

see how the oak extends
its vast, greening cloak
of ripened leaves –

breathing
as you and I
breathe –

at least
three hundred years
of breathing and greening –

Health, happiness
and productivity



The environmental
imperative



... this most dynamic of institutions*



Front cover image by Alyson Hallett: *Poetry on a window at the Cornwall Campus.*

Award-winning writer Alyson Hallett spent the past academic year as poet in residence working with geography students and staff at the Cornwall campus as part of a national programme to place artists and writers in higher education science departments all over the UK.

Amongst other things, Dr Hallett, who is now a Royal Literary Fund fellow based at Streatham Campus, went on a field trip to Iceland, led by Professor Chris Caseldine. The results of the team's collaboration will be published in an upcoming book of poems, photography and scientific texts.

In this issue, we examine 'the environment' in the broadest sense of the word. Climate change and the battle to save the planet are among the defining challenges of our era.

We are proud that the University of Exeter is playing a globally significant role in this area. The city of Exeter is home to some of the world's leading authorities on climate change, with scientists at the University and at our partner the Met Office contributing to the most authoritative UN report on global warming. In Cornwall, in particular, we are investing significantly in developing solutions to environment change and this issue looks at our Environment and Sustainability Institute and the new European Centre for Environment and Human Health.

Elsewhere in this issue, we explore the impact of an individual's surroundings on their well-being and productivity at work; long-established research in Psychology that has been under a recent media spotlight.

Research is increasingly inter disciplinary and the University is supporting new projects through the EPSRC *Bridging the Gaps initiative*, which fosters collaborations by academics from across the University. Read on for examples of our close links with other organisations and with business. To support our research further, last year saw the biggest recruitment drive in the University's history, increasing the number of new academic staff by almost 14 per cent in a single year.

Our investments and initiatives are not going unnoticed. This year the University has been ranked in the world's top 200 universities for the first time, an achievement we are confident we can build on and even surpass with our £350 million investment in infrastructure and facilities across our campuses in Exeter and Cornwall. The University's climb in all major UK higher education league tables has led to us reaching the top 10 of the 'Table of tables' published by *Times Higher Education*. We are also considered as among the 'Ivy League' of UK universities*.

This is the last issue of **Research News** in its present format - look out for a new digital version this winter.

Professor Nick Talbot

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

*Source: The Sunday Times



Low vitamin D and dementia

A research team from the Peninsula Medical School has helped establish the first clear link between vitamin D deficiency and the development of the cognitive problems that are a key feature of dementia.

Vitamin D is a fat-soluble vitamin present in a few foods such as oily fish. It is mainly produced when skin is exposed to sunlight. However, as people age their skin becomes less efficient at producing vitamin D, and the majority of older adults in Europe and the US have insufficient levels. Interest in vitamin D has intensified

recently because of research suggesting it may play an important role in protecting against several age-associated diseases including cancer, heart disease and stroke.

The research, led by Dr David J Llewellyn, involved over 850 older people (aged 65 or over) living in Italy. Compared to participants with healthy levels of vitamin D, participants who were severely deficient were 60 per cent more likely to experience substantial general cognitive decline, and 31 per cent more likely to experience new problems with mental flexibility.

According to the Alzheimer's Research Trust, dementia affects 822,000 people in the UK and costs the economy £23 billion per year – higher than cancer (£12 billion) and heart disease (£8 billion) combined. Moreover, the number of people with dementia is predicted to reach over 1.7 million by 2050.



Roman civilisation found in Devon



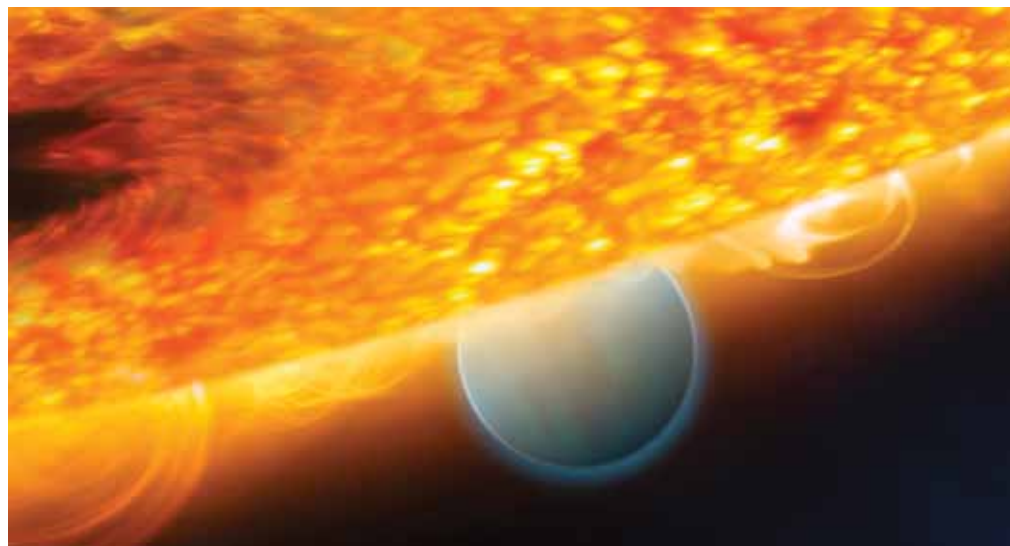
A University of Exeter archaeologist's research has uncovered the largest Roman settlement ever found in Devon. Two metal detectorists discovered nearly a hundred Roman coins in a series of fields several miles west of Exeter. Danielle Wootton, Finds Liaison Officer for the Portable Antiquities Scheme then carried out a geophysical survey and was astonished to find evidence of a huge settlement including roundhouses, quarry pits and track ways. The site covers at least thirteen fields and is the first of its kind for the county.



Wootton received funding from the British Museum, the Roman Research Trust and Devon County Council Archaeology Service. The trial excavation on the site in June uncovered evidence of trade with Europe, a road possibly linking to the major settlement at Exeter, and two burials.

Future excavations at the site are being funded by Earthwatch, Devon County Council and the University, and will be assisted by the University's Roman archaeology specialist, Dr Ioana Oltean. The project will provide the wider community and students with an exciting opportunity for fieldwork experience and training.

Hubble Space Telescope will answer key astronomy questions



An artist's impression of the Jupiter-size extrasolar planet, HD 189733b, being eclipsed by its parent star. ESA, NASA, M. Kommesser (ESA/Hubble) and STScI

An international team of scientists led by the University of Exeter is poised to answer some of the biggest questions facing astronomy today. The team has secured a large programme of nearly 200 hours on NASA's Hubble Space Telescope to explore the atmospheric conditions

of planets outside our solar system, known as exoplanets.

The research team, including scientists from the University of California Santa Cruz, California Institute of Technology (Caltech), University of Arizona, Princeton University, IAP Paris, NASA and Oxford University,

will begin its observations in October 2011. Over the next two years, the researchers will use tools developed at the University of Exeter to analyse the huge amounts of data collected. Large programmes on the Hubble Space Telescope have historically led to data sets with a lasting legacy.

The spirituality of Transition Towns

Tim Gorringe, Professor of Theology, is directing a two year project on the Transition Town movement, the community response that has developed out of the twin challenges of climate change and peak oil.

The research – funded by a £227,000 grant from the Arts and Humanities Research Council – seeks to clarify the value assumptions underlying the movement and to compare them with those of the Christian tradition.

It aims to identify in what ways, if at all, Christianity can contribute to a peaceful transition to a low energy society.

“Currently Western society, and increasingly other cultures as well, take cheap energy, food and rapid transport for granted,” says Professor Gorringe. “The question



is what will happen when the end of cheap energy makes this impossible. The difficulties caused by this will be exacerbated by the damage caused by climate change.”

The Transition movement, which, after a pilot project in the Irish town of Kinsale, began in Totnes in 2005, seeks to address this problem. It has quickly become a global phenomenon, spawning, at present, about 400 Transition groups around the world. It attempts to build communities where ‘energy descent’, or learning to live without cheap oil, will not be a threat but a promise, leading to a richer and more cooperative pattern of life.

Beetroot juice boost

The University has followed up its ground-breaking research into the impact of beetroot juice on athletes with a study showing that the physiological benefits of the root vegetable could help a much wider range of people.

In a study, published in the *Journal of Applied Physiology* and carried out in partnership with Peninsula Medical School, researchers looked at low intensity exercise and found that test subjects used less oxygen while walking – effectively reducing the effort it took to walk by 12 per cent.

Katie Lansley, a PhD student in the Sport and Health Sciences department and lead author of the new study, said: “As you get older or if you have conditions which affect your cardiovascular system, the amount of oxygen you can take in to use during exercise drops considerably.

“What we’ve seen in this study is that beetroot juice can



actually reduce the amount of oxygen you need to perform even low-intensity exercise. In principle, this effect could help people do things they wouldn’t otherwise be able to do.”

When consumed, beetroot juice widens blood vessels, reducing blood pressure and allowing more blood flow. It also reduces the amount of oxygen needed by muscles during activity. The high levels of nitrate in beetroot juice causes the increase in performance.

The research, coupled with findings that beetroot juice can help athletes exercise for up to 16 per cent longer, is generating significant interest around the world. The widespread media coverage of the research has led to a sharp increase in consumption. Waitrose, for example, saw sales of the juice jump 82 per cent last year.

Exeter leads in climate change

The city of Exeter’s position as a leading global centre for research into climate change has been cemented by the selection of 15 local scientists to contribute to the world’s most authoritative and comprehensive climate change report.

Seven University researchers are contributing to the

Intergovernmental Panel on Climate Change’s 5th Assessment Report, with the Met Office providing a further eight scientists. This means there are more experts from Exeter involved in the report, due for publication in 2014, than from any other city in the world. Furthermore, all the Exeter scientists are either co-ordinating lead or lead authors of their chapters.

The IPCC, formed in 1988 by the United Nations and joint winner of the Nobel Peace

Prize in 2007, produces its assessment reports every five to seven years, aiming to provide a clear scientific view of the state of climate change and its potential consequences.

At an institutional level, the University is also deepening its relationship with the Met Office, recently forming the Met Office Academic Partnership with the UK government agency and the Universities of Leeds and Reading.

The collaboration brings together more than 1,000 scientists working in areas from atmospheric chemistry and air quality through to weather extremes and risk management.

Julia Slingo, Met Office Chief Scientist, said: “This is the first time that a group of universities has joined forces with a leading government organisation to form a cluster of research excellence aimed at accelerating science research to benefit society.”

IN PARTNERSHIP



The sustainability of Atlantic salmon in southern Europe, the influence of pheasants' upbringing on subsequent performance and the feasibility of reintroducing of red squirrels in Cornwall are among the projects that have emerged from a new partnership with the Game & Wildlife Conservation Trust (GWCT).

Putting research into practice with the GWCT

The GWCT – whose history stretches back to the 1930s – uses science to promote game and wildlife management as an essential part of nature conservation. It has a strong track-record in turning research into real changes in land management and farming.

Under the partnership, which began in April 2010 and was initiated by the University, Nick Sotherton, the trust's head of research, has been an Honorary Visiting Professor in Biosciences and the Centre for Rural Policy Research. The partnership, which is set to run initially for five years, is the first of its kind for GWCT which also has long-standing relationships with

Southampton, Reading and Durham. Although Professor Sotherton supervises 14 PhD students nationally and oversees a team of 25 senior post-doctorate scientists, the trust is not a higher education institute and therefore is unable to award degrees.

"The partnership has gone even better than expected," said Professor Sotherton. "It had been difficult for us to fulfill the educational aims of the trust at a tertiary level.

"We offer complementary expertise to Exeter's. We also work very closely with landowners and therefore bring unprecedented access to private land."

Bridging the Gaps makes first awards

The first research ideas to win support from *Bridging the Gaps* include such variety as the reconstruction of a Victorian computer device and the tackling of a disease threatening Japanese larch. This three year Engineering and Physical Sciences Research Council initiative aims to develop multi-disciplinary working environments. The University successfully bid (as the Exeter

Science Exchange) for a £500,000 grant.

"While organising academic management along research thematic or departmental lines clearly ensures effective exchange of ideas within groups with a common agenda, it often forms a barrier to development of really novel research ideas that may come from 'left field' combinations of quite different disciplines," says Professor David Butler, the project's lead. "Even when these potentially ground-breaking complementarities are identified in different research areas, it is often

hard to find the initial funding to pump-prime their development."

The project, which is directed by representatives drawn from all six academic colleges, has four interlinked strands of activity. The first three – communication, innovation and policy – aim to spark interest and engagement across disciplines, while the fourth provides support through a development fund for promising multidisciplinary ideas.

Funding can be used for a range of activities, such as writing a proposal for external funding,

carrying out a feasibility study or holding a workshop to develop ideas.

The largest award to date is a £5,500 grant for a project exploring the relations between creativity in mathematical and biological systems, creativity as a mental process, and creativity in the social world. It brings together academics from across the University, including politics, mathematics, psychology, law, education, medicine and business.



Work in progress

SETsquared: Exeter has joined the SETsquared university collaboration that aims to boost research-led economic growth through the commercialisation of academic research. Exeter joins the universities of Bath, Bristol, Southampton and Surrey. In five years, the partnership has supported 650 companies to raise £150m in capital and create over 1,000 jobs.

The Centre for Additive Layer Manufacturing (CALM): A new £2.6 million facility in the College of Engineering, Maths and Physical Sciences is bringing '3D printing' to businesses, entrepreneurs and researchers. A new production technique, 3D printing can create complex or bespoke parts, as well as complete products, by building them up one layer at a time. The centre's funders are the European Regional Development Fund, South West Regional Development Agency, the University and EADS Innovation Works.

Health, happiness and productivity: the environmental influence

Two major television series have showcased University of Exeter psychological research to a mainstream audience. The BBC's *'The Young Ones'* and Channel 4's *'The Secret Life of Buildings'* drew on over ten years of Exeter research into the influence of a person's environment on their health, happiness and productivity. Research with the elderly and in work environments is now having significant commercial implications.

In a BBC series, *'The Young Ones'* which aired last autumn, residents of a care home were seen changing their surroundings using plants, new paint and artworks. The experiment showed that older people who are given choice over and responsibility for their living space feel healthier and happier, and show improved memory and concentration.

The findings were based on research collaboration between the University and Somerset Care, which analysed the effects of involving residents in the redecoration of communal areas.

The study, which was carried out by the University's Dr Catherine Haslam, Professor

Alex Haslam and Dr Craig Knight, found that residents involved in redecorating their living space were three times more likely to use that space than before and four times more likely to use it than residents who were not part of the decision-making process.

The research – which won Somerset Care National Dementia Care Award – has been applied in the company's 26 homes in the South West. It has also been highlighted in *'The Social Cure'*, a book published this year and edited by Professor Jolanda Jetten, also of the Psychology department, Dr Haslam and Professor Haslam.

This is part of a wider interest in the psychology of working and living space at the University. Craig Knight (*pictured*) arrived as a student in 2003 having worked in office design for many years. His PhD and subsequent research involving more than 2,000 office workers, funded in part by the Economic and Social Research Council (ESRC), have demonstrated, for example, that employees with control over the layout of their workspace are up to 32 per cent more productive than their peers at work in an imposed clean, lean environment.



The research was picked up by Channel 4's *The Secret Life of Buildings*, where an experiment was conducted in the flagship London offices of Deloitte, the professional services firm.

Craig explains: "Many office environments feature very minimalistic internal spaces that are free of so-called 'distractions'. These designs are supposed to lead to improvements in productivity as the employee is less likely to be sidetracked away from the task in hand. Psychological evidence suggests that, in fact, the reverse is true. Our experiment involved measuring the productivity of groups working in this 'lean' environment with those into which plants were introduced and, going a stage further, those who were able to personalise their own space."

Whilst the results of the Deloitte study are yet to be finalised, interim figures suggest that productivity improvements are in line with Knight's previous research and have been achieved through relatively simple and cost effective changes. Alex Haslam, Knight's colleague in much of this research remarks: "Our research demonstrates that people not only work more efficiently but experience

higher levels of well-being when they have some control over their work environment, rather than having 'good' design imposed upon them. Good architecture is about identity realisation not identity suppression."

The research forms part of a wider project, funded by the Dutch Flower Council, and conducted jointly with Ambius, the largest provider of rental plants in the world.

In parallel with his PhD, in 2005 Dr Knight helped set up and became Director of Prism (an acronym for Psychological Research into Identity and Space Management), a consultancy based at the University's Innovation Centre on the Streatham campus.

Originally under the aegis of the Psychology department, Prism is due to become a separate company this autumn and aims both to improve lives and increase a business's effectiveness and profitability. Current projects for Prism include advising Achmea, one of the biggest financial services group in The Netherlands.

“

Good architecture is about identity realisation not identity suppression.

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Photography: Tim Petridge

The environmental imperative

by Virginia Marsh



Cornwall is home to two of the University's most significant new research investments, both in the increasingly high profile environmental field.

May 2011 saw the official launch of the European Centre for Environment and Human Health (ECEHH) while, in April, construction work got underway on what is set to be one of the UK's most environmentally-friendly buildings, the home for the new Environment and Sustainability Institute (ESI) on the Cornwall campus, near Falmouth.

Both projects build on the University's existing strength in environment-related research in Cornwall and will work closely with, amongst others, the Centre for Ecology and Conservation, the fastest growing institute of its kind in the UK.

"Cornwall is a natural laboratory," says Professor Mark Overton, Deputy Vice-Chancellor (External Affairs) who oversees the University's operations in Cornwall.

"These new initiatives originated in different areas but were developed in collaboration and complement each other."

Financed in part by the European Union, ECEHH will look at the complex and interactive relationship between the environment and human health. It is an initiative of the Peninsula College of Medicine and Dentistry (PCMD) - a joint venture with the University of Plymouth and the NHS in the South West of England. It will work from the expanded Knowledge Spa at Treliske, Truro as well as from laboratory-based facilities within the ESI.

It is led by Professor Lora Fleming, formerly of the University of Miami where she was a professor in both the

Medical and Marine Schools, with particular interests in environmental and occupational health and epidemiology.

Setting up ECEHH involved excellent foresight, says Professor Steve Thornton who 'inherited' the project when he became Dean of PCMD last year (*see page 8*). It is "absolutely right for what we do and absolutely right for Cornwall".

The ESI, meanwhile, positions Cornwall at the forefront of environmental and climate change technologies, and also involves EU funding – the European Regional Development Fund Convergence Programme is providing almost £23 million of the £30 million investment. It aims to make good commercial use of existing local knowledge in these fields as well as create a world-class research institution to increase that knowledge. It will work across three main research themes: clean technologies, natural environment, and social science and sustainability – and is headed by an award-winning ecologist, Professor Kevin J. Gaston, formerly of the University of Sheffield.

Both the ECEHH and the ESI are geared towards fostering inter-disciplinary



Peter Eals. Courtesy of Butterfly Conservation

Small Copper butterfly





Photo: Tim Alsop

research. The new ESI building, for example, will house more than 100 academics from a range of fields, in contrast to the virtual working environments of some rivals, says Professor Overton.

They will also work closely with business, reflecting a new stage of development for the University in Cornwall, now that the campus there is firmly established.

“The campus has provided a massive economic boost to Cornwall,” says Professor Sir Steve Smith, Vice-Chancellor. “The ESI is a pioneering development in linking academia so closely with business and our staff have been actively helping Cornish businesses to succeed.”

The University now has about 1,700 students based at the Cornwall campus which is shared and jointly managed with University College Falmouth.

“The first phases concentrated on staff and students, and on establishing higher education in Cornwall,” says Professor Overton. “Now we are looking to create jobs through development of the knowledge economy.”

Photo: Tresco 2007 by Alistair MacNichol. All rights reserved



Healthy planet, healthy people?

Human health and well-being in urban environments will be examined by one of the first research initiatives involving the new European Centre for Environment and Human Health (ECEHH).

Funded by the European Union and led by the University, the three year €3.5 million ‘Urban Reduction of Greenhouse Gas Emissions in China and Europe’ project will look ahead to 2030 and 2080 and focus on seven cities across Europe and China. These range in geography, climate and size, from Xi’an in China, home to more than eight million people, through to Kuopio in Finland which has a population of less than 100,000.

Project leader Professor Clive Sabel from the Geography department and ECEHH said: “Every policy to tackle greenhouse gas emissions has a potentially profound effect on human health. That could be positive or negative, so in order to make that assessment we have to look at all the evidence and relate it to the on-the-ground technical, social, economic, political and cultural realities.”

Amongst other things, the research could inform how cities are developed in future.

“In China, new megacities are being built from the ground up – so this is an ideal opportunity to inform that process,” said Professor Michael Depledge, Chair of Environment and Human Health at ECEHH. “At the moment human health isn’t a major factor in city planning, yet the way buildings, developments, or cities are planned can have a huge impact on health.”



Photo: Michael Depledge

Dean's research aspirations for PCMD

It is a year since **Professor Steve Thornton** took up his post as Dean of the Peninsula College of Medicine & Dentistry (PCMD), a joint initiative between the Universities of Exeter and Plymouth. He has been given a mandate to provide 'excellent education' and expand the highly-rated medical school's research activities to match those of its longer-established and larger rivals, and to build on an already strong partnership with the NHS in the South West.



"This organisation has been built from scratch in around ten years. My predecessor did a great job, leaving many areas of strength in both research and education," says Professor Thornton in his office overlooking the Royal Devon & Exeter hospital.

An obstetrician, Professor Thornton succeeded Professor Sir John Tooke, the college's founding Dean, after spending 12 years at the University of Warwick Medical School where latterly he was Associate Dean for Clinical Research. From 2006 to 2010, he also chaired the Scientific Advisory Committee of the Royal College of Obstetricians and Gynaecologists.

Despite being a relative newcomer that admitted its first students in 2002, PCMD is already a top ten medical school. In the latest Guardian University League's medical rankings, it achieved eighth position for the second year in a row, up from 20th two years ago, making it the highest placed of the 'new' medical schools. It now has more than 450 staff, over 1,500 students and annual turnover of about £70 million.

In terms of research, PCMD has a strong international reputation in diabetes and cardiovascular disease; neuroscience, health services research and the impact of the environment on human health.

"There is national pressure for research concentration. So, to an extent, it makes sense to capitalise on our strengths" says Professor Thornton.

In the paediatric field, the college is one of the partners in Exeter's first Paediatric Clinical Research Facility, launched in March, while, as PCMD Dean, Professor Thornton oversees the new European Centre for Environment and Human Health (ECEHH), based at the Knowledge Spa in Truro (see page six).

He will also oversee a new £19 million Centre for Translational Medicine in Exeter which has received a substantial grant from the *Wellcome-Wolfson Capital Awards* initiative. This will also be supported by considerable additional funding from the Royal Devon & Exeter NHS Foundation Trust, PCMD and the University.

The centre will focus on research to improve understanding of the causes of diabetes and related conditions, and on translating that understanding into personalised patient care. Based at the RD&E, it will bring together, in a new building, clinical and biomedical scientists working in human genetics, cell biology, human physiology and interventional studies of diabetes.

"Amongst other things, we will be able to integrate science and teaching," says Professor Thornton of the new centre.

Looking ahead, a further key objective is to establish PCMD as a leading centre for clinical trials.

"This area is undergoing big changes nationally, with the UK losing clinical trials to eastern Europe. NIHR (the National Institute for Health Research) is reversing that trend and keeping trials here," he says.

"We are already a nationally-accredited clinical trials unit. I want to expand that so we are known for delivering the highest quality trials."

“

... a further key objective is to establish PCMD as a leading centre in clinical trials.

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People



Name:
Dr Francesca
Stavrakopoulou

Age: 35

Job:
Senior Lecturer in
Theology and Religion

Education:
BA Oxford;
MSt Oxford; DPhil Oxford

Interview by email

What has been the most rewarding moment of your career so far?

*The past year – I completed three major writing projects, including a tricky research monograph about the veneration of the dead in ancient Israel. I also won an AHRC Early Career Research Fellowship. Given the increasingly competitive climate, that really took me by surprise! But the most exciting thing was making the BBC TV series **The Bible's Buried Secrets**. It was a three-part documentary series, in which I presented my views about the ways in which key archaeological discoveries seriously challenge biblical claims about the history and religion of ancient Israel. Following several months of writing and discussion with a fantastic production team, I spent last summer filming in the Middle East. It was great fun, but also hard work – especially working out how to make complex scholarly ideas both accessible and visually exciting to a TV audience.*

What excites you about your research?

Being a detective. In my field there are still so many unknowns. I enjoy the challenge of finding new things about what is probably the best known collection of texts in the Western world. That challenge is made all the more complicated by the fact that I'm a secular academic working in a field in which many scholars remain personally and confessionally invested in the Bible. My research is sometimes perceived to be unsettling by those more certain of the historical reliability of the Bible than I am – particularly because I engage anthropological and archaeological perspectives to tackle culturally-sensitive topics like child sacrifice, the use and abuse of corpses, and the worship of the dead.

What do you hope to achieve at Exeter?

I'd like to strengthen biblical studies here even further. It's so rewarding to see the ways in which students become critical and intellectually rigorous readers of the Bible. And it might sound like I'm toeing a party line, but I'd honestly like to continue working with my colleagues to make the Department of Theology and Religion the most respected in the UK. We've got a great reputation already, but we're not the sort of people to take it for granted!

If you had not been an academic, what would you have been?

Like most academics, I feel immensely privileged to be paid to read, write and talk about the things that give me a buzz. I can't imagine doing anything else. But if I really had to choose something else, I'd probably be a zoo keeper. As a child, I was crazy about lions.

Ten Exeter professors have been chosen as expert panel members for the 2014 Research Excellence Framework by HEFCE. They are **Barbara Borg, Mike Boots, David Butler, Peter Cox, Tia DeNora, Rob Gleave, Mark Jackson, Andy Jones, Debra Myhill** and **Roy Sambles**.

Professor John Dupré, Director of Egenis, has been elected a Fellow of the American Association for the Advancement of Science (AAAS).

Professor Peter Vukusic is this year's Institute of Physics Schools Lecturer for Ireland, delivering the annual Tyndall Lecture series

Professor Willie Hamilton has joined the Peninsula College of Medicine and Dentistry in the newly-created post of Professor of Primary Care Diagnostics.

Professors David Butler and **Dragan Savic**, both from the Centre for Water Systems, have become among the first Fellows of the International Water Association.

Professor Roger Eston, Dr Steve Gaskin, Professor Alex Haslam, and **Will Katene** have received National Teaching Fellowships from the Higher Education Academy for their outstanding contribution to student learning.

Professor Andrew Hattersley, PCMD, has been elected a Fellow of the Royal Society.

Professor Dionisius A Agius of the Institute of Arab and Islamic Studies has been elected as a Fellow of the British Academy.

Professor Ann Barlow has been appointed as the academic member of the Family Justice Council, an independent public body funded by the Ministry of Justice chaired by President of the Family Division, Sir Nicholas Wall.

Professor Nina Wedell of the Centre for Ecology and Conservation has been given the Royal Society Wolfson Research Merit Award.

Professor Gilles Chabrier has been awarded the Eddington medal by the Royal Astronomical Society.

Professor David Stephenson has been elected a member of the Academia Europaea.

Professors Matthew Collins, Peter Cox, John Thurn and **David Stephenson**, from the College of Engineering, Mathematics and Physical Sciences, helped propose and convene an innovative programme that brought together some 150 world-leading mathematicians, statisticians and climate scientists. Based at the Isaac Newton Institute for Mathematical Sciences in Cambridge, the EPSRC-funded project looked at the mathematical and statistical approaches to climate modelling and prediction.

Research Briefs

The University has been awarded £1.1 million under the Universities Modernisation Funding stream.

The funding will be used to develop an integrated Research Management and Administration System (RMAS). Once implemented, this will provide Exeter and others with the tools to streamline the research support process, enabling them to manage an increased number of projects.



Professor Anne Barlow is bringing £280,000 of Economic and Social Research Council (ESRC) funding to the **School of Law** for a project titled 'Mapping Paths to Family Justice'. It will explore the relative merits and normative discourses of different styles of Alternative Dispute Resolution in Family Law disputes.



Professor Philip Schwyzer, English, has been awarded a grant of £209,000 from the Leverhulme Trust to study histories of memory in sacred space, in conjunction with Professor Howard Williams of the Archaeology department at the University of Chester. The interdisciplinary project 'Speaking with the Dead: Histories of Memory in English Sacred Space' will investigate commemoration in five English cathedrals – Canterbury, Chester, Durham, Exeter and St Albans.



Professor Oliver James, Politics, is participating in a €2.7 million European-funded research programme investigating the impact of public service reform and assessing the prospects for the future.

Professor Nick Kaye, Dean of the College of Humanities, and two colleagues at the University of Bristol have been awarded a £406,000 grant from the Arts and Humanities Research Council (AHRC) for research into live art and performance archives. The three-year project aims to create collaborations between research academics, creative artists and curators in developing models for the re-use of performance archive.



The **Drama** department is leading a two and a half year project that will document the cultural history of Southall, the London suburb, since 1979. It has been awarded a grant of £165,000 from the AHRC and will work in partnership with Roehampton University, 'The Southall Story' organisation and the Royal Geographical Society. The project's outputs include a co-authored book, a digital archive, a symposium and an exhibition.



Professor Bill Barnes, Physics, has received a grant of £143,405 from the Leverhulme Trust for research on 'Plasmonics and gain: underpinning science'.



Professor Tony King, Sociology and Philosophy, has been awarded £144k from the ESRC for a project on combat, cohesion and gender. The project explores the performances of women as infantry soldiers in today's armed forces and involves research on the British, American, French, German, Canadian and Danish Armies.

Professor Steve McCorrison, Business School, is leading a €1 million research project on factors determining food prices throughout the EU. The consortium involves 13 universities and is financed by the European Commission. Exeter's share of the project is €199,000.



Biosciences has signed a memorandum of understanding with the Food and Environment Research Agency (Fera) aimed at promoting the exchange of expertise and knowledge. Fera is a government agency.



Exeter is part of a consortium that has been awarded £200,000 by the Higher Education Funding Council for England (HEFCE), to develop an innovative strategic project in the field of Education for Sustainable Development. The 'Leading Curriculum Change for Sustainability' project will be undertaken in collaboration with the universities of Aston, Brighton, Gloucester and Oxford Brookes.



PCMD is one of 13 academic institutions and businesses across Europe to form a €6 million research and analysis network, funded by the EU for a five-year period, which is designed to investigate the possible role of virus infection in the cause of type 1 diabetes. Proof of this concept could lead to the development of a vaccine to prevent diabetes in children.

Researchers around the UK are taking part in a major initiative to study *Campylobacter* – the country's leading cause of food poisoning. **Professor Richard Titball** in Biosciences will decipher the molecular basis of environmental persistence in *Campylobacter* using a system approach, hoping to develop more effective methods to eliminate bacteria from the food chain. The project is funded through a joint call for proposals managed by BBSRC, the Food Standards Agency and Defra, sharing a total of £4 million funding.



Grand Challenges Explorations, an initiative created by Bill & Melinda Gates Foundation that enables researchers worldwide to test unorthodox ideas that addresses persistent health and development challenges has awarded additional funding. **Professor Dave Newman** is leading a team of University of Exeter engineers to develop a handheld, inexpensive battery-powered instrument that can rapidly diagnose malaria. The project's first phase produced a compact hand-held device able to diagnose malaria under laboratory conditions. The Phase II, simpler and more robust devices will undergo development and clinical testing in field conditions in Thailand and Kenya.