £m | Hardship funds £m |
|---------------|------------------|--------------------|----------------------|
| Undergraduate | 3,176,922 | 324,850 | 285,037 |
| Postgraduate | 141,693 | 2,289,430 | 54,971 |
| Total | 3,318,615 | 2,614,280 | 340,008 |

Total student numbers 2010/11

| | Undergraduate | Postgraduate taught | Postgraduate research | Total |
|---------------------------------|------------------------|-----------------------|-----------------------|---------------|
| Arts | 2,721 (78.96%) | 435 (12.62%) | 290 (8.42%) | 3,446 |
| Science | 2,912 (81.64%) | 131 (3.67%) | 524 (14.69%) | 3,567 |
| Engineering | 1,829 (70.73%) | 421 (16.28%) | 336 (12.99%) | 2,586 |
| Medical and Veterinary Sciences | 1,499 (82.18%) | 85 (4.66%) | 240 (13.16%) | 1,824 |
| Medicine and Dentistry | 1,677 (69.93%) | 549 (22.89%) | 172 (7.18%) | 2,398 |
| Social Sciences and Law | 2,544 (49.46%) | 2,024 (39.35%) | 576 (11.19%) | 5,144 |
| Year total | 13,182 (69.51%) | 3,645 (19.22%) | 2,138 (11.27%) | 18,965 |

Total student numbers 2009/10

| | Undergraduate | Postgraduate taught | Postgraduate research | Total |
|---------------------------------|------------------------|-----------------------|-----------------------|---------------|
| Arts | 2,727 (81.60%) | 363 (10.86%) | 252 (7.54%) | 3,342 |
| Science | 2,831 (80.75%) | 111 (3.17%) | 564 (16.08%) | 3,506 |
| Engineering | 1,735 (69.76%) | 425 (17.09%) | 327 (13.15%) | 2,487 |
| Medical and Veterinary Sciences | 1,469 (81.21%) | 99 (5.47%) | 241 (13.32%) | 1,809 |
| Medicine and Dentistry | 1,693 (72.29%) | 463 (19.77%) | 186 (7.94%) | 2,342 |
| Social Sciences and Law | 2,613 (55.23%) | 1,554 (32.85%) | 564 (11.92%) | 4,731 |
| Year total | 13,068 (71.74%) | 3,015 (16.55%) | 2,134 (11.71%) | 18,217 |

Number of degrees awarded

| | 2010/11 | 2009/10 |
|-----------------------|---------|---------|
| Undergraduate | 3,110 | 3,028 |
| Postgraduate taught | 1,869 | 1,739 |
| Postgraduate research | 564 | 533 |

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 2010 | | Graduate destinations 2009 | |
|------------------------------|-------|------------------------------|-------|
| Full-time paid work | 53.8% | Full-time paid work | 50.0% |
| Part-time paid work | 6.1% | Part-time paid work | 6.1% |
| Voluntary/unpaid work | 2.5% | Voluntary/unpaid work | 2.4% |
| Work and further study | 5.2% | Work and further study | 6.0% |
| Further study | 20.4% | Further study | 21.5% |
| Assumed to be unemployed | 5.5% | Assumed to be unemployed | 6.1% |
| Not available for employment | 3.7% | Not available for employment | 4.8% |
| Other | 1.0% | Other | 1.2% |
| Explicit refusal | 1.8% | Explicit refusal | 1.9% |

Research

The University's research activity tackles 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 institute addresses global uncertainty

Some of the most pressing environmental issues facing the modern world are to be addressed by the University's Cabot Institute, which was launched in November 2010 and brings together world-leading researchers in science, engineering, social sciences and law.

A discussion panel event marking the launch featured speakers including Sir Crispin Tickell, Director of Policy Foresight Programme; the Hon Sir Jonathon Porritt, Founder Director of Forum for the Future; Julie Hill of the Green Alliance; Brendon Gormley, Chief Executive of the Disasters Emergency Committee; and Professor Ric Parker, Rolls-Royce Director of Research and Technology. The first director of the Cabot Institute is Professor Paul Bates from the School of Geographical Sciences.

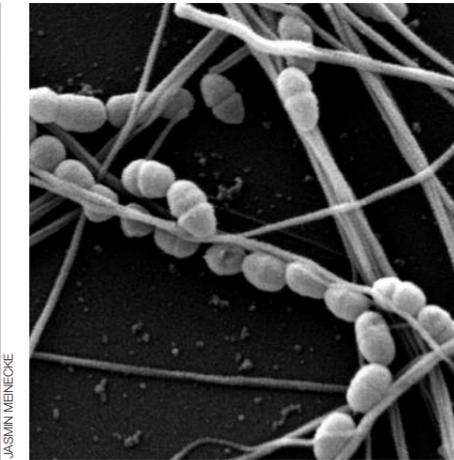
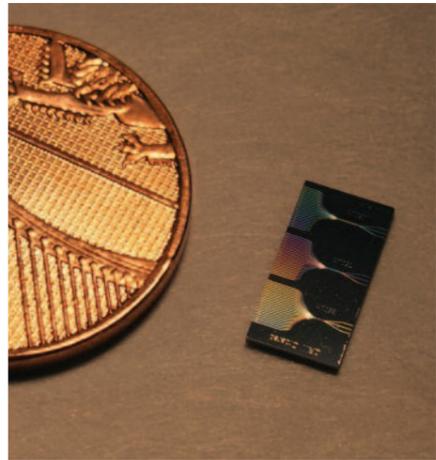
Historic China explored

The history of modern China before the Cultural Revolution is being pieced together by researchers including Professor Robert Bickers from the Department of Historical Studies, whose new book *The Scramble for China: Foreign Devils in the Qing Empire, 1832-1914* tells the epic story of foreign impact on China from the early 19th century to the start of the First World War. *The Sunday Times* praised the book as 'compelling, erudite and clear-sighted'. Professor Bickers is also the Director of the Historical Photographs of China (HPC) project, which after several years of collecting and digitising images has developed into the JISC-funded Visualising China, an online resource that offers access



Above: Young man on a 'motorbike' in a photographer's studio, probably in Shanghai, c1950. Print purchased in a junk shop, Jing'an district, Shanghai, 2010.

Research continued



Far left: A photonic chip next to a UK penny. The chip contains micrometer and sub-micrometer features and guides light using a network of waveguides.

Left: Streptococcal cells attached to collagen fibrils, illustrating another mechanism by which they may promote disease after entering the bloodstream – by binding to, for example, heart valves and causing blood clots.

to major collections such as HPC, the Sir Robert Hart Collection (Queen's University, Belfast) and Joseph Needham's Photographs of Wartime China (Needham Research Institute, Cambridge). Also featured are previously unseen and private collections and a Google Books library of China-related publications. Visualising China, a collaboration with the University's Institute for Learning and Research Technology, was launched in July.

Optical chip enables new approach to quantum computing

An international group led by Bristol's Centre for Quantum Photonics has developed a new approach to quantum computing that could represent a faster route to a quantum computer – a powerful type of computer that uses quantum bits (qubits) rather than the conventional bits used in today's computers, and can therefore hold and process a much larger amount of information at a greater rate. The group includes researchers from Tohoku University, Japan, the Weizmann Institute in Israel and the University of Twente in the Netherlands.

The technique developed in Bristol uses two identical particles of light (photons) moving along a network of circuits in a silicon chip to perform an experiment known as a

quantum walk. A quantum computer based on a multi-photon quantum walk could be used to simulate processes governed by quantum mechanics, such as superconductivity and photosynthesis. Other possible applications include designing high-tech materials, new pharmaceuticals, and more efficient solar cells.

'The move to a multi-photon device is relatively straightforward, but the results will be just as exciting,' said Professor Jeremy O'Brien, Director of the Centre for Quantum Photonics. 'This is very much the beginning of a new field in quantum information science, and will pave the way to quantum computers that will help us understand the most complex scientific problems.'

Novel approach to chronic pain relief

A collaboration involving the universities of Bristol, Toronto and Seoul has found the basis for a novel approach to more effective, targeted relief of chronic pain caused by nerve injuries.

A protein molecule known as PKM zeta is required to store memories, and chronic pain involves a malfunctioning in this neural process, causing an individual to re-experience pain as the memory of it

persists. The new research, having detected the cause of this malfunction, has identified a target for the treatment of neuropathic pain. By inhibiting PKM zeta in a part of the brain involved in the perception of pain in a mouse model, the international team has been able to eliminate the painful memory responsible for chronic pain.

Professor Graham Collingridge, from the University's MRC Centre for Synaptic Plasticity, and part of the Bristol Neuroscience network, said: 'It may be possible one day to treat some forms of chronic pain by inhibiting PKM zeta or other molecules involved in the storage of the painful memory. The challenge will be to target the drug so that it inhibits painful memories but not other forms of memory.'

'Jailbreak' bacteria can trigger heart disease

Bacteria that cause dental plaque can move from the mouth into the bloodstream and increase the risk of heart attack, according to research by the School of Oral and Dental Sciences and the Royal College of Surgeons in Ireland (RCSI).

'Poor dental hygiene can lead to bleeding gums, providing *Streptococcus* bacteria with an escape route into the bloodstream,' said Professor Howard Jenkinson. 'These

bacteria use a protein on their surface, called PadA, as a weapon to force platelets in the blood to bind together and form clots. These completely encase the bacteria, providing a protective cover not only from the immune system, but also from antibiotics that might be used to treat infection. As well as helping out the bacteria, platelet clumping can cause small blood clots, growths on the heart valves (endocarditis) or inflammation of blood vessels that can block the blood supply to the heart and brain.'

The team is using a new blood-flow model, developed by Dr Steve Kerrigan at the RCSI, that mimics conditions in the human circulatory system, to investigate how the platelet-activating function of PadA can be blocked. This could lead to new treatments for cardiovascular disease, the biggest killer in the developed world.

UK researchers release draft sequence coverage of wheat genome

The first sequence coverage of the wheat genome has been released by a team of UK researchers, including Professor Keith Edwards and Dr Gary Barker at the School of Biological Sciences. This major step towards a fully annotated genome is a significant contribution to efforts to support global food security and to increase the competitiveness of UK farming. The work was funded by the Biotechnology and Biological Sciences Research Council (BBSRC).

The wheat genome is five times larger than the human genome and presents a huge challenge for scientists. These 'raw' draft sequences give scientists access to 95 per cent of all wheat genes (a complete copy of the genome requires further revisions, annotations and the assembly of the data into chromosomes). Understanding the genetic differences between varieties will enable development of new types of wheat better able to cope with drought or salinity, and to deliver higher yields.

This is one of the largest genome projects undertaken to date, and the rapid public

release of the data (a condition of the original BBSRC support for this project) is expected to accelerate the use of the information by wheat breeding companies. The team also included researchers from the University of Liverpool and the John Innes Centre, a BBSRC-funded institute.

'Honour-based' violence study makes international impact

Research by Professor Gill Hague and Dr Nazand Begikhani from the School for Policy Studies into 'honour-based' violence and honour killings in Iraqi Kurdistan and the UK has earned plaudits from the Foreign and Commonwealth Office and the UN.

The study, conducted with colleagues from the University of Roehampton, assessed the nature and extent of such violence (which is carried out against family members, most often women, by other family members, most often men), and evaluated the impact of these practices on women's experiences in Kurdish communities. Attention was paid to cultural and family traditions, and to media representations of Kurdish ideas concerning gender relations and family honour.

The study was described by Alistair Burt, former Minister for the Middle East, as offering 'a roadmap to combating honour-based violence in Iraqi Kurdistan'. The Kurdistan Regional Government supported the study in order to get a better understanding of the nature and consequences of this violence and abuse, and the findings have already led to legislation to reduce violence against women and crimes in the name of honour.

Bristol New Enterprise Competition

The winner of the University's 2011 New Enterprise Competition (organised by Research and Enterprise Development to inspire new business ideas and entrepreneurial talent among students, staff and recent graduates) was Avishek Banerjee, a teaching assistant in the Department of Mechanical Engineering, for SunHub, which aims to provide sustainable lighting to the poorest communities in rural



Above: An ear of wheat being prepared for pollination and crossing in the glasshouse, School of Biological Sciences.

India. Small solar panel charging stations can provide enough electricity to charge low-power LED lanterns, giving customers a higher quality lighting service at a lower price than the existing kerosene lamps.

The second-place winners were Spyglass Technologies (Engineering Mathematics PhD student Oliver Payton, and Dr Loren Picco and Professor Mervyn Miles from the School of Physics), for a novel Atomic Force Microscope, considerably cheaper than the nearest competitor, which requires no special training to operate.

In joint third place were William Goodwin, a final-year civil engineer, for EventBand, which uses Radio Frequency Identification wristbands to provide proof-of-identity and cashless payment systems for festivals; and Mark Caldwell, a final-year computer scientist, for ChirpID, a smartphone application that identifies bird species from audible birdsong.

This year's competition entries were judged by a panel of industry experts from sponsoring organisations including Bristol City Council, Deloitte, EADS, Jones Lang LaSalle, IP Group, Motorola, Osborne Clarke, Santander, SETSquared Business Acceleration Centre (Bristol) and Wyvern Seed Fund.

Research continued

Grants

The University attracted a total of £105 million in grants during 2010/11. This included the following:

Over **£2 million** from the European Research Council to Professor Nigel Smart in the Department of Computer Science for an examination of the various methods designed to ensure that cryptographic protocols are secure. Cryptography is widely used to hide information and applications include cash machines, computer passwords and internet communications. The project will focus on advanced cryptographic protocols, which enable various security-related functions, such as identifying who you are, securing data, or performing a given operation securely. The protocols to be examined include those currently underlying mobile phone and internet communications, as well as in emerging areas such as electronic voting.

Over **£1 million** to Dr Morag McDermont at the Law School by the European Research Council for a four-year investigation into how UK advice agencies (principally Citizens Advice) mediate between citizens and the practices of law, in order to understand how people experience law in their everyday lives.

£800,000 to Professor Derek Offord in the Department of Russian from the Arts and Humanities Research Council to conduct the first large-scale history of the French language in Russia, from the early 18th century, through its rise as the language of the political and social elite, to its decline following the October Revolution of 1917.

Over **£2 million** from the Medical Research Council for a project in the School of Physiology and Pharmacology looking into the neural network basis of learning, memory and decision-making in health and disease. The majority of the grant will fund Dr Matt Jones' research into the use of electrical stimulation techniques to control the brain's electrical signalling and improve cognitive performance in patients with schizophrenia and other disorders.

£6 million over six years from the Engineering and Physical Sciences Research Council to a team from the University's Advanced Composites Centre for Innovation and Science (led by Professor Michael Wisnom) and the Composites Centre at Imperial College London (led by Professor Alexander Bismarck) to develop a new generation of high-performance, fibre-reinforced polymer composites. Current materials, though strong and stiff, are inherently brittle, and failure can be sudden and catastrophic. More robust materials will provide greater reliability and safety, reduced design and maintenance requirements, and longer service life.

£1.2 million from the National Institute for Health Research for a survey of the types of treatment available for pre-school children with speech and language difficulties. The study – the first of its kind in the country – will be led by Professor Sue Roulstone (Research Fellow in the School of Clinical Sciences and Clinical Research Director at

the Speech and Language Therapy Research Unit at Frenchay Hospital) and carried out by North Bristol NHS Trust in partnership with the universities of Bristol and the West of England and Manchester Metropolitan University. Barnardo's and Afasic England are also supporting the project.

Almost **£0.5 million** to a team led by Professor Mark Duffield from the University's Global Insecurities Centre in the School of Sociology, Politics and International Studies and Dr Sarah Collinson of the Humanitarian Policy Group, Overseas Development Institute, London, for a project on risk management in conflict-affected states. The two-year project, which began in October 2010, is funded by the Department for International Development and the Economic and Social Research Council as part of its Security, Conflict and Development theme.

Students

Every year, our 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.

Good works: 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 Union's Raising and Giving (RAG) and Student Volunteering (formerly Student Community Action) 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 2010/11, RAG activities raised a total of £109,573 through a varied programme that included street collections, skydiving, trekking in Nepal, and a revival of the traditional RAG procession through the streets of Bristol. Two undergraduates set a new record in the annual RAG Jailbreak Challenge: Physics student Emma Blott and Music student Mary Spender made it all the way to Perth in Australia – a journey of 9,113 miles – in 36 hours, comfortably beating the previous record (Arizona, USA).

Student Volunteering

During 2010/11, Student Volunteering ran 31 student-led projects involving over 1,000 students, and ran 10 different training programmes, reaching over 400 new volunteers. A new initiative has established a student self-help group for those suffering from eating disorders, and is to be followed with a new programme of student peer mentoring. Other developments include a wider range of support to older and isolated people, and an employability and training

programme for young adults with learning disabilities (run by students together with MENCAP).

The organisers of one Student Volunteering project, the Daycentre Lunch Club, received a vintpired award (from v, the UK's young volunteers' service) in January for their volunteering and community engagement work. The Lunch Club organises events and trips for the city's senior residents.

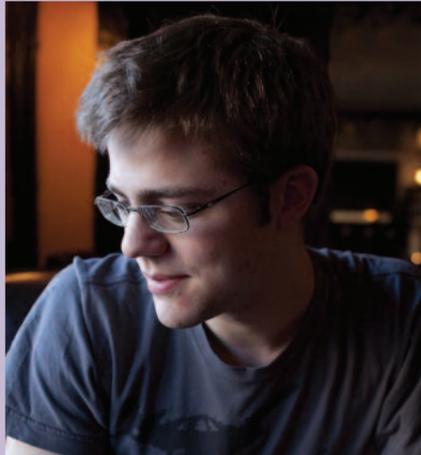
Jonathan Broad, a medical student at Bristol, was awarded the 2011 Matt Spencer Award from Volunteering England, an independent charity committed to supporting and celebrating volunteering. Jonathan's community engagement work includes taking musical entertainment into residential homes and teaching English at a refugee centre. He also established Foodcycle, a project in which students collect surplus food from shops and deliver it to people affected by food poverty.

PhD student fronts UK science and engineering campaign

Owen Rackham, a PhD student in the Bristol Centre for Complexity Sciences, has been chosen to lead a nationwide campaign communicating the impact of science, engineering and maths on our everyday lives. He will attend festivals and events around the country as part of NOISE (New Outlooks In Science and Engineering), a UK-wide campaign funded by the Engineering and Physical Sciences Research Council. He will also talk to the public about his own research, which examines whether it is possible to re-programme human cells for a range of medical applications.

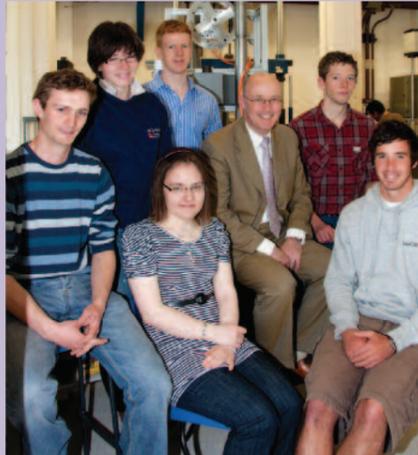
Students continued

Student awards and prizes



Above: Chris Strand

Above right: The winners of the RAE Leadership Advanced Awards (clockwise from left): Peter Symes-Thompson, Alex Bradford, Adam Moss, Professor Nick Lieven (former Dean of Engineering and now Pro Vice-Chancellor), Alex Creak, Joe Smith and Sophie Sladen.



ANN FETHERS

awards. He received the Airbus Award for Best Aeronautical Engineering Student for his project entitled 'Vision-Based Recovery of a Rotary Wing UAV'. The international awards programme provides a showcase for educational excellence by recognising the exceptional achievements of students and universities.

Bristol surgeon wins prestigious award for research paper

Pradeep Narayan, Senior Registrar in Cardiothoracic Surgery at the Bristol Heart Institute and a postgraduate at the University, became the first UK winner of the Hans G Borst Award for Thoracic Aortic Surgery. He won for his study of the treatment options for conditions affecting the descending thoracic aorta – the lower part of the main artery of the body inside the chest.

PhD student wins award at Systems Biology conference

Tom Goroehowski, a PhD student at the Bristol Centre for Complexity Sciences, was commended for his work at the International Conference on Systems Biology. His poster, illustrating a computational toolkit for investigating network dynamics and evolution, was selected as the best in its category in the Computational Methods and Tools Session.

Students win gold at MIT competition for precision farming prototype

A design for 'precision farming' created by a student team from the Centre for Complexity Sciences was shortlisted from over 100 entries at the 2010 International Genetically Engineered Machine competition, hosted by the Massachusetts Institute of Technology (MIT). The team's prototype design, AgrEcoli, could allow farmers to map the

nutrient content of their fields with a device that uses modified *E.coli* bacteria contained in biodegradable beads that can detect and signal the presence of nitrates. This approach could help to optimise their use of fertiliser. AgrEcoli received a gold medal and the award for the Best Food or Energy Project; and overall, the team was one of three runners-up.

PhD student wins Emma Humphreys Memorial Prize

Finn MacKay, a PhD student at the Centre for Gender and Violence Research, won the Emma Humphreys Memorial Prize for her extensive work on tackling violence against women. MacKay has been active in the women's movement since her adolescence, and speaks regularly on issues of women's rights, particularly violence against women. In a professional capacity she has managed and delivered domestic violence prevention and education programmes in schools and communities. Her research is on the Reclaim the Night marches, which began in Britain in the 1970s. In 2006 she featured in *The Guardian's* list of 15 world-changing British women.

Engineering students bag Boeing awards

Six students from the Faculty of Engineering have been awarded prizes from The Boeing Company for their outstanding academic performance in the field of integrated aerospace systems. Bridget White and Joshua Shimmin received scholarships for their final year of study, and James Wilcox, Samantha Huntley, Sky Sartorius and Ben Buxton received awards for their final projects. The range of their work covers intelligent vehicles, fluid mechanics, helicopter design and ultrasound radio echoes.



Above: Hannah Eastwood

Above right: Finn Mackay



NICK SMITH

Bristol student is first female Young Scientist of the Year

Hannah Eastwood, a first-year undergraduate studying veterinary science, was named Young Scientist of the Year at the UK Young Scientists' and Engineers' Fair. She is the first woman to have been awarded a senior title in the competition. Her winning project explored how chromium can be removed from drinking water, enabling tap water to be purified and reclaimed for the steel industry, where it is a valuable resource.

PhD student wins award for obesity research

Laura Wilkinson, a PhD student in the School of Experimental Psychology, won the Association for the Study of Obesity's Student Researcher 2011 Award. Her paper, 'Attachment anxiety, disinhibited eating and body-mass index in adulthood', published in the *International Journal of Obesity*, provides compelling

evidence that adults with an 'anxious' attachment orientation (a set of ideas and expectations around interpersonal relationships characterised by a fear of abandonment) are more likely to overeat and have a high body-mass index.

Dental student wins for innovative view of the future

Laura Cove, a third-year Bristol dental student, won an Award for Innovation in a new competition run by 3M ESPE, a leading provider of dental products and services. Entrants were required to submit up to 500 words describing their dental practice in the year 2020. They were judged on their ability to demonstrate an innovative approach, their consideration of future changes in general dentistry and their understanding of how the introduction of new technologies will help deliver better patient care.

Staff

The University continues to focus on making Bristol a compelling and attractive destination for highly talented academic and support staff. The range and quality of the work undertaken by academic and support staff continues to inspire, and we report on some outstanding examples of collective and individual achievement below.

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

Work continued throughout 2010/11 on the Support Process Review (SPR), a major restructuring of support services aimed at achieving greater effectiveness and a saving of £6 million when fully implemented. In support of this change, the Human Resources (HR) Operations team:

- developed, negotiated and implemented the policy and procedures that provided the protocol for moving some 1,200 support staff from existing roles and structures into new roles and structures;
- communicated the implementation methodology to all staff and provided support to managers and those individuals affected by the changes;
- developed and implemented a new approach to managing the redeployment of staff at risk of redundancy as a result of the restructuring;
- implemented a voluntary severance/early retirement scheme, which attracted over 400 applications, of which around 130 have been accepted and around 270 declined; and
- introduced system changes to accommodate the restructuring and issued letters and new contracts confirming the position of all staff in the new structures.

The team also supported the academic restructuring programme to deliver savings of £9 million in staff costs. Although the University has been in formal dispute with the University and College Union (UCU) over the threat of compulsory redundancy, effective negotiation led to the changes being made without triggering a ballot for

industrial action and without recourse to compulsory redundancy in the majority of cases.

Throughout the period, the team continued to provide the full range of 'business as usual' advice, guidance, case support and personnel administration for managers and staff across the University.

Organisational development

In 2010/11, the Organisational Development (OD) team adjusted its activity to support strategic change initiatives, bringing greater focus and increased its impact to its work. In particular, the team was heavily involved in supporting implementation of the SPR programme. Activities included:

- working with process owners to identify key cultural issues and agree approaches to overcome challenges;
- promoting the adoption of the Association of University Administrators 'behaviours' framework to help realise the long-term benefits of SPR;
- implementing a development programme to help key middle managers cope with, and lead, change in their areas;
- developing and implementing a 'Creating Excellence Programme', designed to support the new teams and new ways of working, and to provide coaching support to new team leaders;
- establishing a Heads of School working group to explore how SPR affects the academic leadership role and redefines some key working relationships, as well as offering a forum for exchange of ideas and feedback;

- providing a package of 'outplacement' support to staff leaving the University under the voluntary severance/early retirement schemes.

Other key activities and achievements within OD included:

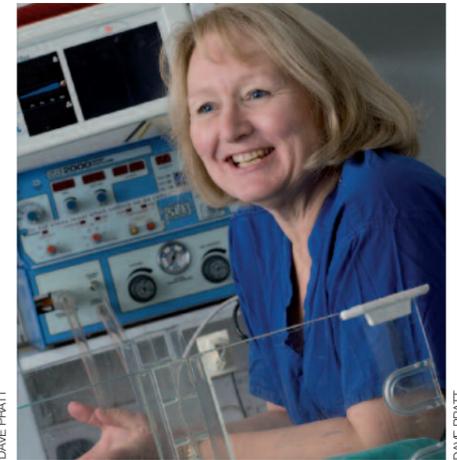
- continued development and delivery of the academic development programme, to enhance the transferable and leadership skills of academic staff;
- launch of the 2010-2013 Staff Development Strategy;
- delivery of the third cohort of the Leadership and Development Programme, currently being delivered to 17 senior academic and four senior support staff;
- development of new policy and guidance to support the implementation of the Equality Act 2010;
- achievement of Investors in People reaccreditation in support services for a further year.

The year has been significant in relation to the University's two final salary pension schemes. After preparatory work in early 2010, the University of Bristol Pension and Assurance Scheme was closed to new members, existing members' contributions were increased to preserve the benefits structure and a defined contribution pension scheme was introduced for new staff. Changes were also proposed for the Universities Superannuation Scheme. Although this is a sector-wide scheme, the statutory consultation had to be managed locally. The UCU mounted a national campaign against the changes, including industrial action, but the changes were ratified and will take effect in October 2011.

As part of the SPR programme, HR has been subject to major restructuring, with operational HR support now being delivered by distributed faculty/divisional teams co-located in multi-function teams, physically closer to those they support. The OD team now encompasses Resourcing, Systems and Policy Development, as well as



Above: Dr Anne Cooke



Above right: Marianne Thoresen, Professor of Neonatal Medicine

Equality and Diversity, Change and Staff Development. A major review of operational processes was undertaken and this represents the first phase of a complete review of processes, procedures and, where necessary, policy.

Equality and diversity

The University's commitment to diversity remains a priority. The work of the Equality and Diversity team has focused on positioning the University to respond positively to the requirements of the Equality Act 2010, and working collaboratively with colleagues across support services and academic schools to better equip staff to support an increasingly diverse staff and student body. Activities undertaken by the team in 2010/11 to help sustain a productive and positive environment where all University members feel valued and supported included:

- undertaking a review of the Equality and Diversity website and key University policy to better inform staff of their responsibilities in relation to the Equality Act 2010;

- enabling closer collaboration between members of the Disabled Staff Forum and Estates on issues connected to accessibility when planning any major works/refurbishments to University buildings;
- commissioning research on managing working lives, the initial focus of which will be on managing the career trajectories and aspirations of senior female support staff who take time out of the workplace to have children; and
- in collaboration with the Carers Support Group, developing guidance for managers on better supporting staff who are balancing work with caring for elderly, disabled or ill dependants.

HR excellence in research

The University gained a coveted European Commission award in recognition of its commitment to ensuring good working conditions and career development for its researchers. The European Commission HR Excellence in Research badge aims to encourage a step-change in the way that

Staff continued



DAVE PRATT



DAVE PRATT



JASON INGRAM



JASON INGRAM

Top left: Professor Malcolm Evans
Top right: Professor Saadeh Suleiman
Bottom left: Professor Fiona Steele
Bottom right: Professor Mervyn Miles

universities across Europe recruit, manage and develop researchers. The award entitles the University to use the badge to demonstrate its excellence in the career management of its researchers. The Bristol team behind the award was led by Dr Alison Leggett, Staff Development Manager from the Organisational Development function, with support from Equality and Diversity colleagues and research staff.

Internal awards

Dr Anne Cooke, facilitator for Bristol Neuroscience, won the 2011 University of Bristol Engagement Award. Dr Cooke has pioneered engagement in the neuroscience community, establishing an annual week of engagement activities for Brain Awareness Week, running numerous schools activities and ensuring that Bristol Neuroscience takes every opportunity to be part of engagement projects.

Marianne Thoresen, Professor of Neonatal Neuroscience in the School of Clinical Sciences, won the inaugural Vice-Chancellor's Impact Award for her ground-breaking research into cooling the injured brains of newborn babies.

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 are as follows:

- Malcolm Evans OBE, Professor of Public International Law, was appointed a member of the Government's Human Rights Advisory Group. The group has been established to give the Foreign Secretary the best possible information about human rights challenges, and for the Foreign Office to benefit from outside advice on the conduct of its policy. Professor Evans was also made chair of the United Nations (UN) Subcommittee on Prevention of Torture, the largest international torture-prevention body in the UN human rights treaty system.
- The Vice-Chancellor, Professor Eric Thomas, was elected the next President of Universities UK, the key body representing universities to many stakeholders, including Government. He takes up the role from August 2011.

Fellowships and professional appointments

Many members of staff represent the University through prestigious Fellowships and membership of professional organisations. 2010/11 saw the following appointments, among others:

- Ian Manners, Professor of Inorganic, Macromolecular and Materials Chemistry, and Professor Mervyn Miles, Head of the Nanophysics and Soft Matter Group in the School of Physics, were elected Fellows of the Royal Society.

- Saadeh Suleiman, Professor of Cardiac Physiology, was elected a Fellow of the International Academy of Cardiovascular Sciences.
- Wendy Larnar, Professor of Human Geography and Sociology in the School of Geographical Sciences, was elected an Academician of the Academy of Social Sciences for her research into globalisation, governance and gender.
- Gianni Angelini, British Heart Foundation Professor of Cardiac Surgery at Bristol University and Imperial College London, and Paul Martin, Professor of Cell Biology in the Schools of Biochemistry, and Physiology and Pharmacology, were elected to the Fellowship of the Academy of Medical Sciences.
- Professor of Exercise and Health Sciences Ken Fox received a Fellowship by Distinction of the Faculty of Public Health of the Royal College of Physicians for his contribution to physical activity research and policy, the first award of its kind.
- Emeritus Professor Peter Roberts in the School of Physiology and Pharmacology was elected to an Honorary Fellowship of the British Pharmacological Society.

Awards and prizes

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

- Professor Mervyn Miles in the School of Physics and Professor Mark Cannell in the School of Physiology and Pharmacology were awarded Royal Society Wolfson Research Merit Awards.
- Fiona Steele, FBA, Professor of Social Statistics, and Professor Ron Johnston, FBA, of the School of Geographical Sciences, were awarded OBEs in the Queen's New Year Honours and Birthday Honours, respectively.
- Professor Martin Lowson, Senior Research Fellow in the Department of Aerospace Engineering, won the American

Institute of Aeronautics and Astronautics Aeroacoustics Award.

- Professor Guy Lloyd-Jones in the School of Chemistry was awarded the 2010 GSK/AZ/Pfizer/Syngenta UK Prize for Process Chemistry Research.
- Brian Vincent, Emeritus Professor of Physical Chemistry, received the 2010 Overbeek Gold Medal from the European Colloid and Interface Society.
- Jeremy O'Brien, Professorial Research Fellow in Physics and Electrical Engineering, was named joint winner for the Daiwa Adrian Prize.
- Four early-career researchers received Philip Leverhulme Prizes for outstanding achievement: Dr Grace Brockington (Historical Studies), Dr Tim Browning (Maths), Dr Dan Lunt (Geographical Sciences) and Dr Nick Teanby (Earth Sciences).
- A lifetime achievement award was presented to David May, FRS FREng, Professor of Computer Science, at the 2010 Elektra Electronics Industry Awards.
- Bristol Dental School and Hospital swept the boards at the 2010 Dental Defence Union Educational Awards, with Professor Stephen Lisney winning the Dental Teacher of the Year award and Nikki Rogers named Dental Care Professional Teacher of the Year.

- Dr Brad West in the School of Sociology, Politics and International Studies won the Journal of Sociology Best Paper prize 2009-10.
- Dr Tom Richardson in the Department of Aerospace Engineering won the Aerospace category in The Engineer Technology and Innovation Awards for his part in developing auto-landing system technology.
- Professor Martyn Tranter in the School of Geographical Sciences received the Polar Medal for his numerous field seasons in the Arctic and Antarctic.

- Dr James Wookey in the School of Earth Sciences received the Royal Astronomical Society's Fowler Award for his research into the properties of the Earth's deep interior.
- Professor Steve Mann in the School of Chemistry was the 2011 winner of the Royal Society of Chemistry (RSC) de Gennes Prize and Medal, while Professor Dek Woolfson won the 2011 RSC Medimmune Protein and Peptide Science Award and Professor Fred Manby won the 2011 RSC Corday-Morgan Prize.
- Dr Adrian Seymour in the School of Biological Sciences was named a 2011 National Geographic Emerging Explorer.
- Professor Michael Perryman, Visiting Fellow in the School of Physics, received the European Astronomical Society Tycho Brahe Prize.
- Professor Sandu Popescu in the School of Physics was awarded the University of Toronto's John Stewart Bell Prize for contributions to the field of quantum mechanics.
- Professor Susan Harrow of the Department of French was awarded the grade of Officier dans l'Ordre des Palmes Académiques for services to French culture.

The engaged University

Public engagement at Bristol plays an important role in the University's communications activities and encompasses the many ways in which staff and students connect with the public, from talks, festivals, volunteering and performances to research with or driven by community and public groups.

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 Graduate School of Education led a series of cross-sector workshops with leaders from around the city about improving outcomes for young people, and engaged with local head teachers about how the University can best work with their schools. Three members of University staff are governors of the Merchants Academy, in which the University is a partner. The Academy's recent Ofsted report described great improvements in the school.

The University plays a leading role in Science City Bristol. The Vice-Chancellor chairs its Advisory Board, and the Centre for Public Engagement (CPE), within the Communications and Marketing Division, is involved in its public engagement activities.

The University is well represented on many of the Bristol City Partnership's Boards, covering areas such as health and well-being, sustainable communities and raising the aspiration of children and young people.

Supporting and promoting dialogue

Examples of activities in 2010/11 include a public events programme that provided opportunities for the public to engage with staff and students, and work that supported academics to develop their own engagement activities.

The public events programme for the year included the following:

- The CPE-run Changing Perspectives project, which explored what happens when the worlds of art and science collide. It included two exhibitions, comprising art that either resulted from collaborations between University researchers and artists, or was produced by academics and students themselves; a programme of talks and workshops; and a family-

orientated weekend with circus performers and a marquee full of research-related interactive exhibits.

Over 120 academics and students were involved, and the events attracted over 4,500 members of the public.

- Twenty-three public talks, delivered at venues around Bristol, on subjects as diverse as 'Doctors and their gardens', 'Multiculturalism today', 'The use of stem cells' and the alternative vote. Over 1,300 people attended a talk.
- Nineteen public lectures organised by the Public and Ceremonial Events Office (also part of the Communications and Marketing Division).
- A range of public events hosted by the Departments of Music and Drama and the Botanic Garden.
- A CPE-hosted Charter Day event to celebrate the legacy of the University's centenary. About 70 people, including members of the public, staff and students, gathered to experience an art installation produced by Drama student Francesca Murray, where soundbites from three of the centenary lectures were projected on to the Jeppe Hein sculpture in Royal Fort Gardens.
- Two CPE-hosted exhibition tents, on 'Biodiversity is Life' and 'Technologies for the Future', at the annual Festival of Nature, organised by the Bristol Natural History consortium. Over 14,000 people attended the Festival.
- An interactive exhibition of research in the Wills Building and a photographic and film exhibition in Royal Fort House as part of Doors Open Day. Clifton Hill House and the School of Chemistry also opened their doors, with University buildings attracting a total of 3,823 visitors.



Above: Circus performer at Changing Perspectives.

Above right: Visitors at the Festival of Nature.



Examples of public engagement support provided to academics include the following:

- A team from the School of Mathematics took an exhibition about quantum graphs to the prestigious Royal Society Summer Exhibition, attracting over 13,000 people.
- CPE supported a record number of academics with public engagement sections of grant applications, and worked with several groups and individuals to secure grants either for stand-alone projects or where public engagement forms a large part of the research. Examples include a £300,000 grant from the Engineering and Physical Sciences Research Council (EPSRC) for a sustainable communities project led by Dr Mike Fraser from Computer Science, £20,000 from EPSRC for a public engagement project led by Dr David Glowacki from Chemistry, and £23,000 from the HE STEM programme with Professor Colin Taylor in Civil Engineering.
- All postgraduate students from the University's four Doctoral Training Centres attended a training course in public engagement run by CPE in February.

Setting the national agenda

Working with the National Co-ordinating Centre for Public Engagement (NCCPE), which is co-hosted by the University, and the Higher Education Funding Council for England, CPE has helped develop guidelines for the inclusion of public engagement in the Research Excellence Framework. The University was one of the first to sign the NCCPE's manifesto, making a commitment to review its progress towards becoming an Engaged University.

Responding to community needs

The University has been involved in the University of Local Knowledge project, a sustainable communities project led by Knowle West Media Centre, which aims to value local knowledge through short films featuring community members talking about their area of interest or expertise.

Bristol's Community Sport Programme continues to gain momentum. More than 100 student volunteers were involved in planning, designing and running the three-day RELAYS secondary school Festival of Sport, involving over 1,400 pupils from every secondary school in the city.

Nurturing relationships with alumni

Bristol is in touch with over 101,000 alumni in 170 countries around the world and nearly 8,000 individuals have signed up to the Bristol alumni LinkedIn and Facebook pages, doubling last year's participation.

During 2010/11, the Convocation Committee, the Campaigns and Alumni Relations team and alumni volunteers around the world organised many alumni events worldwide. These included a Convocation Lecture by Alastair Stewart (Economics & Politics 1970-73, Hon LLD 2008) in Bristol; a London panel discussion on flood risk and climate change; gatherings in New Delhi, Long Beach California, Paris and Japan; and a dinner in Cambridge.

Evidence of the University's excellent engagement record with its alumni is clear from the fact that Bristol has more alumni donors than any other UK university (excepting Oxbridge). In 2010/11, more than 6,100 alumni gave gifts, with more than 300 of these giving at Pioneer level (see pp27-28).

Behaving responsibly as an institution

The University was awarded two international environmental accreditations for reducing its impact on the environment. It is one of the first Russell Group universities to achieve ISO 14001, an international standard that provides a framework for organisations to manage and improve their environmental performance. ISO 14064 demonstrates that the University has implemented rigorous management and reduction of carbon emissions with robust plans for future reductions. More information about the University's efforts to improve the sustainability of the physical estate can be found on pp22-23.

Estate development

The University continued to make substantial investment in its academic and residential estate throughout 2010/11, 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.

National Composites Centre becomes operational

Construction work began on the National Composites Centre (NCC) at the Bristol and Bath Science Park in August 2010 and was completed in June 2011. NCC, a collaboration between the South West Regional Development Agency and the University of Bristol, brings together leading industry experts and academics in composites research and manufacture. GKN Aerospace, Airbus, AgustaWestland, Rolls-Royce and Vestas have committed to long-term partnerships with NCC, which also aims to forge links with other centres of advanced manufacturing expertise across the UK.

The NCC is a one-stop centre of excellence in composites – lightweight, high-performance materials that are key to cutting the environmental impact of industries that have traditionally been heavy carbon emitters. The centre provides manufacturing facilities on an industrial scale, capable of building prototypes to validate design concepts and rapid manufacturing processes. The centre is due to operate at full capability by September 2011.

New and improved facilities for students and staff

Work was completed on the second phase of the £3.5-million refurbishment project of the Graduate School of Education (GSOE) in Berkeley Square. The first phase, completed early in 2010, saw the opening of a new library on the ground floor. The space formerly occupied by the library has been revamped, enabling all GSOE staff to be located within one building.

Refurbishment of Oakfield and Barley House in Clifton provided improved accommodation for staff and students in the

School of Social and Community Medicine. At St Michael's Hospital, the University and the University Hospitals Bristol NHS Trust opened a new £6-million facility, housing a high-spec magnetic resonance imaging scanner for use in a variety of research applications.

New beginnings

Work began to renovate and extend the Queen's Road Building to provide enhanced facilities for the Students' Union and other University facilities located there. The £25-million project will run until 2015, with the building remaining operational over the period. The first phase comprises new accommodation for the International Office and the International Foundation Programme, refurbishment of the swimming pool area and improved accessibility for the entire building.

Carbon management and energy-saving

The University reduced its carbon dioxide emissions by 3.3% in 2010/11 against its 2005/06 baseline, in line with targets in its carbon management plan to reduce emissions by 35% by 2020. To date, £10-million has been allocated to a variety of carbon-reduction projects, including boiler replacements and improved electrical services infrastructure and insulation, particularly in the student halls of residence, freeing up funds for core activities around teaching, students and research.

The University has extended the running hours of the existing Combined Heat and Power unit at Langford and installed better controls to improve the efficiency of the district heating scheme.

The University has also entered into a flexible energy-purchasing arrangement, using current market rather than fixed-term contracts, in order to reduce costs.

Right: Refurbished Graduate School of Education Library.
Far right: Artist's impression of the Queen's Road Building.



Travelling in the right direction

The University won an Employer of the Year award as well as a Gold award for its innovative and environmentally friendly staff travel plan in the West of England Travel Plan Awards, hosted by Bristol City Council. The awards reward organisations that promote sustainable travel to employees and help them to reduce their carbon footprint.

During 2010/11, the University maintained a 20% reduction in single-person car journeys; introduced a joint bus service with the University of the West of England from the Stoke Bishop halls of residence to the precinct; installed more cycle parking across the precinct with funding from Bristol City Council; and introduced a scheme where abandoned bikes are passed on to charity for reconditioning through community enterprises and then sold on.

The University is also collaborating with JISC to develop tools to reduce its 'scope 3 carbon emissions' (indirect emissions that organisations produce through their activities, but occur from sources not owned or controlled by the organisation). The project will address travel relating to attendance at events in the course of academic and other University business.

Reducing waste

In 2010/11, the University increased its efforts to reduce waste. New initiatives included the following:

- introducing a pilot laboratory waste recycling scheme in the Dorothy Hodgkin Building, allowing for recycling of polystyrene, plastics and glass. The scheme resulted in a 50% reduction in waste collection and is due to be rolled out across the University;
- offering accredited Chartered Institute of Waste Management training courses for staff and students, led by the Sustainability team. Its Carbon Audit Training and Auditing course is one of the intensive skills activities offered through the Careers Service's Bristol PLuS scheme to students seeking to improve their employability;
- launching Re-Store, a new reuse website that enables University members to advertise unwanted and surplus reusable items, including furniture, stationery and IT equipment, in order to minimise waste and reduce University expenditure on furniture and office sundries.

Having a (green) impact

The University's Green Impact Awards initiative – an accreditation scheme for environmental best practice based on over

130 actions that help departments to reduce their negative impact on the environment – is now in its third year. The scheme engages 40 departments that took more than 1,500 environmental actions in 2010/11. Three teams – from Procurement, Space and Asset Management and Estates Administration; Hospitality; and the Dorothy Hodgkin Building – gained Platinum awards this year, with the overall prize going to Procurement. Thirty-five other universities now run Green Impact schemes and the University is working with University Hospitals Bristol NHS Trust to develop similar initiatives in hospitals and with the National Union of Students to develop Green Impact labs.

Green Academy

The University is participating in the Higher Education Academy's recently launched Education for Sustainable Development project, known as Green Academy, which aims to help institutions to incorporate sustainability in the curriculum and learning experience. The project brings together teaching, research, support services staff and students from different subject areas, and has so far identified opportunities to use the estate as a 'living lab' and proposed a Masters course in sustainability.

Information technology and libraries

The University's Information Services division provides information resources and library services to support the delivery of the University's learning and teaching, and research and enterprise activities. Some of the division's achievements and developments undertaken during 2010/11 are outlined below. From August 2011, Information Services was replaced by two separate organisations, IT Services and the Library.

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

The University continued its rolling programme of library refurbishment throughout 2010/11, focusing on the first and second floors of the Arts and Social Sciences Library to complement the ground-floor renovations completed in 2009. The new facilities include quiet study areas, enclosed group study areas, additional furniture to suit modern study needs, and audio-visual viewing areas.

The Library's 2010/11 book budget increased by 13%, boosted by an additional £125,000 provided by alumni donations. The Library has also rolled out its new 'e-Reserve' service to 13 schools or departments. This facility gives students access to book chapters or journal articles via Blackboard, and users have so far made more than 800 requests for scanned items. The Library has also continued to review and improve its opening hours, extending hours in the Queen's Building Library and the Wills Library over the April Bank Holiday weekends and other key student revision periods.

A new interface to the Library Catalogue was launched in February 2011, which offers a single Google-style search box and enables users to search by author, title or key word, and to limit the search by material type. An Archives Catalogue was also introduced, providing access to a growing number of archival records and digital images.

The Library was successful in a bid for funds to provide self-service facilities in its four largest branch libraries, and aims to implement these over a five-year period

beginning in 2012. Radio-frequency identification technology will facilitate convenient self-service lending and return services throughout extended opening times, and will release study space.

IT Service Review

As part of the Support Process Review (see p16), IT Services has been restructured to improve efficiency by limiting the number of processes used to perform similar tasks, and by reducing inefficient procurement of IT solutions. This has resulted in a smaller, more focused, IT organisation across the University. Service and process improvements include the following:

- all IT staff are now managed by a single process owner;
- the IT organisation has been restructured centrally while maintaining local provision through geographical zonal teams that cover faculties and support services;
- common policy, standards and operational processes are being defined;
- Service Level Agreements outlining standard levels of service are being put in place, with variations being limited to areas of genuine need, for example, in certain academic disciplines;
- a central Service Desk now handles all IT-related incident calls.

Planned changes include:

- the implementation of a standard approach to the management of desktop computers across the University will be implemented; and

- the introduction of a defined career development structure for IT professionals, with appropriate progression and movement across teams.

A review of IT processes across the University has been conducted, and a set of principles developed, to inform the planning and development of organisational models and a professional career development framework. IT Services continues to monitor IT service provision in higher education institutions and other organisations to ensure that it complies with best practice.

Supporting students

The University continues to invest heavily in ICT to support teaching, learning and research. Wireless networks have been extended to five halls of residence (1,700 study bedrooms, over a third of the residential estate), and wireless access is available across the University precinct.

2010/11 saw an increase in the use of the University portal, My Bristol, with around 10,000 undergraduate and 3,500 postgraduate users. The portal provides access to a range of tools and services, including email, remote desktop, course details, Blackboard and Student Info. The Student Laptop Clinic continues to receive positive feedback from users.

Developing business processes

Activities in Information Processes and Systems over the past year include the following:

- the launch of a new online postgraduate admissions system, which allows applicants to track the progress of their application and supports more efficient processing of applications, reducing duplication and the reliance on paper;
- the introduction of a new access and identification system across the University, equipping buildings with networked smart card readers and providing staff, students and visitors with multifunction smart cards;



Above: Student taking advantage of wireless access on the precinct.
Above right: High Performance Computing facility.



- the development of new systems for managing unit and programme data and updating student records;
- improved estates management and research information systems.

High Performance Computing

BlueCrystal, the University's High Performance Computing (HPC) facility, now supports over 375 users undertaking research across a wide range of disciplines. BlueCrystal is also being used for teaching, with over 50 undergraduates studying HPC modules run by the Department of Computer Science in autumn 2010 and similar numbers expected in spring 2012. Over 900 users have attended workshops since 2007 and 196 papers were published or in preparation by HPC users in 2010. The next phase of BlueCrystal is being planned and will be built using a mixture of new and existing technologies.

BluePeta, the new petascale Research Data Storage Facility, is now available to researchers from all disciplines, and provides a secure, resilient facility for the long-term storage of research data.

Enabling research

A number of projects led by the Institute for Learning and Research Technology in 2010/11 illustrate how the University is meeting its commitment to provide systems that enable easy, anytime, anywhere access to University information. One such example is the Nature Locator project. The project has developed a smart phone application to help biologists monitor the distribution and movements of the horse-chestnut leaf miner, a non-native moth species that is causing widespread damage to horse-chestnut trees. 'Conker Tree Science – Leaf Watch' shows users how to identify affected trees and enables them to upload a GPS tagged photograph and rate the degree of damage caused by the moth larvae. The data collected will feed into a larger project being run by scientists in the School of Biological Sciences and the University of Hull.

Alumni distinctions and honorary degrees

Alumni distinctions

Bristol alumni excel in many fields across the globe. We highlight some of those whose contributions were recognised by external organisations in 2010/11:

Professor Emil Wolf (BSc 1945, PhD 1948) won the 2010 International Society for Optical Engineering (SPIE) G G Stokes Award.

Julia Donaldson (BA 1970, Hon DLitt 2011) was confirmed as the new Children's Laureate.

Dr Martin London (MB ChB 1977) received the 2011 Peter Snow Memorial Award for his contribution to rural health in New Zealand.

Dr Peter Muir (BVSc 1985) received the 2011 AVMF/AKC Career Achievement Award in Canine Research.

Colonel Harry Holt, OBE (BA 1990) received the Distinguished Service Order medal in the 2010 Military Awards.

Will Lewis (BSc 1990, Hon LLD 2010) was the Journalist of the Year at the 2010 British Press Awards, for his work as Editor of the Telegraph during the MPs' expenses exposé.

Dr Jennifer Daltry (BSc 1991) was awarded a Cambodian Knighthood in 2010 for her achievements with Flora & Fauna International.

The number one Earnings Estimator in the Marine Industry, according to the 2010 FT/Starmine award programme, was **Natasha Boyden** (BA 1997).

Russell Watson (MEng 2004) was named the 2010 Autocar Young Driver of the Year.

The recipient of First Prize and the Paul Roell Medal in the 2011 Zwick Science Awards was **Daniel Raabe** (MSc 2007).

Paul Skinner (BA 2008) was the winner of the 2010 David Lean Award, which recognises emerging screenwriting talent.

Two Bristol alumni were elected Fellows of the Royal Society in 2011: **Dr Steven Gamblin** (BSc 1983, PhD 1989) of the MRC National Institute for Medical Research; and **Professor Ian Manners** (BSc 1982, PhD 1986), Professor of Inorganic, Macromolecular and Materials Chemistry at the University of Bristol.

Honorary degrees

Every year, the University awards its own distinctions. Below we list all those who received honorary degrees from Bristol in 2010/11 in recognition of outstanding achievement.

Alison Bernays Pro Chancellor and former member of Council, University of Bristol; Director of Oldown Farms Ltd, Doctor of Laws

Sir Ian Carruthers, OBE Chief Executive, NHS South West, Doctor of Laws

Phoebe Caldwell Pioneer of therapies for people with autism; winner of The Times/Sternberg award for the over-70s, Doctor of Science

Julia Donaldson (BA 1970) Children's author, Doctor of Letters

Gregory Doran (BA 1980) Chief Associate Director, Royal Shakespeare Company; former student at the Bristol Old Vic Theatre School, Doctor of Letters

Dr Jonathan Gipps Former Director of Bristol Zoo Gardens, Doctor of Science

Professor Ann Henderson-Sellers (BSc 1973) Professor of Climate Science, Macquarie University, Sydney, Australia, Doctor of Science

Dr Andrew Mackenzie (PhD 1981) Geoscientist; Director of Mineral Resources, BHP, Doctor of Science

Ben Morris (BEng 1993) Bafta and Oscar-winning visual-effects engineer, Doctor of Engineering

Professor Geoffrey Parker, FRS (BSc 1965, PhD 1969) Emeritus Professor, University of Liverpool; Darwin Medal winner, Doctor of Science

Professor Paul O'Prey (PhD 1993) Vice-Chancellor, Roehampton University; former Deputy Registrar, University of Bristol, Doctor of Laws

Geoffrey Rowley (BA 1958) Former chair of the University of Bristol Foundation Inc., Doctor of Laws

John Sansom Founder and director of Redcliffe Press Ltd; writer and publisher of books about Bristol, Doctor of Letters

Dr Graham Spanier President of Pennsylvania State University; founder member of the Worldwide Universities Network, Doctor of Laws

Professor Sir Nicholas Wright Warden of Barts and The London School of Medicine; leading figure in academic medicine, Doctor of Science

Philanthropy

Gifts from thousands of alumni and friends, companies, charities and Bristol's current staff and students enable Bristol to do more important work, and to support more students, every year. Philanthropic support touches the lives of many at Bristol, from students who are enriched and supported through a fantastic education, to researchers who strive to answer some of the world's most important questions.

In 2010/11:

- With the help of colleagues across the University, Campaigns and Alumni Relations raised over £6.25 million – the highest amount raised to date. The Mander & Mitchensen archive was given to the University, with an estimated value of at least £3.5 million. Additional gifts from philanthropic sources across the University were worth more than £3.5 million. Altogether, this was Bristol's best performance ever in philanthropic cash income.
- Over 7,000 individuals, companies and foundations from 66 countries made donations to the University, including more than 6,200 alumni. Bristol now benefits from the third highest rate of support among UK universities.
- Bristol's Centenary Campaign, launched in 2009, has now broken the £70 million barrier in cash and pledges, driving us towards our 2014 goal of £100 million.
- The number of Bristol Pioneers (individual donors who give £1,000 or more in a year) rose by a staggering 31% this year, to 381. This group alone contributed almost £1.8 million to Bristol, and we list them here in recognition of their generosity.

2010/11 Bristol Pioneers £25,000+

Dr Gerald Avison (BSc 1962, PhD 1967)
Mrs Gretchen Bauta
Professor Stephen E Halford (BSc 1967, PhD 1971)
Mrs Kate Holmes
Mr Roger A Holmes (BSc 1981)
Perivoli Trust
Mr Jonathan D Punter (BSc 1978)
Mrs Julie C Punter (BSc 1978)
Mr Andrew Roberts (BSc 1968)
Mr John Rutley
Mr William Spears and the Spears family
Mrs Lily Wong Pakshong
Dr Michael Wong Pakshong (BA 1957, Honorary LLD 1994)
Mr Nigel W Wray (BSc 1970, Honorary LLD 2005)

£5,000-£24,999

Mr Sushil K Anand (Certificate 1957) – Krishan Anand Charitable Trust
Dr John M H Andrews (BSc 1969, PhD 1973)
Mrs Linda J Andrews (BA 1971)
Dr Amitava Basak
Mrs Shyamali Basak
Mr Graham H Blyth (BSc 1969)
Mr Clifford T Bridge (BSc (Hons) 1950)
Mrs Linda Carr (BSc 1969)
Mr Russ Carr (BSc 1969)
Mr Charles J Cazalet
Mrs Jenny Cazalet
The Rt Hon Lord Chilver FRS (BSc 1947, PhD 1951, DSc 1962 Honorary DSc 1983)
Professor David Clarke
Mr William G R Davies (BSc 1971)
Dr John M Davis
Mr Richard H Dodd (BSc 1983)
Mrs Diana E S Dunn (BA 1977)
Mr Peter K Estlin (BSc 1982)
Mr Steven L J Everett (BSc 1993)
Mr Gerard I Fox (BSc 1986)
Mrs Elinor Goldsmith
Dr Stuart A Goldsmith (BA (Econ) 1966, Honorary LLD 2007)
Ms Natasha R Good (LLB 1991)
Mr Tim Herrington (LLB 1975)
Ely Jacques Kahn III
Dr Ian J E Keil (BA 1955, PhD 1965)
Mrs Teresa Keil
Mrs Jennifer Looker
Mr Roger F Looker (LLB 1974)
Mr Anthony H W Luckhurst (BSc 1974, MSc 1975)

Dr Andrew S Mackenzie (PhD 1981, Honorary DSc 2011)
Mr Anthony P W Makepeace (BSc 1961)
Mr Charles D Z Martin (LLB 1982)
Mr Alastair J G Matchett (BSc 1991, MSc 1993)
Dr Alasdair A D McKerrell (PhD 1981)
Professor Martin G Mott (BSc 1963, MB ChB 1966)
Mrs Patricia Mott
Mr Hugh Osmond
Mr Timothy A C Page (LLB 1985)
Mrs Jan Phillips (LLB 1983)
Mr Andrew R Pinnington (BA 1989)
Mr John K Pitts (BSc 1948)
Mr Geoffrey H Rowley (BA 1958, Honorary LLD 2011)
Mr Daniel J O Schaffer (LLB 1986)
Mrs Ellen M Schmidt (LLB 1977)
Mr Richard M Schmidt (LLB 1977)
Ms Lesley G Silvester (BA 1968)
Mrs Elaine R Sneller (LLB 1988)
Mr Philip G Symonds (BSc 1973)
Mr Daniel C Witter (BSc 1990)

£1,000-£4,999

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Mr Simon T Aird (BSc 1993)
Hareb M H Al-Darmaki (BSc 1974)
Mr Gati S Al-Jebouri (BEng 1990)
Dr Stephen A Allpress (BEng 1990, PhD 1994)
Mr Omar Al-Nuaimi (LLB 1994)
Mr Mohammed E Al-Shukairy (LLB 1999, LLM 2000)
Mr David M J Attwood (BSc 2008)
Mr Allan Aw (BSc 1971)
Dr Adebola O Bada (MB ChB 1969)
Dr Celia E Bangham (MB ChB 1977)
Mr Jamie Barber (LLB 1993)
Mr Philip J Beer (LLB 1995)
Mr Laurie W Beevers (BSc 1969)
Mr Nick Bell (BSc 1981)
Mr John E Benson (BSc 1976)
Mrs Monica R Bhogal (LLB 1996, Diploma 1997)
Mr Sandy S Bhogal (LLB 1996, LLM 1997)
Dame Carol Mary Black DBE DSC (BA 1962, MB ChB 1970, MD 1975 Honorary DSc 2003)
Mr Steven A Blakey (LLB 1980)
Lady Boateng
The Lord Boateng (LLB 1973, Honorary LLD 2007)
Mrs Helen C Bond
Mr Jonathan R Bond (BSc 1969)
Mr Alexander S Brooks (BSc 1998)

Miss Davinia Bulford-Cooper (BSc 2004)
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Dr Shelagh P Bullimore (MB ChB 1972)
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Mr James Burstall (BA 1987)
Mr Andrew E J Burton (BA 1988)
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Mr Peter G Bye (BSc 1965)
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Mr Norman S D H Casson (LLB 1969)
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Mr Choon-Soo Chew
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Professor Richard R Clements
Mr Nigel J Cobb (MB ChB 1952)
Mr Dennis Cockerill (BSc 1953)
Mr Oliver Corbett (BSc 1986)
Mr Timothy D Corrie (BA 1963)
Miss Sharon Crawford (BSc 1976, Cert Ed 1977)
Ms Elizabeth A Cretch (BA 1969)
Mr Richard H Cunningham (BEng 1982)
Mr Hugh P B Cutler (BSc 1994)
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Mr John G Davies (LLB 1977)
Mrs Alison C Davis (BSc 1984)
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Ms Sarah P Driver (LLB 1984)
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Mr Robert Dufton (LLB 1983)
Mr Craig J Durham (BEng 1986)
Mrs Matti Egon
Mr Nicholas Egon
Dr Paul J England (BSc 1965, PhD 1968)
Mr A Stephen Fagg (BSc 1962)
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Dr Roy F Followell (BSc 1954, PhD 1958)
Mr Clemens W Forster (LLM 2006)
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 Mr Andrew Paynter (BSc 1986)
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 Mr Basim N Ziadeh (MSc 1975)
 Dr Allen Zimble

A further 35 Bristol Pioneers have asked to remain anonymous.

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 BP plc
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 Citrina Foundation
 The Conservation, Food & Health Foundation
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Mr James Wadsworth – Treasurer
Cllr Christopher Davies – Bristol City Council
Mr Denis Burn – Society of Merchant Venturers (Chair)
Mr Bill Ray – Convocation

Elected by Court

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

University members (10)

Professor Eric Thomas – Vice-Chancellor
Professor David Clarke – Deputy Vice-Chancellor
Professor Avril Waterman-Pearson – Pro Vice-Chancellor
Professor Guy Orpen – Pro Vice-Chancellor

Elected members of the academic staff

Professor Paula Booth
Professor Tim Bond
Dr Sally Heslop
Dr David Newbold

Elected members of the non-academic staff

Mr Robert Massie
Ms Pru Lawrence-Archer

Students (3)

Mr James Ashton-Bell – President of the Students' Union
Mr Andrew Hollingsworth – Vice-President of the Students' Union
Mr Tom Steward – Vice-President of the Students' Union

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