Above: A Panda Club outing in a local park.

New Enterprise Competition

The winner of the 2009 New Enterprise Competition was Jennifer Griffiths, a fourth-year student in the Department of Computer Science, for Snap-Fashion, a new website that uses a number of image processing techniques to provide a ‘pictorial search engine’ for fashion items. The prize included £15,000 plus six months’ managed office space at the Bristol SETsquared Business Acceleration Centre and free legal advice from Bristol law firm Osborne Clarke.

The joint runners-up were:

- Sriakshi Sharma, a member of staff in the Department of Ophthalmology, for Selo, a low-cost device that increases the efficiency of eye injections to treat macular degeneration, a major cause of blindness, potentially saving the NHS some £50 million per year;

- Engineering Mathematics undergraduate Edward Matos for Shamba Technologies, a social enterprise that will distribute biodigester technology among the rural poor of developing countries, introducing a fuel source derived from livestock excrement - a cleaner alternative to the firewood that causes disease and death for thousands every year through smoke inhalation.

The 2009 competition entries were judged by a panel of experts from the sponsoring organisations, including Bristol City Council, Business Link, Deloitte, EADS, Edwards, Ginko Investments, IP Group, North Bristol NHS Trust, Osmond Clarke, Santander and Wyvern Seed Fund.

GRANTS

The University attracted a total of £102 million in grants during 2008/09. This included the following:

£1.5 million in Doctoral Training Grants from the Biotechnology and Biological Sciences Research Council to the Faculty of Medical and Veterinary Sciences for the training of postgraduates.

A European Research Council Advanced Grant of €2.4 million over five years to Professor Dave Sparks in the Department of Earth Sciences for a study of volcanoes and their environmental and social impact.

£1.1 million from the Medical Research Council for a study led by Chris Salisbury, Professor of Primary Health Care, to improve access to physiotherapy in the NHS.

Over €2 million in the form of a five-year European Research Council Advanced Grant to Jeremy Henley, Professor of Molecular Neurosciences in the Department of Anatomy, for a study of brain proteins entitled ‘Mechanisms and consequences of synaptic SUMOylation in health and disease’.

£1.2 million over three years from the Biotechnology and Biological Sciences Research Council to David Murphy, Professor of Experimental Medicine in the Henry Wellcome Laboratories for Integrative Neuroscience and Endocrinology, and Professor Julian Paton in the Department of Physiology and Pharmacology, for studies of gene expression and hypothalamic plasticity in response to dehydration.

An ERC grant of nearly £11 million to an international consortium, including Paolo Maseddu, Professor of Experimental Cardiovascular Medicine at the Bristol Heart Institute, that seeks to understand the molecular mechanisms that impair wound-healing and organ repair in ageing or ill patients. The ultimate aim is to find ways of enhancing the body’s healing capacity and reducing chronic inflammation.

£1 million from the European Space Agency to a team including members of the Department of Aerospace Engineering working on the design of a reusable space plane, the SKYLON, that can take off from a conventional aircraft runway, carry over 12 tonnes into orbit and return to land on the same runway.

£0.6 million from the Economic and Social Research Council to Dr Maurizio Marinelli (Centre for East Asian Studies), Professor Robert Bickers (Department of Historical Studies) and Professor Nikki Cooper (a former Bristol academic now at Swansea University) for a three-year research project on colonial Chinese history, focusing on the northern Chinese port city of Tianjin.

£1.7 million from the Biotechnology and Biological Sciences Research Council to a team including Keith Edwards, Professor of Cereal Functional Genomics and Dr Gary Barker, Research Fellow in the School of Biological Sciences (along with researchers at the University of Liverpool and the John Innes Centre) to carry out an extensive genetic analysis of the wheat genome, with a view to increasing disease resistance, quality and yield.

Funding of £1.3 million from the energy company E.ON to Dr Neil Fox from the School of Chemistry and the Department of Physics to exploit solar heat to produce electricity using devices called thermionic energy converters. Dr Fox is developing special electrodes for these converters using nanoparticles of industrial diamond powder, which is low-cost and readily available.

The University’s priorities in this area are to:

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- support a vibrant, active and democratic Students’ Union;

- ensure the provision of learning and skills opportunities that enhance students’ future employability;

- provide advice and support for students’ personal welfare and ensure effective integration into the University and local community;

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Student Community Action and RAG

Student Community Action (SCA), a volunteering organisation in the Students’ Union with over 1,000 members, provides opportunities and training for student volunteers working in support of community projects. A Volunteer Development Co-ordinator, initially funded by the Higher Education Funding Council for England through its Teaching Quality and Enhancement Fund, organises and oversees training and development programmes for the students involved.

SCA ran 33 projects between August 2008 and July 2009. Each project is run by one or two student volunteer co-ordinators; regular volunteer numbers vary but 2008/09 saw a total of 2,365 volunteers working on SCA projects. The 29 training programmes for volunteers were attended by some 1,080 people.

SCA projects include:

- Greenforce, a conservation group that has recently begun working with bodies such as the British Trust for Conservation Volunteers and the Avon Wildlife Trust (via its School Grounds Project), and was involved in a project to build a green space for the Totterdown community in Bristol;

- Door to Store, a free service offering transport to supermarkets for elderly or ill patients. The ultimate aim is to find ways of enhancing the body’s healing capacity and reducing chronic inflammation.

- The Big Give, which organises collections of left-over food and objects from halls of residence and student houses at the end of the academic year and donates them to local homeless shelters and charities (see p28);

- Breast Cancer Awareness, which provides workshops and presentations for students and members of the local community about breast health.

RAG activities in 2008/09 encountered an uncertain economic climate but still raised a total of £94,000. Over 5,000 student volunteers were involved in RAG fundraising events and activities, including regular street collections, an art exhibition, a ‘Massage-a-thon’ in which the Massage Society provided ten volunteers to give massages for donations, a Soccathon (involving 15 football teams), a 10km race, and the annual RAG Ball, which raised over £8,000.

STUDENTS

Education is at the heart of the student experience, but university life should also offer outstanding opportunities for social, vocational, intellectual and personal development. The University is proud of its students and works tirelessly to provide an environment, a set of support structures and a range of opportunities that will enable students to excel in every aspect of their lives at Bristol and to make their university career a genuinely transformative experience.

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Bristol students win SET Awards
Two Bristol students were winners of the prestigious 2008 Science, Engineering and Technology (SET) Student of the Year Awards, organised by the World Leadership Forum. Philip Ewels from the Department of Biochemistry won the AstraZeneca Award for the Best Biology or Biotechnology Student, and Niall Oswald from the Department of Electronic Engineering won the e2v Award for the Best Electronic Engineering Student.

Medical student wins Penguin Prize
Seetha Adayarewa, a British-Chadian fourth-year student in the Faculty of Medicine and Dentistry, was one of the winners of the 2008 decibel Penguin Prize, awarded by Penguin and Arts Council England for accounts by writers with a mixed-heritage background of their experiences. Her piece is published by Penguin in The Map of Me, the third annual anthology of decibel winners.

Chemistry student shines
Liam Ball, a final-year MSci undergraduate in the School of Chemistry, was awarded a 2009 Graduate Prize – one of only five – by the Salters’ Institute, which supports chemistry teaching, encourages young people to pursue careers in the UK chemical industries and promotes chemical education.

Bristol student wins 2009 GHS Essay Prize
Three postgraduate students in the Department of Archaeology and Anthropology took top honours in the 2009 Garden History Society (GHS) Essay Prize. Judith Preston won the prize for her essay ‘Thomas Wright: A polymath in Arcadia’, while Janet Davidson Carter and Helen Lawrence were highly commended for their essays on Birkenhead Park and Thomas Archer respectively.

Bristol engineers ride high as role models
Five engineering students were selected by the Royal Academy of Engineering as ‘inspirational role models to the next generation of engineers’. Graham Hinchly (Mechanical Engineering), Peter Levi and Tom Myrons (Civil Engineering), Edward Thompson (Aeronautical Engineering) and Richard van Arkel (Engineering Mathematics) competed against 150 students from other UK universities to win the national Royal Academy of Engineering Leadership Advanced Awards. These awards allow engineering undergraduates with aspirations to leadership roles to undertake an accelerated personal development programme.

Fulbright Award for Chemistry postgrad
Mike Shaw, a PhD student in the School of Chemistry, gained a prestigious Fulbright Commission Distinguished Scholarship Award in June to pursue his work on the synthesis of anti-cancer agents at the Scripps Research Institute in California, the world’s largest independent, non-profit biomedical research facility. It is hoped that his work, which attempts to synthesise a rare molecule found only in Japanese Sea Squirts, will lead to the development of powerful new clinical medicines to fight cancer.

Sport
Medics score victories in fencing and powerlifting
Three members of the University’s High Performance Squad won events at national level in the latter part of 2008. Francesco Egro from the School of Medicine and Naomi Taylor from the Dental School represented England in the 5 Nations fencing tournament. Egro won both foil and sabre events, and Taylor won the épée event.

Bristol’s genetic engineers beat the world’s best
An interdisciplinary team of Bristol students triumphed over 83 other teams, including some from the best universities in the world, in a prestigious competition to genetically engineer a machine. The Bristol Centre for Complexity Sciences team comprised nine students from departments including Biology, Biochemistry and Engineering Mathematics, working together on their entry for the competition at MIT, in which teams were given a set of ‘bio-bricks’ (or DNA parts) with which to engineer biological systems and test them in living cells.

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Rare publishing achievement for Earth Sciences undergraduate
A fourth-year student in the Department of Earth Sciences achieved the rare distinction of having his work accepted for publication in a major scientific journal while still an undergraduate. Felix Marx’s paper, ‘Marine mammals through time – when less is more in studying paleodiversity’, was published in Proceedings of the Royal Society. His paper offers new insights into the fossil record of whales, seals and sea cows.

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Engineering entrepreneur takes flight
George Mills, a student in the Department of Mechanical Engineering, was one of only 11 students in the UK to be awarded a place on the prestigious Flying Start Global Entrepreneurs programme. The scheme, made possible by a collaboration between the UK’s National Council for Graduate Entrepreneurship and the Swang Marion Kauffman Foundation in the US, includes mentoring from some of America’s leading entrepreneurs. Mills spent the first six months of his fellowship developing his technology-based business idea within Research and Enterprise Development (RED) at Bristol, followed by six months in the US as a Kauffman Global Scholar at leading universities such as Harvard, MIT and Stanford.

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THE BRISTOL CENTRE FOR COMPLEXITY SCIENCES TEAM
Top: The Bristol Centre for Complexity Sciences team
Bottom: Earth Sciences student Felix Marx