

RESEARCHNEWS

ISSUE FIVE • WINTER 2009/10



The appliance of science



Vision for a creative education





...a vital role in supporting business

Welcome to Research News

This issue highlights the impact of our research. Long term partnerships with industry ensure that our work in the sciences, social sciences, humanities and medicine help save real world problems.

Interaction between higher education and business, industry and the third sector is crucial to the long-term success of the UK economy. At Exeter we play a vital role in supporting business, from our collaboration with the Science Parks in Exeter and Cornwall to promoting business at the start-up and early development stage, often nurtured in our own Innovation Centre. Companies benefit from increased access to specialised, state-of-the-art facilities, and we are one of the top performing institutions in the region for establishing Knowledge Transfer Partnerships, helping apply academic expertise and research results to a company's specific business challenge.

The recession has underlined the importance of universities to the local and regional economies. The University of Exeter will deliver around £340 million worth of additional economic benefit to the economy this year. If we grow as we expect, we will add a further £60 million a year to the economy by 2012, bringing the total to about £400 million a year. In addition, the University secured just under £500,000 from the Economic Challenge Investment Fund provided by the Higher Education Funding Council for England (HEFCE). This will enable us to invest in the local economy, supporting businesses and individuals in the region during the economic downturn through our new Smart Solutions scheme.

Our work with industry and stakeholders is strengthened with the announcement that the University of Exeter has made it into the top 10 universities in the UK for the first time, according to *The Times Good University Guide* league table. Exeter's rise has been driven by highly intensive world-class research and high student satisfaction. Our investments in new facilities and increasing research capacity are making a difference – see the People page for more.



This issue also highlights our researchers' engagement with the policy process, and the importance of creativity on partnerships in education.

Professor Roger Kain CBE, FBA

Deputy Vice-Chancellor – Research and Knowledge Transfer, University of Exeter



Research News is issued twice-yearly and edited by Abigail Dixon, Communication Services, University of Exeter, with contributions from Liz French, Sarah Hoyle and Esther White. Design and publication is by the Design Studio, University of Exeter.

For comments on the magazine, including suggestions for future issues, please contact the editor on 01392 725770 or pressoffice@exeter.ac.uk



Launch powers wave energy research

The ambition for Cornwall to become a world-leading centre for wave energy has moved a step closer to reality with the launch of a two-tonne (2000kg) buoy off the coast of Falmouth.

Developed by a team at the University of Exeter, the South Western Mooring Test Facility (SWMTF) buoy can obtain very detailed, real-time data in actual sea conditions. This shows how moored structures respond to changes in wind, wave, current and tide and will help inform the future design and development of moorings for marine energy devices.

It will complement the South West RDA's (Regional Development Agency) Wave Hub project, which will create the world's largest wave energy farm off the north coast of Cornwall. It also supports wider ambitions to make the South West a global centre of excellence for marine renewables.

The SWMTF is the latest development from PRIMaRE (the Peninsula Research Institute for Marine Renewable Energy), a joint £15 million institute for research into harnessing the energy from

the sea, bringing together the technology and marine expertise of the Universities of Exeter and Plymouth.

The PRIMaRE mooring research group at the University

of Exeter successfully developed the £305,000 SWMTF with capital investment from the ERDF Convergence programme matched with funds from the South West RDA.



Genetic link to start of menstruation identified

Researchers from the Peninsula Medical School, along with collaborators from research institutions across Europe and the United States have, for the first time, identified two genes that are involved in determining when girls begin menstruation. The work was published in *Nature Genetics*.

The findings of the study could have ramifications for normal human growth and weight too, because early-age menstruation is also associated with shorter stature and increased body weight. In general, girls who achieve menstruation earlier in

life tend to have greater body mass index (BMI) and a higher ratio of fat compared to those who begin menstruation later.

The study carried out an analysis of 17,510 women across eight different international population-based sources.
The two genes identified were on chromosomes nine and six.
One in 20 females carry two copies of each of the gene variations which result in menstruation starting earlier, and they will start menstruating approximately four and half months earlier than those with no copies of the gene variants.



Exeter scientists tackle threat to farmers

Scientists from the University of Exeter are working on a €3.54million European Union project to tackle the most common disease among European livestock – liver fluke disease.

The parasitic liver fluke causes annual losses of over €3 million to cattle, sheep and goat farmers. Studies have shown this is a growing problem with some EU Member States seeing cases increase I 2-fold in recent years. It is estimated that between 45% and 85% of cattle in the UK are infected with liver fluke.

University of Exeter biochemists are working with experts from across Europe and South America on the project. Following three years of laboratory and field research, they and their fellow researchers are now sharing their findings with farmers and vets through a new website and

interactive CD-ROM. The website, www.deliver-project.eu gives tips on how to manage livestock to minimise the risks of them contracting the disease.

Resistance to the drugs that are used to treat infected cattle is on the increase. Exeter scientists' role in the project was to study how the drugs work at a molecular level in order to understand more about how drug resistance develops. Ultimately, they hope their findings could help pave the way for a better understanding of how the drug's effectiveness can be maintained.



Psychology of scams revealed

The psychological reasons consumers may fall victim to mass marketed scams are revealed in University of Exeter research commissioned by the Office of Fair Trading.

The research, undertaken by the School of Psychology, provides a valuable insight into why consumers fall victim to scams, costing the UK public an estimated £3.5 billion every year. It found that up to 20% of the UK population could be particularly vulnerable to scams, with previous victims of a scam consistently more likely to show interest in responding again. It also found that a good

background knowledge of the subject of a scam offer, such as experience of investments, may actually increase the risk of becoming a victim through 'over-confidence'.

The study showed that victims are not in general poor decision makers, for example they may have successful business or professional careers, but tend to be unduly open to persuasion by others and less able to control their emotions. Victims often keep their decision to respond to a scam offer private and avoid speaking about it with family or friends.

Contextualising Islam in Britain

A study uniting the Universities of Exeter, Cambridge and Westminster has explored the philosophical and theological perspectives on what it means to be a Muslim in Britain today. A total of 26 Muslim scholars, academics and activists representing a diverse spectrum of views from Muslim communities in the UK took part in discussions about living as a Muslim in modern Britain. The resulting report covers a wide range of issues including secularism, democracy, Shariah law, human rights and citizenship.

The report presents the group's conclusions and aims to act as the basis for a wider discussion with other Muslim leaders and communities around the UK. Despite its exploratory nature, the report puts forward conclusions concerning a number of key areas. The authors argue, for example, that a secular British state provides many benefits for British Muslims, not least by allowing Islam to be practised freely in an atmosphere of respect, security and dignity.

The study, entitled Contextualising Islam in Britain: Exploratory
Perspectives, can be downloaded at www.cis.cam.ac.uk/icbp.html



Parlez-Vous Obscenity?

French is the most common second language amongst Britons but most would never even know if they had been insulted. However, a research project funded by the Arts and Humanities Research Council, has brought together 30 researchers from the UK, France, USA, Switzerland and the Netherlands who have created a digital database of obscene phrases used in Renaissance France.

Led by Dr Hugh Roberts, Senior Lecturer in French in the Department of Modern Languages at the University of Exeter, the research network on the 'Notion of Obscenity in Renaissance France' aims to show that, though the French Renaissance is all too easily thought of as a time of coarse and bawdy humour and debauchery, the reality is more complex and more interesting.

Four hundred years on and the database contains terms that would still be considered obscene today, in the most open meaning of the word – from sexual double-entendres to scatalogical insults – in French and in neo-Latin, with an explanation in modern French, the source and the date.

The database is as an academic resource for those interested in French Renaissance language and culture, and it is also hoped that students and anyone else who might have lost interest in learning a second language might find it useful.

See: www.exeter.ac.uk/groups/obscenity

Beetroot juice boosts stamina

Drinking beetroot juice boosts your stamina and could help you exercise for up to 16% longer. A University of Exeter led-study, published in the *Journal of Applied Physiology*, shows for the first time how the nitrate contained in beetroot juice leads to a reduction in oxygen uptake, making exercise less tiring.

Researchers from the University of Exeter's School of Sport and Health Sciences and Peninsula Medical School conducted their study with eight men aged between 19 and 38. They were given 500ml per day of organic beetroot juice for six consecutive days before completing cycling tests on an exercise bike. On another occasion, they were given a placebo of blackcurrant

cordial for six consecutive days before completing the same tests.

After drinking beetroot juice the group was able to cycle for an average of 11.25 minutes, which is 92 seconds longer than when they were given the placebo.









Exeter — a hub for climate change research

The University of Exeter is this year welcoming 14 more academics to its world-leading interdisciplinary team working on impacts and prediction of climate change.

Exeter's research covers topics such as climate prediction and reconstruction, carbon cycle feedbacks, human and animal health, biodiversity, lifestyle choices, new technologies, environmental economics, politics and governance.

Of course, the University is not driving world-class climate change research on its own. The Met Office moved to Exeter in 2003, bringing the world-renowned Hadley Centre for Climate Prediction and Research. Now, five years later, with a strong relationship developing between the two organisations,

the University is delivering the first fruits of an initial £3.7million boost for its climate change research, as part of an overall £80million investment in science.

The University and Met Office work together on a number of groundbreaking research projects, and have co-hosted several events, including a major international climate change conference in 2008. New plans for the city and the wider region include a science park. This will carry the results of climate research into commerce and society. An environment and sustainability institute is planned in Cornwall where academics will work closely with external organisations, including the Met Office.



Work in progress



Truro's hidden history. The histories of five housing estates in Truro, Cornwall, are being explored in an oral history project. Experts from the University of Exeter's History department on the Cornwall Campus are working with Truro City Council and the Truro Historical Project to develop the community scheme to explore the lives of residents past and present.

Dr Kayleigh Milden, pictured left with Vera Jones and her brother-in-law Steve Jones says: "This provides a valuable insight into the experiences of the first communities on the new council estates constructed after the Second World War."

The project received £105k from the Arts and Humanities Research Council and funding from the Truro Community Development Partnership.

Sport, Leisure and Tourism. Six research projects are underway as part of the University of Exeter's research cluster in Sport, Leisure and Tourism funded by £1.5 million from the Economic and Social Research Council. Environment and sustainability are a common theme. The impact of second homes, use of water, and people's travel choices are all being researched, and partners include the Met Office and South West Water.

China links. The Graduate School of Education at the University of Exeter is planning joint research with East China Normal University in Shanghai. Possible projects include a cross-cultural study of Special Education provision in China and England, looking at teachers' understanding of inclusion and a research study on play in the Chinese cultural context.



The appliance of science

Last year higher education institutions in the UK provided ideas and services worth at least £2.8 billion to the economy*.

Universities boost the economy – through commercialising ideas, producing research for companies and promoting business at the start-up and early development stage. The University of Exeter has a long history of collaborative research and its application in the 'real world'. From projects as diverse as the development of new biofuels to creating the optimum office environment, academics and researchers have been working in long term collaborations with industry.

The Shell effect

Whilst research on biofuels was already happening at the University in the School of Biosciences, a recent grant from Royal Dutch Shell plc ("Shell") has given it a major boost.

The funding has enabled the University to conduct a major three year project investigating the potential for microscopic algae and bacteria to become a viable source of biofuels in the future. Led by Dr John Love, Senior Lecturer in plant molecular biology, the project involves a team of 20 and the Shell funding is supporting five PhD students. Dr John Love said: "We already know that algae have the potential to produce biofuels. What we are now doing is investigating how they do it at the molecular level, to increase the yields and efficiency of biofuel production."

Professor Nick Talbot, Head of the University of Exeter's School of Biosciences said: "This is a major opportunity for the University and allows us to carry out really cutting-edge research in the sustainable production of biofuels from non-food organisms. The University is investing £80 million in science and is focused on world-class research that will have real benefits to society. This is one of our biggest research projects and we are delighted that Shell is supporting us in this way."

Butterfly brilliance

The brilliance of butterfly wings has inspired a £3.2 million, three-year research project that promises to deliver innovation in the fields of security, energy and the environment. The University of Exeter and international technology company QinetiQ have signed a collaborative contract to develop new technologies based on groundbreaking physical sciences research.

Over the next three years a team of physicists from the University and QinetiQ will work together to develop new technologies, based on their discoveries in the field of tailored electromagnetic materials – made by studying the wings of butterflies. The team has uncovered the way in which the physical properties of butterflies' wings produce iridescence. By mimicking the unique structures of these wings, they aim to develop new products in the markets of anti-counterfeit technology, radio-frequency identification technology, wi-fi efficiency and security.

The project is funded through the Engineering and Physical Sciences Research Council's £55m Knowledge Transfer Accounts, which were established to help translate research into business innovation.

Attomarker aims high

The scientific challenges facing society today include the need for a greater understanding of complex systems such as the human body and in this case, the immune system. Attomarker Ltd is seeking to develop a low-cost, robust instrument, for use in a GP's surgery that can measure up to 100 components of whole blood in 15 minutes.

The vision is that one day a patient will be able to go to the GP, give a small blood sample and, whilst the GP is assessing their symptoms, a series of tests will make a diagnosis, providing a dynamic profile of the immune system. The impact on society could be enormous; the test

* source: The Higher Education Business and Community Interaction (HE-BCI) Survey could tell precisely which antibiotic to use and whether the immune system is ready to fight an infection. The test results may also help in screening for chronic diseases such as Alzheimer's or MS or provide information on the health of patients who are unconscious.

Attomarker is a spin-out company from the University formed last year and is based in the University's Innovation Centre. It has recently been awarded a £62,000 grant by the South West Regional Development Agency to develop this area of research further.

Spatial awareness

Research at Exeter goes as far as finding out what really makes business tick. Prism, a research group led by the University and supported by government and business partners, uses psychology, business planning and organisational change to answer some of the fundamental questions surrounding workspace.

The group's research has found that people who are able to express something of their own identity by contributing to the design of their own workspace perform faster and report being more content. This translates into real business benefits, with up to a 32% increase in productivity.

This research originated as a PhD and this led to the formation of the company, based in the Innovation Centre. Dr Craig Knight, managing director of Prism comments "Our work attempts to develop an optimal model of space management with widespread uses and applications. Our goal is to make the provision of a psychologically rewarding environment an economic necessity, not just a 'nice to have' luxury. We are therefore very keen to forge links with organisations that can see the benefits and opportunities created by our approach."



Part of Attomarker's immuno-profiling point of care system. Pic: Theo Moye/Apex



Driving public policy

Exeter's research and the policy process

With election fever set to sweep Great Britain, it is more important than ever for research to engage with the policy process. Researchers at the University of Exeter have a strong track record of working with decision makers on behind-the-scenes advocacy. Here, *Research News* highlights a small selection of key engagement with UK policy makers.

There is rarely a hotter issue than health, with it defining Barrack Obama's presidency in the US and high on the agenda of government here. Policy makers rely on research to make sure that healthcare initiatives act on the latest evidence, and to inform spending on drugs and equipment. Exeter's Peninsula Technology Assessment Group's (PenTAG) core business is the synthesis of research evidence to inform health policy and practice. The team of 20 researchers specialising in systematic review, decision science and public health is part of the Peninsula Medical School and feeds directly into national policy development at the National Institute for Health and Clinical Excellence (NICE). Their work generally involves reviewing a body of research to find evidence of the effectiveness and cost-effectiveness of treatments, or approaches to health promotion or disease prevention.

Recent research has appraised the clinical evidence and health economics of the drug Lenolidomide for people with multiple myeloma and four new treatments for renal-cell carcinoma. The result of these reviews led NICE to make these treatments available only where they would represent a good use of finite NHS resources. Other research has advised on ways to tackle unintended injuries in children through a wide range of policies, and the Home Office's Advisory Council on the Misuse of Drugs about the harms of ecstasy. Dr Rob Anderson, Senior Lecturer in Health Economics says: "These days a single piece of research will rarely influence public policy on its own. It is

our role to identify, summarise and synthesise

the best quality evidence and help policy makers make sense of it. We are aware that our results can have a profound effect on the health of the population, which is why it is important to keep it evidence-based."

Professor Ken Stein, Director of PenTAG, agrees: "Our work is right at the point where science meets policy and helps to make decisions which affect thousands of people as evidence-based as possible. There are generally few similar opportunities for academics to show the influence of their work so clearly."

The evidence base has certainly been built in the area of energy, with even climate-change sceptics acknowledging that a shift to sustainable supplies will lead to more security.

Catherine Mitchell, Professor of Energy Policy based on the University of Exeter's Cornwall campus, is leading a research cluster into Energy Security in a Multi-Polar World. She says: "The last few years have seen Britain move from being a net exporter, to a net importer of energy. Shifts in economic and political power around the world are making Britain's energy supplies more vulnerable. Our imports and supply chains are based on plentiful supply and relatively cheap oil, not something which can be guaranteed in the future. Our research aims to help Britain find a way to manage and mitigate the significant risks we currently face."

The research cluster is building a network to link academics with policy makers, industry, non governmental organisations and the public. Analysis is underway to ensure that energy security will be maintained, with particular reference to the supply chains of oil and gas and advising on policy to develop sustainable energy technologies.

The cluster's research is led by the University of Exeter, with the University of Sussex and funded by the Engineering and Physical Sciences Research Council and the Economic and Social Research Council.



Professor Catherine Mitchell



Professor Michael Winter



Professor Ken Stein and Dr Rob Anderson

RESEARCH NEWS • WINTER 2009/10 Researchers are looking at the role that land use plays in energy security as well as securing food supplies. Professor Michael Winter OBE is Director of the Centre for Rural Policy Research at the University of Exeter. He is a political scientist with expertise in land use and agricultural policy. At a national level he sits on Defra's Science Advisory Council and Defra's Panel of Agricultural & Environmental Economists. He is also a Commissioner with the Commission for Rural Communities. More locally, his work in Devon typifies the University's commitment to sustainable development in the south west region. He has built a strategic partnership between the University of Exeter and Devon County Council to deliver research activities which further the agenda of Sustainable Rural Futures for the region. £600,000 is being invested in research to produce policy-relevant outputs to develop a sustainable future for the agri-food sector and land-based rural economic activities in Devon and the South West. Professor Michael Winter says: "Our research has to have a positive impact on the rural economy while advancing environmental sustainability. We are working towards a low carbon agriculture and post-recession rural economic recovery and sustainability a challenging agenda." A final thought on these links was given by Professor Steve Smith, the University of Exeter's Vice-Chancellor in his inaugural speech as President of Universities UK. He said: "No government, or incoming government, in any part of the UK, can achieve their core goals without a thriving, strong university sector. Universities are essential, not optional, for future social and economic success."



Vision for a creative education

Fast and unpredictable economic, social, technological and environmental change means that creative fluency is more important than ever to all of us. Governments here and abroad emphasise the role of creative and cultural education in raising achievement. But what can be done to help young people develop creative skills?

Academics from the Graduate School of Education are rising to the challenge.

Professor Anna Craft, who since 2007 has acted as Government Advisor on Creative and Cultural Education, is leading several research projects at Exeter that aim to put creativity at the heart of learning.

Dance Partners for Creativity (DPC), involves University of Exeter academics and dancers from Trinity Laban working with teachers, students and artists. They explore how lower secondary school pupils' creativity in dance lessons can be fostered through creative partnerships with dance practitioners. The brainchild of Exeter Research Fellow Dr Kerry Chappell, the project is funded by the Arts and Humanities Research Council. In June 2009, the team held its first open seminar at Exeter. Teachers, arts practitioners, policy makers working in creative partnerships and other researchers experienced some of DPC's bespoke hands-on research methods (pictured). A further seminar will be held in Spring 2010 at Trinity Laban in London to share new findings.

Anna Craft says: "The project team is discovering just how rewarding working in creative partnership can be, while also uncovering the many complexities of working in this way. Through these partnerships, traditional hierarchies between teachers and pupils are flattened so that there is greater equality and a better quality of relationship."

Creative learning is also at the heart of Aspire, a programme for primary and secondary schools across England. Aspire uses creative tools to engage pupils in generating institutional change. Changes schools are making include abandoning or re-shaping homework, allowing pupils to use mobile phones for learning and altering timetabling. Schools can work toward the Aspire Award, which recognises evidence-based success in schools in raising aspirations.

Mr Quinton van Rooyen, teacher of humanities at Charles Edward Brooke Girls' School in London, took part in the Aspire project. He said: "The experience has been very positive and beneficial. Since being involved with Aspire, I have had learning conversations with students about observed lessons and together we have planned for change in lessons, this included changing seating plans, developing student participation and introducing more student choice. I realised, more so than before, the importance of student voice."

The assessment of creativity is also a key focus of EdSteps, re-writing educational standards in the United States, for which Professor Craft acts as expert. This cutting-edge project is funded by the Gates Foundation, and is designing ways of recognising change and development in creativity, together with a means of assessing creativity in children and young people across the curriculum.

Author of seventeen books on creativity in education, Professor Anna Craft's next book, *Creativity and Educational Futures* (Trentham Books, due out 2010) will call time on the future of education arguing that educational futures involve creative means and ends, making the collective transition from what is to what might be.



People

30 new scientists, six of them professors, are being appointed to new academic posts through the University's £80 million investment in science.

23 of the scientists are now in post and the University aims to recruit all 30 scientists during this academic year. This is the first phase of recruitment and the University is aiming to increase its total number of academics from 650 to nearly 1,000 by 2015.

The initial 30 posts all support the University's research in five areas: 'Climate change and sustainable futures', 'Extrasolar planets', 'Functional materials', 'Systems biology' and 'Translational

medicine, personalised healthcare and public health'.

The Business School has had a wave of senior academic recruitment. Welcomed are Professor Jo Horton, Chair in Accounting; Professor Robin Mason, Chair in Economics; and Professor Michael Finus, Associate Professor in Economics of Climate Change. They are joined by Aurel Kucani and James Marks in Accounting, Jack Rogers in Economics, Alex Janes and Sandy Williams in management, Thomas Walmsley in Finance, Petros Vourvachis in Accounting and Carol Woodhams, Senior Lecturer in Organisational Behaviour and Human Resources Management.



Historian **Professor Alexandra**Walsham and Geographer **Professor Paul Cloke** have been welcomed as fellows of the British Academy, the national academy for the humanities and social sciences.



Professor Tim Niblock from the Institute of Arab and Islamic Studies was honoured at the Annual Arab-British Culture and Society awards, celebrating those who have made an

outstanding contribution to the British public's knowledge and understanding of the life, society and culture of the Arab people.



Professor Daryll Jagger has joined the Peninsula Dental School as Director of Clinical Dentistry and Professor in Restorative Dentistry. She joins from the University of Bristol Dental Hospital and School.

Professors John Maloney, Dieter Balkenborg and Todd Kaplan from the University of Exeter Business School have won Learning and Teaching in Economics Awards, awarded by the Economics Network.

Professor Rick Rylance, Head of the School of Arts, Languages and Literature, has been seconded as the new Chief Executive and Deputy Chair of the Arts and Humanities Research Council.



The University of Exeter has appointed **Dr Shaun Curtis** to take forward its international strategy. As Director of International Exeter, Shaun will lead Exeter in its ambition

to become one of the top 100 universities in the world.



Professor Andy Jones, School of Sport and Health Sciences, won best presentation by a senior investigator at the BASES 2009 Conference for his work on of muscle blood flow in knee-extensor exercise.

Alison Curnow from the Peninsula Medical School's Truro base has been appointed Secretary General of the International Photodynamic Association.



Dr Ruba Salih, from the Institute of Arab and Islamic Studies has been awarded the Italian Literary prize Pozzale Luigi Russo LVII edition 2009 prize for her book *Musulmane*

Rivelate. Donne, islam, modernità concerning Muslim women in a contemporary Muslim world.



Professor Sir William Wakeham has been appointed as the first Chair of the Exeter Science Park company.



Name: Dr John Love

Age: 42

Job: Senior Lecturer in Plant Molecular Biology Education:
BSc (hons) in Bioscience (First Class) from the University of St Andrews; PhD from the University of Edinburgh on cell signalling in early development of brown seaweed embryos.

Interview by email

What has been the most rewarding moment of your career so far? Obtaining my first research grant. It is something that young scientists submit on their own and obtaining the award is a mark of trust and encouragement from the scientific community. The grant from the Biotechnology and Biological Sciences Research Council was to investigate the role of calcium signalling in day-length perception in plants. Plants, like animals, use changes in daylength to monitor the seasons and adjust their development accordingly. We have developed new ways to image calcium signals in living plant leaves, which is helping us understand the role of this simple element in plants' seasonal rhythms.

What has been your major academic achievement? Building and supporting my research team which is comprised of researchers, technicians, undergraduate and postgraduate students. Our lab was established in 2003 and uses state-of-the-art molecular and cell biology to investigate cell signalling in plants during the vegetative-floral transition. I have the opportunity to work with some of the brightest and imaginative people in the world and I can honestly say that I have never been bored at work.

What do you hope to achieve at Exeter? I want us to be an ideas factory for the future based on the highest quality science. (See page 4 for more on John and his teams' research on the potential for microscopic algae and bacteria to become a future source of biofuels, supported by Shell)

If you had not been an academic, what would you have been? Ever since I was little I've wanted to be a biologist, and I'm very lucky to have achieved that. More and more, though, I realise that being a scientist is a state of mind, rather than a series of activities.



Research Briefs

The Marchmont

Observatory based at the Graduate School of Education, is examining why Europe's vocational education systems are letting down its minorities. The study will look at the needs of migrants, people with disabilities, older workers and early school leavers. The three year, €104,000 project funded by the European Union's Lifelong Learning Programme will compare vocational education and training across eight European countries.

The National Institute for Health Research has provided £1,346,575 to Professor Willem Kuyken's research in the School of Psychology looking at Mindfulness-Based Cognitive Therapy (MBCT). The new study looks at preventing depressive relapse through use of MBCT in the NHS, following on from a pilot study to determine whether MBCT was a viable alternative to drug therapy for

Dr Jacquelyn Allen-

depression.

Collinson from the Qualitative Research Unit, School of Sport and Health Sciences, has been awarded £125,000 by the Sports Council for Wales to evaluate the Mentro Allan (Venture Out) Programme, funded by the Big Lottery Fund as part of the wider UK Community Sport Initiative. The main aim of Mentro Allan is to increase activity levels amongst the 'hard to reach', less active population of Wales by increasing its recreational use of the outdoor environment. Mentro Allan aims to make parks, waterways, coastal environments and the countryside of Wales more accessible to a wider range of people. The research is funded for just over two years and employs a full-time researcher, Dr Aspasia Leledaki, a PhD graduate of the School.

Internationally acclaimed playright **Howard Barker** will be undertaking a Fellowship in Drama thanks to £245,315 funding from the Arts and Humanities Research Council (AHRC). He and **Professor Mick Mangan** will be looking at a new practice for Tragic Theatre in a project called "Plethora and Bare Sufficiency".

A new Knowledge Transfer project unites **Dr Stephen Rippon** from the School of Geography with the RSPB and Essex County Council. The project "Our Wetland Heritage: An Integrated Approach Towards managing Coastal landscapes" focuses on the Thames Gateway and has received £67,259 from the AHRC.

The impact of Charles Dickens's novels throughout the world will be examined by **Professor Regenia Gagnier**, department of English, in a £89,963 project funded by the British Academy.

The British Academy has awarded £48,248 to "Flowers of Persian Song and Verse" – an examination of Persian radio songs broadcast between 1956 and 1979. The project is led by **Dr Lenny Lewisohn** in the Institute of Arab and Islamic Studies in the School of Humanities and Social Sciences.

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Dr Julian Moger in the School of Engineering, Mathematics and Physical Sciences received £241,110 from the Engineering and Physical Sciences Research Council as part of a £1.7m award led by the London School of Pharmacy to develop new drugdelivery techniques for brain diseases with GlaxoSmithKline. Julian's cutting-edge optical imaging technology will help develop smart nanodrugs to treat brain diseases like schizophrenia, depression and dementia.

Dr Michael De Lashmutt

from the School of Classics, Ancient History, and Theology, Cornwall Campus has received £7,691 from the Nuffield Foundation to look at climate change and the Church. This research will examine the attitudes and practices of Cornish Anglican Churches regarding climate change.

The Economic and Social Research Council (ESRC) has awarded £24,040 to **Professor Oliver James'** research on "Local Public Services and Quality of Life". This explores the relationship between the performance of local public services and satisfaction with those services, and the role of expectations about performance. This continues earlier work

Professor Rob Gleave

funded by the ESRC Public

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Services Programme.

is principal investigator on "Legitimate and Illegitimate Violence in Islamic Thought", a £594,251 project, funded by the AHRC and ESRC as part of the Global Uncertainties Programme. This will examine the legal reasoning of Muslim jurists and ethical thinkers by which acts of violence are justified or condemned. The three-year project commences on I January and supports two PhD studentships and one Research Fellowship in the Institute of Arab and Islamic Studies.

The School of Arts, Languages and Literatures has won two Leverhulme Research Fellowships for research in Modern Languages. **Dr Hugh Roberts** receives £18,689 to work on a critical edition of the works of Bruscambille, while **Dr Kim Schulte** is awarded £34,847 for a project entitled "Sister Languages in Contact".

The European Commission has awarded €60,000 to support research by **Dr Alison Harcourt**, a senior lecturer in Politics who specialises in the regulation of communications markets in Europe. The funding lasts until 2012 and supports her position as Jean Monnet Chair in the Information Society.

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An ESRC First Grant of £316,000 has been awarded to **Dr Fran Martin** in the Graduate School of Education. Her project "Global Partnerships as sites for mutual learning: teachers' professional development through study visits" investigates the learning of professionals in the UK, Gambia and Southern India. It builds on a pilot study and consultation phase that was supported by a small-scale British Academy grant. The project runs from October 2009 – September 2012.

• • • Dr Grzegorz Trojanowski in

The Business School has been awarded an ESRC First Grant to finance his research project titled "Executive Compensation, Incentives, and Corporate Debt". This three-year grant is worth approximately £211,000.

The Legacy Trust for London's 2012 Olympics has awarded £136,370 to **Dr Craig Williams** in the School of Sport and Health Sciences for a study in engaging young people in 'alternative' sports and culture.

Professor Lisa Downing,

Director of the Centre for Interdisciplinary Study of Sexuality and Gender in Europe, has been awarded the 2009 Philip Leverhulme prize. This rewards outstanding scholars under the age of 36, acknowledging international recognition for her multidisciplinary research on French discourses of sexuality from the nineteenth century to the present day.

