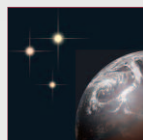




Developing  
solutions for  
global problems

Searching beyond  
our solar system



Writing, nature  
and place



**£210m investment in research:**  
 £120m in new buildings and facilities for research  
 £90m in staff and projects in science, engineering, maths and medicine

This is my first Research News as Deputy Vice-Chancellor for Research and Knowledge Transfer. This issue highlights the global impact of research at the University of Exeter through projects that prevent malaria, improve water supply and, in my own research team, tackle rice blast disease which causes starvation worldwide. We take the global theme out of this world, with an exploration of extra solar planets, one of our five key science research themes of international importance. And we also look at the inspiration provided by landscape.

From this summer, the academic structure at the University of Exeter will be reorganised to move from nine Schools to six Colleges. The new academic structure will ensure that academic disciplines can flourish, whilst enabling them to feed into a rich interdisciplinary research and teaching environment. Creating these stronger academic units will enable the University to build capacity in research and teaching.

The University is looking to significantly increase the number of academic staff almost doubling the numbers of research scientists at Exeter and investing £5 million per year in new posts over the next three years.

We are investing in future researchers too; over 100 funding awards have been recently announced to develop and attract the best PhD candidates to the University.



Read on to see the wealth of research to which they will be adding.

**Professor Nick Talbot**

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

	Dean	Associate Dean for Research and Knowledge Transfer
<b>College of Humanities</b> Archaeology, Classics, Drama, English, Film, History, Modern Languages and Theology	Professor Nick Kaye	Professor Andrew Thorpe
<b>College of Social Science and International Studies</b> Education, the Institute of Arab and Islamic Studies, Law, Philosophy, Sociology, Politics and Flexible Combined Honours	Professor Tim Dunne	Professor Debra Myhill
<b>College of Life and Environmental Sciences</b> Biosciences, Geography, Psychology and Sport and Health Sciences	Professor Mark Goodwin	Professor Allen Moore
<b>College of Engineering, Maths and Physical Sciences</b>	Professor Ken Evans	Professor David Butler
<b>University of Exeter Business School</b>	Professor Richard Lamming	Professor John Bessant
<b>Peninsula College of Medicine and Dentistry</b>	Professor Liz Kaye (acting)	Professor Angela Shore

## Penalty pressure has eye effects

Research by the University of Exeter shows for the first time the effect of anxiety on a footballer's eye movements while taking a penalty.

The study shows that when penalty takers are anxious they are more likely to look at and focus on the centrally positioned goalkeeper. Due to the tight coordination between gaze control and motor control, shots also tend to centralise, making them easier to save. The research was published in the *Journal of Sport and Exercise Psychology*.

The researchers attribute this change in eye movements and focus to anxiety. Author Greg Wood, a PhD student in the University of Exeter's School of Sport and Health Sciences said: "During a highly stressful situation, we are more likely to be distracted by any threatening stimuli and focus on them. Therefore, in a stressful penalty shootout, a footballer's attention is likely to be directed towards the goalkeeper as opposed to the optimal scoring zones (just inside the post). This disrupts the aiming of the shot and increases the likelihood of

subsequently hitting the shot towards the goalkeeper, making it easier to save."

Research focused on members of the University of Exeter

football team, who wore special glasses, which enabled the researchers to analyse the focus of each footballer's gaze (pictured).



## The Bible and the environment

Professor David Horrell, a Biblical scholar at the University of Exeter, has recently completed a project that looked critically at the kinds of environmental and ecological appeals made to the Bible.

The project, funded by the Arts and Humanities Research Council (AHRC), looked at both the negative and positive appeals to the Bible. This ranged from those that see the Bible as a text that teaches human pre-eminence and imminent destruction for the Earth to those that see the Bible as a 'green' book that teaches stewardship and care for the Earth. The research shows that

both sides of the debate tend to present their views as what the Bible 'says', ignoring the extent to which all such views are interpretations, shaped by the convictions and interests of their proponents.

Professor Horrell said, "Religion not only shapes people's spiritual beliefs, but their practical, political, and economic behaviour too."

He added, "The project is also trying to show ways the Bible can help to re-shape the Christian tradition in a way that takes the environmental challenge on board. The challenge to members of all religions, not just Christians, is to show how their scriptures and traditions can be reinterpreted and reconfigured, to face the challenges of a contemporary crisis."

## People affected by autism believe increase is 'real' not diagnostic

There has been a marked increase in the number of children diagnosed with autistic spectrum disorders over the last two decades – the question is why? Researchers have found a sharp difference between the beliefs of ordinary people and medical experts about the reasons for the increased incidence of autism.

A study carried out by researchers from the Universities of Exeter and Bristol examined the ideas put forward in unsolicited correspondence to scientists carrying out research into the causes of autism.

"There is no doubt that the reported prevalence of autistic spectrum disorders has increased spectacularly over the last 20 years," said researcher Ginny Russell. "Medical consensus is that the increase is not a 'real' increase in cases but is the result of the diagnosis being made more often."

She adds: "But our examination of letters and phone calls received by scientists carrying out research into the environmental causes of autism shows that, in the opinion of many people in contact with autistic children, it is not diagnosis but true incidence which has increased, and these people think that we should be investigating what factors have led to this increase. They believe that it goes hand in hand with environmental hazards and lifestyle changes in the late 20th and early 21st century, changes which are causing autistic spectrum disorders to occur more often."

The researchers, from Egenis, a research centre at the University of Exeter, and the department of community based medicine at the University of Bristol, have published their findings in the journal *Child: Care, Health and Development*.



## Directors' Dealing Secrets revealed

Research released by the University of Exeter Business School suggests investors could generate impressive returns by following company directors' Buy trades of 'value' stocks. The same success cannot always be matched by following directors' Sell trades in 'glamour' stocks.

Professors Alan Gregory and Ian Tonks found that company directors consistently trade in a contrarian fashion. They buy more 'value' stocks priced at a low level compared to a fundamental financial indicator such as earnings or accounting value of assets. Directors sell more high-priced 'glamour' stocks, and they buy following price falls and sell following price rises.

The research covered every director's share trade made on

the London Stock Exchange between 1986 and end of 2003. Post trade share price performance was analysed over a two year period (to end 2005). The heaviest out-performance was concentrated in smaller value companies. Directors' trades in these small value stocks show an average abnormal share price return of up to 20% more than control groups of similar firms over two years. Directors' trades in large value stocks shows a more modest outperformance of just over 6% over the same period.

Professor Alan Gregory says: "Our research shows that corporate insiders make use of their private information to generate abnormal returns. This information is not reflected in the metrics constructed from publicly available information."



Pic: Chris Jiggins, University of Cambridge

## Exeter scientist discovers how the butterflies got their spots

How two butterfly species have evolved exactly the same striking wing colour and pattern has intrigued biologists since Darwin's day. Now, a team of scientists from the Universities of Exeter and Cambridge have found 'hotspots' in the butterflies' genes that they believe will explain one of the most extraordinary examples of mimicry in the natural world.

The study has been published in leading academic journal *PLoS Genetics*.

Heliconius, or passion-vine butterflies, live in the Americas – from the southern United States to southern South America. Although they cannot interbreed, *H. melpomene* and *H. erato* have evolved to mimic one another's colour and pattern perfectly.

Scientists have studied these butterflies since the 1860s as a classic case of evolution in

action, but only now is modern sequencing technology unlocking the underlying genetics. Scientists have pondered whether when different species evolve to look the same, they share a common genetic mechanism. Because there are thousands of genes in the butterflies' genome, most scientists felt it was unlikely that the same genes should be involved. But the results of this study suggest that this is, in fact, the case.

Professor Richard Ffrench-Constant said: "Now we know exactly which genes trigger which colour patterns. This then allows us to understand how the butterflies have evolved to look the same using the same genes. These genes not only make butterflies look colourful but also enable them to signal to birds that they are nasty to eat."

## Stain repellent chemical linked to thyroid disease in adults

A study by the University of Exeter and the Peninsula Medical School for the first time links thyroid disease with human exposure to perfluorooctanoic acid (PFOA). PFOA is a persistent organic chemical used in industrial and consumer goods including nonstick cookware and stain and water-resistant coatings for carpets and fabrics.

Published in the journal *Environmental Health Perspectives*, the study revealed that people with higher concentrations of PFOA

in their blood have higher rates of thyroid disease. The researchers analysed samples from the US Centers for Disease Control and Prevention's nationally representative **National Health and Nutrition Examination Survey (NHANES)**.

Tamara Galloway, a professor of Ecotoxicology at the University of Exeter and the study's senior author, says: "Our results highlight a real need for further research into the human health effects

of low-level exposures to environmental chemicals like PFOA that are ubiquitous in the environment and in people's homes. We need to know what they are doing."

The researchers found that the individuals with the highest 25% of PFOA concentrations (above 5.7ng/ml) were more than twice as likely to report current thyroid disease than individuals with the lowest 50% of PFOA concentrations (below 4.0ng/ml).



IN PARTNERSHIP



THOMSON REUTERS

**The University of Exeter has been working with Thomson Reuters** for nine years to develop a broad relationship for mutual benefit. Thomson Reuters is the world's leading source of intelligent information for businesses and professionals. 90% of the group's revenues now derive from the provision of financial services to industry professionals worldwide, as well as being the largest news agency in the world covering 180 countries.

Research activity is centred on the Thomson Reuters Financial Information Laboratory. Opened in 2006, the room boasts terminals installed with Thomson Reuters products to allow academic

researchers and postgraduate students to use the same high-speed informational and analytical tools as finance professionals worldwide. MBA and PhD students are trained on using the databases and offer valuable feedback on functionality. Exeter is among only a handful of UK universities to have such a facility.

There are strong local links with the global brand, ranked 40th in the BusinessWeek 2009 ranking, through offices in Exeter and Tiverton. Five scholarships awarded to finance postgraduate students offer an introduction to operations and sharing of information on internships and employment opportunities. Several high quality graduates have gone on to work

with the firm, and Thomson Reuters have also hosted projects undertaken by students on the Exeter MBA. Both the University and Thomson Reuters are involved with economic development activity in Exeter and the region, including Exeter's Science Park.

Delphine Jones, Head of Talent and Learning Content, Thomson Reuters says: "Working with the University of Exeter is an excellent strategic opportunity for us; the links with the Centre for Finance and Investment (Xfi) have proved invaluable. We are able to tap into research strengths and we work closely on a wide range of projects together."

## Research leads focus on anti-Muslim hate crime



A new report reveals the trends behind underreported violence against Muslims in London. It illuminates how contexts of fear and prejudice are providing a basis for violence against Muslim communities. This is the first step in a ten year research project led by the European Muslim Research Centre at the University of Exeter that will investigate Islamophobia and anti-Muslim hate crime in towns and cities across Europe.

Dr Jonathan Githens-Mazer and Dr Robert Lambert MBE co-authored 'Islamophobia and

Anti-Muslim Hate Crime: a London Case Study'. This report was launched in partnership with Muslim community groups (pictured) to provide research for and about Muslims in Europe.

The evidence for the report arises from original in-depth interviews with victims of anti-Muslim hate crime, and in some cases perpetrators of racist crimes. The report is intended to introduce politicians, public servants, police, media and public to Muslim community perspectives that are often hidden.

## Work in progress

**Centre for Palestine Studies.** The first Centre for Palestine Studies in Europe has been established at the University of Exeter. The Centre will provide a unique PhD in Palestine Studies and host a series of research activities and events. The newly created Centre is housed within the University's Institute of Arab and Islamic Studies. It will be directed by the historian Professor Ilan Pappé, known internationally for challenging traditional beliefs about the development of the Israel-Palestine situation.

**Consumer behaviour.** Jonathan Schroeder at the University of Exeter Business School is taking part in a project to research consumer behaviour across 31 countries in Europe. This is the first time a study of this magnitude has ever been undertaken and the team hope that the results will be used by businesses, academics and public organisations well into the future. The European Commission has awarded €594,000 funding to the project consortium.

**Study visits to developing countries.** A three year research project led by the University's Graduate School of Education is investigating what teachers learn about global partnerships and development issues through study visits to developing countries. The research investigates the learning of teaching professionals in the UK, Gambia and Southern India, and has received £323,000 funding from the Economic and Social Research Council (ESRC). It looks at ways in which intercultural learning between professionals in the UK and overseas challenges stereotypes, develops understanding of relationships with the country, people and resources and the impact that study visits have on the host countries.

# Developing solutions

Research at Exeter has a global impact – the most recent Research Assessment Exercise rated nearly 90% as being of internationally recognised quality. Researchers are working to make the world a better place through tackling disease, advising on managing scarce resources and by building research partnerships with leading universities and organisations around the world.

## Saving lives

Some might argue that malaria is the world's biggest problem, it's certainly Africa's biggest killer and a particular danger to children. Accurate diagnosis is a key step on the journey to eventual eradication. Currently, the two available testing methods both have significant problems associated with them. One requires specialist training and clinical conditions whilst the other, the malaria rapid diagnostic test, is expensive and needs to be kept at the right temperature, thus limiting its shelf life.

A team of scientists at the University of Exeter, led by Professor Dave Newman, have been working towards developing a faster and cheaper alternative and, helped by a grant from the Bill and Melinda Gates foundation, are making significant progress. Professor Newman explains "Our technique gives a positive or negative reading for malaria in less than a minute from a fingerprick blood sample. We have reduced the size of the test equipment from a domestic fridge into something that is handheld – now we need to trial the new prototype in the field. If successful we could potentially equip health workers throughout malaria infected areas in the developing world with these devices at a relatively low cost thus saving many, many lives."

## Water works

Engineers in the Centre for Water Systems in association with three universities in Pakistan are leading a three year project jointly funded by the British Council and Department for International Development. The project is aimed at building capacity for urban water demand management in developing countries. As the project leader Dr Fayyaz Ali Memon

explains "Climate change is already impacting on the availability of water in urban areas in the developing world, a situation which is likely to worsen over time. This research hopes to establish pilot scale greywater recycling projects using low cost, locally available materials in Pakistan to investigate their performance in predominantly hot climates. We hope that this will significantly enhance the knowledge base in this area."

The team has a number of other objectives from their work. These include creating a web based online resource on water demand management (WDM); developing a nationwide network of stakeholders from higher education institutes, industry and government to gather the necessary critical mass to facilitate development, exchange and promotion of knowledge on WDM; developing a dedicated MSc level module on WDM and organising a series of national level training workshops and an international conference on sustainable water management. Dr Memon has also secured support for the conference from several international organisations including UNESCO and Water Aid. Dr Memon concludes "Water scarcity is already contributing to conflicts around the world. Further funding and more research into urban WDM could have a considerable impact on a global issue."

## Protecting rice crops

Researchers in the School of Biosciences are studying the devastating rice blast disease, which each year destroys enough rice to feed 60 million people. The disease, caused by a fungus, occurs throughout rice-growing regions of the world and has recently caused epidemics in Korea and China.

Exeter researchers were part of the international team which first sequenced the genome of the rice blast fungus in 2006 and they have now used next generation DNA sequencing facilities at Exeter to compare the genomes of isolates of the fungus from around the world.

Professor Nick Talbot who leads the research said "We are trying to find out what makes this

“  
Water scarcity is  
already contributing  
to conflicts around  
the world”

Rice blast disease in Hunan  
Province, China





# for global problems

by Liz French

fungus special in being able to cause such an aggressive disease. By comparing strains with different virulence, we can learn more about the precise genes which allow disease to occur.”

The Exeter group have also developed new high throughput methods to study rice blast disease using targeted gene knockouts. This method precisely deletes a single gene from the fungus, allowing its role to be investigated. The research, published recently in *Proceedings of the National Academy of Sciences USA*, is a major breakthrough in studying the disease process.

“By harnessing the power of genomic research, we can rapidly develop a detailed understanding of rice blast disease and use this to guide new strategies for its control” said Professor Talbot.

Exeter’s research on rice blast is currently funded by £3 million of grants from the Biotechnology and Biological Sciences Research Council (BBSRC), the agricultural biotechnology industry, development agencies and philanthropic trusts. Of particular importance is the Halpin scholarship programme, supported by an Exeter alumnus, which provides scholarships to young scientists from the developing world to come to Exeter to train in rice blast research.



# Searching beyond our

The University's £80 million investment in science is attracting the best new academics and PhD students to Exeter. One result is that the University now has one of the largest groups in the UK working in the fields of extrasolar planet research and star and planet formation. *Research News* looks at some of the key issues the group is working on as the focus shifts from our own Solar System to other planetary systems.

The last century saw huge advances in our understanding of astronomy. Space exploration took us to places we had previously only gazed at in the night sky and new technology enabled us to understand the structure of planets and stars, how they formed in the first place and the way they evolved. A decade into a new century and our focus is progressing further still, as we search for knowledge about planets outside our own Solar System – extrasolar planets.

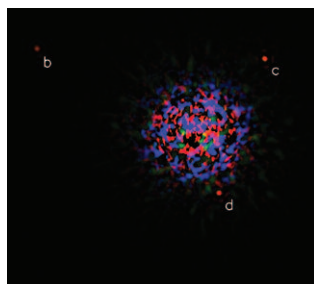
Major progress has been made in this quest since the discovery of a planet orbiting the Sun-like star 51 Pegasi in 1995. Some 400 extrasolar planets have been discovered since then, but while each planet is adding to our knowledge it is also raising new questions. Professor Isabelle Baraffe of the University of Exeter's Astrophysics Group says: "Each discovery raises a new problem for astrophysicists. There is a huge diversity of properties among planets and as someone who studies their internal structure I find this both exciting and challenging. As we learn more about extrasolar planets, we are also being forced to revisit long-held theories about our own Solar System."

The University of Exeter's Astrophysics Group is unique in the UK – and unusual in the world – because it combines expertise in observations and modelling. Head of the Astrophysics Group, Professor Matthew Bate says: "This mix of expertise gives the group a major advantage in studying extrasolar planets: by combining the latest discoveries from ground and space-based observations with theoretical modelling we can better answer questions about the structure, composition and atmospheric conditions of extrasolar planets."

For most of us, the most thrilling question of all is whether we are sharing the Universe with other life forms. Professor Isabelle Baraffe is in no doubt that life is not unique to Earth or to our Solar System. "Life on Earth is based on carbon chemistry and requires the presence of water," she says. "Carbon is everywhere in our Universe and there are so many planetary systems out there. At the moment we are focusing on looking for bio-markers – mainly the presence of carbon and water – as evidence that life could exist on other planets. But of course it's possible that on other planets, life could be based on a different kind of chemistry altogether."

For the Exeter team, another major area of interest is the climate of extrasolar planets. This will be the subject of a major international conference – Exoclimates – held at the University this September. 100 Earth, Solar System and Exoplanet specialists will share their knowledge of climate science and find a new way of working together. The conference will put our own climate into the wider context of the trials

“  
As we learn more about extrasolar planets, we are also being forced to revisit long-held theories about our own Solar System”



University of Exeter astronomer Dr Jenny Patience is part of the team that won the 2009 Newcomb Cleveland Prize of the American Association for the Advancement of Science (AAAS). This international team captured the first-ever image of multiple planets orbiting a star other than our own and published its findings in *Science* in November 2008.

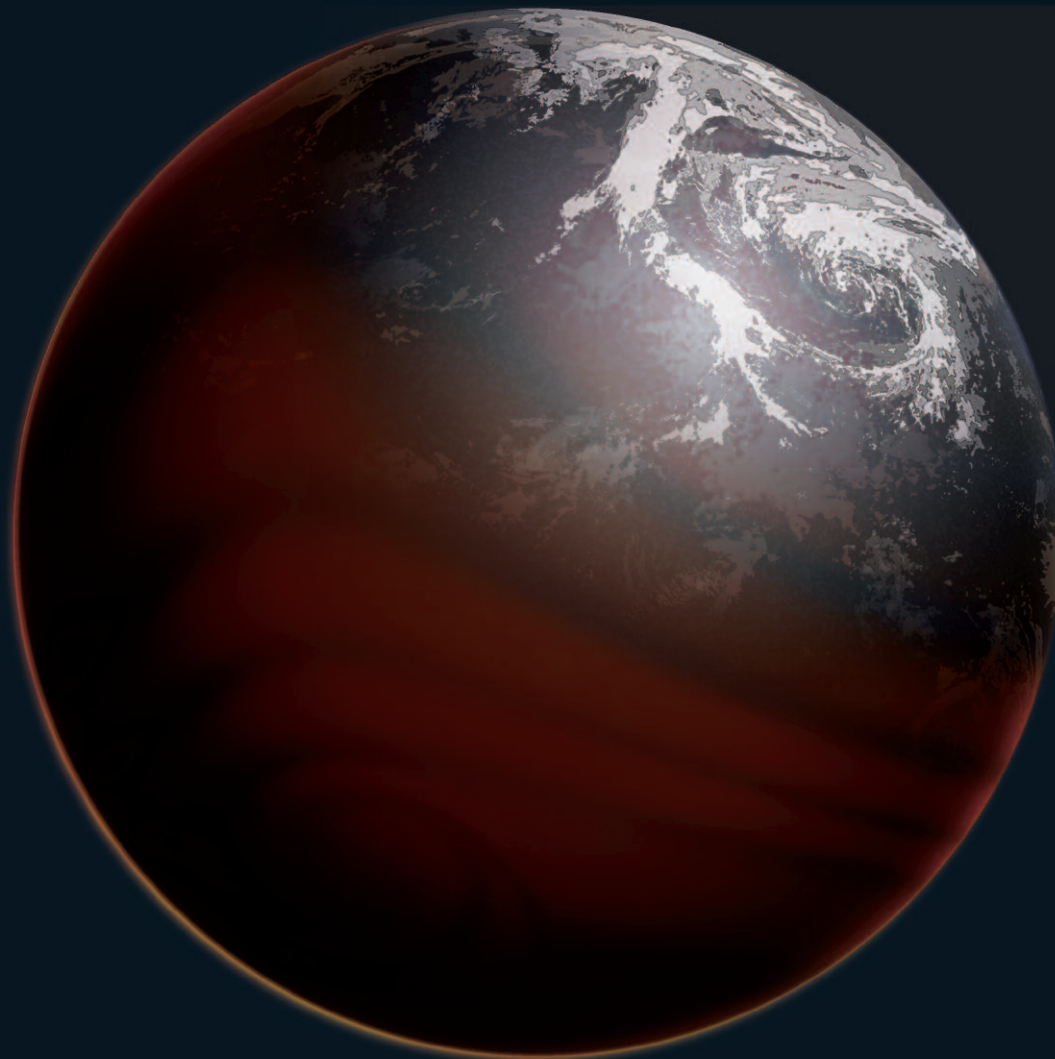


# solar system

and tribulations of planetary atmospheres. The Astrophysics Group is working with University climate scientists and meteorologists from the Met Office (also based in Exeter) to share numerical modelling expertise.

Human-induced climate change has highlighted the complexity of planetary atmospheres. Our neighbours, Venus and Mars provide striking examples of the effects of planetary evolution – runaway greenhouse gasses and the loss of atmosphere to space. Research on exoplanets is now revealing a range of ‘exoatmospheres’ unknown in our Solar

System, from scorching ‘hot jupiters’ to ocean worlds and extreme plate tectonics. By combining its unique mix of modelling and observational expertise, and working with the many climate scientists now in Exeter, the University believes it is well placed to take a lead in this area. Professor Isabelle Baraffe explains: “We want to know if we can do meteorology on other planets. I am sure we could learn a huge amount from our colleagues who are conducting numerical models of the Earth’s climate and I also hope they can learn from the modelling techniques we use as astrophysicists.”



# Writing, nature and place

**In the latest Research Assessment Exercise the University of Exeter's department of English was ranked first in the country for world-leading research.**

Professor Andrew McNeillie was formerly Literature Editor at Oxford University Press, and now is a member of the Exeter Centre for Literatures of Identity, Place and Sustainability (ECLIPSE). This research group on the University's Cornwall Campus looks into literary and cultural representations of identity, place and sustainability. The Centre seeks to ensure that research into environment and sustainability includes social and cultural dimensions. It is home to the UK's only MA in Writing, Nature and Place, which takes literary study out of the classroom and into the outside world.

*Research News* asked Andrew McNeillie to give us some background on this approach:

"The MA in Writing, Nature and Place in Cornwall grew directly out of the literary magazine *Archipelago* and its agenda to provide writing devoted to place and wilderness, with abundant black and white illustration, as for example by the engraver and painter Norman Ackroyd. The magazine's non-fictional prose and verse is aimed at the general reader. Contributors have included Julian Bell, Roger Deakin, Douglas Dunn, Terry Eagleton, Seamus Heaney, Michael Longley, Derek Mahon, Les Murray, Tim Dee, Robert Macfarlane, and David Nash.

"In their broad aspect the interests of the magazine and of the MA may be seen as a response to, and part of, what has been called the New Nature Writing. This refers to a supposed new wave of writing about nature typified by work of Roger Deakin and of Robert Macfarlane, that integrates historical meaning, travel and concern for the planet and

environment. I am interested less in the idea of 'newness' than in the long tradition of this kind of writing, from Gilbert White in the eighteenth century and Henry David Thoreau in the nineteenth century, down to these more contemporary practitioners.

"Our research, and the MA course, not only looks to the world as material place, as topography and community, it also seeks to engage with it artistically, intellectually, commercially, humanly. There is a strong emphasis on visual representation of place, figured as landscape, and otherwise. Being based in Cornwall is utterly appropriate to our work with a wealth of cultural riches on our doorstep and a long association with writers, painters and others who are concerned with landscape and place. This year, as part of our project to take literary study out of the library, we went on a ten-day field trip to the West of Ireland, taking in Galway, Connemara, and researching the culture and nature of landscape on Inis Mór in the Aran Islands (pictured).

"My own research is grounded in the history of writing about place, from earliest chronicling through to the chorographical writings of the English renaissance, and beyond, down to the present, as notably in the work of the writer and cartographer Tim Robinson. My special interest is in the relationship between writing and the natural world, wild or wilderness places, people in them now, and traces of earlier community. I am as interested in the 'human' as in 'nature'.

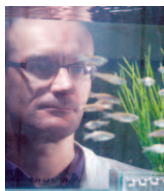
"My own projects include compilation of a 'Book of the Isles'. Future plans include working with the broadcaster, naturalist and ornithologist Tim Dee, on twentieth-century nature writing."

Professor Andrew McNeillie's most recent publications are a memoir *Once* (2009) and *In Mortal Memory* (2010). His English versions of John Milton's Italian sonnets and canzone have this year been accepted by the General Editors of the new Oxford 12-volume edition of Milton.



Professor Andrew McNeillie.  
© Jemimah Kuhfield.

# People



**Name:** Professor Charles Tyler

**Age:** 47

**Job:** Professor in Environmental Biology and Deputy Head of Biosciences.

**Education:**

- BSc in Biological Sciences, Lancaster
- MSc in Applied Fish Biology, Plymouth
  - PhD – Aston
- DSc – Reproductive Physiology and Ecotoxicology, Lancaster

## Interview by email

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

*My major academic achievement has been as a 'player' in establishing endocrine disruption (hormonal disturbances) in wildlife as a consequence of exposure to chemicals discharged by man into the environment. Our findings showing widespread sexual disruption in male fish living in UK rivers demonstrated that harmful effects of chemicals can come about from subtle alterations to the physiology of organisms (including in humans). This work has contributed significantly to a heightened awareness in society about the use and disposal of these gender bending chemicals and led to major international programmes to help protect the environment. I am also so proud of the graduation of all my PhD students.*

**What excites you about your research?**

*I am driven by helping build a better understanding of man's chemical impact on the environment. I support a team that generates high quality data that has been used with confidence by government bodies and regulators to assess the hazards and risks posed by chemicals and particles that we use in our every day lives and that we dispose of into the environment. I actively involve industry in this work, as I feel this is the only way to make significant progress in improving environmental quality standards is with the engagement of all the relevant stakeholders.*

**What do you hope to achieve at Exeter?**

*I would like to see the University continue in the current vein of success. I am very keen to be a part of the continued growth and success of the School of Biosciences too. With the advent of a new state-of-the-art aquarium, I am most keen for Ecotoxicology to continue to grow as a beacon in research at Exeter.*

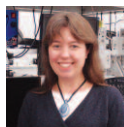
**If you had not been an academic, what would you have been?**

*My genetic blueprint encodes a biologist. By the age of six, I was boiling pellets regurgitated by owls on my mother's kitchen stove to dissect out what they had been eating. I am also a fanatic wildlifer and wildlife photographer.*



**Dr Ceri Lewis**, NERC Research Fellow in Biosciences, has joined Polar explorer Pen Hadow's Catlin Arctic Survey to investigate climate change and the affects of carbon dioxide on the Arctic Ocean.

**Professor Jeremy Black**, History, has recently completed his 100th book, due for publication later this year.



Physicist **Dr Sharon Jewell** is one of 38 UK scientists to be made a Royal Society University Research Fellow.

**Professor Isabelle Baraffe**, a new Chair appointment in the area of Extrasolar Planets (see pg 6) has been awarded a Royal Society Wolfson Merit Award.



**Irene Ng**, Professor of Marketing Science at the Business School has been awarded a Placement Fellowship with Cambridge University Hospitals NHS Foundation Trust.

**Liz Trinder** has joined the Law School as a new Professor of Socio-Legal Studies. Her areas of interest are in family law and policy and empirical socio-legal research.



**Professor Peter Cox**, Mathematics, was one of 26 researchers from around the world who prepared 'The Copenhagen Diagnosis: Updating the world on the latest climate science' for last year's major conference.

**Professor Willem Kuyken**, from Psychology, was a member of the panel that drew up new National Institute for Health and Clinical Excellence (NICE) guidelines on the treatment and management of depression in adults.



Geographer **Dr Stephan Harrison**, who is based on the Cornwall Campus, has advised the Indian Government on the links between climate change and national security.

**Professors Gareth Stansfield** and **Tim Dunne**, from the School of Humanities and Social Sciences, were among academic experts asked to provide a briefing to the Government's Iraq Inquiry.



**Professor Robert Sneyd**, at the Peninsula College of Medicine and Dentistry, has been made a Senior Fellow of the Higher Education Academy. Last year only 12 people were made Senior Fellows.

**Professor Elizabeth Kay**, Dean of the Peninsula Dental School and Acting Dean of the Peninsula College of Medicine and Dentistry, has been awarded Fellowship Ad Eundem of the Faculty of General Dental Practice (UK) (FGDP(UK)) at The Royal College of Surgeons of England.



**Dr Michael Cant** (Biosciences, Cornwall Campus) has helped the BBC to film a documentary series which follows a family of banded mongoose at his study site in Uganda.

The Norwegian Society of Pharmacology and Toxicology presented its Medal of Honour to **Professor Michael Depledge** from the Peninsula College of Medicine and Dentistry.



# Research Briefs

The brilliance of butterfly wings has inspired a £3.2 million, three-year research and exploitation project that promises to deliver innovation in the fields of security, energy and the environment. The University of Exeter and international technology company **QinetiQ** are collaborating in the development of new technologies based on world leading physical sciences research carried out within the University. External funding comes from the Engineering Physical Sciences Research Council (EPSRC).

An alliance of 16 South West health organisations, including the Universities of Exeter and Plymouth and the Peninsula College of Medicine and Dentistry has formed the 'Health Innovation and Education Cluster South West' (HIEC SW) partnership, funded by the Department of Health. Together, the group will ensure effective and timely implementation of new developments in health. One of 17 clusters, HIEC SW will share £11 million of funding in the first year.

The Centre for Water Systems is celebrating three new European Commission grants totaling €1.9 million. **Professor Slobodan Djordjevic** is leading a 14 partner collaborative research project on flood resilience in urban areas. **Professor Dragan Savic** is a partner in projects looking at water availability and security in southern Europe and the challenges in water supply and sanitation brought about by climate change.

**Craig Williams**, Associate Professor in the School of Sport and Health Sciences, is leading research into energy balance; the relationship between energy intake and expenditure in young people. This collaborative project

receives £53,820 from Kellogg's and unites the University of Exeter's Children's Health and Exercise Research Centre and the Faculty of Health and Social Work, University of Plymouth. The team will examine the dietary and activity habits in primary and secondary school aged children in the Exeter and Plymouth areas.

A €1 million International Science Education development project is being launched by the University of Exeter's Graduate School of Education. The project seeks to improve the quality of science education in Europe by collaborating with other countries where science and science careers are perceived by young people as a positive option.

The Natural Environment Research Council has awarded £247,653 to support research by **Professor Charles Tyler** at the School of Biosciences into the exposure of fish to oestrogenic wastewater treatment works effluents.

**Professor John Coggan** and colleagues in the Camborne School of Mines are participating in a project to develop new methods for the environmental impact monitoring of mining operations. This receives €346,792 from the European Commission Frameworks programme 7 funds.

A cross disciplinary project led by **Professor David Butler** from Engineering Mathematics and Physical Sciences has won £490K of EPSRC funding under the Bridging the Gaps call. The Exeter Science Exchange aims to promote interaction and foster creativity, and will establish new cross-institutional partnerships, promote greater communication between disciplines, help groups

to focus on impact and link research to policy.

The University's Special Collections, English department and Research Knowledge Transfer office are partners in a group bid with other South West arts organisations to obtain funding for the 'Wordquest Devon' project. This project aims to create a literary map of Devon, with podcasts and associated literary events. These are part of the 2012 Cultural Olympiad. The Arts Council has awarded £50,000 and the Heritage Lottery Fund £42,500.

Just over €1 million has been awarded from European Commission Framework programme 7 funding to **Professor Pete Mumby** in Biosciences. His latest coral reefs project focuses on an ecosystem approach to managing Caribbean reefs in the face of climate change.

The Arts and Humanities Research Council has awarded £346,967 to **Malcolm Cook**, Emeritus Professor of Eighteenth-Century French Studies to bring the Bernardin de Saint-Pierre correspondence project to completion – the first ever complete critical edition of the correspondence of the author, comprising over 2,600 letters. Also in the French department, **Professor James Kearns** is principal investigator on a three-year £278,539 AHRC-funded research project on the history of the Paris Fine Art Salon during the July Monarchy and Second Republic.

A five year project led by **Dr Giovanna Colombetti** will look at the philosophy of cognitive science, in particular the relationship between cognition

and emotion. She receives €685,301 from the European Research Council (FP7).

**Professor Debra Myhill** from the Graduate School of Education has been awarded £41,792 by the Arts Council England to lead the organisation of a Children's Literature Festival in November 2010 which will celebrate writing for children and writing by children.

**Professors Anne Barlow** and **Liz Trinder** from the School of Law secured venture funding from the Economic and Social Research Council (ESRC), AHRC, the Nuffield Foundation and the Family Bar Association to hold an international agenda-setting workshop on 'Family, Regulation and Society'. This launched a new network that aims to produce high quality research and pool expertise in areas such as child protection, family justice issues, cohabitation and the effects of separation and divorce on children. The Network is being led by the University of Exeter in collaboration with the Universities of Bath, Bristol and Cardiff and will also include contributions from three leading third sector organisations.

**Dr Jane Milling** in Drama has been awarded £28,220 from the AHRC for a project reactivating the pierrot show on the beaches and promenades of The English Riviera and South West resorts. The rise of the pierrot troupe or concert party coincided with the rise and heyday of the British seaside resorts from the late 1890s, and shared their decline in the 1950s. A series of workshops, performances, and a travelling exhibition, alongside historical research will assess how audiences might understand and value such performance today.