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# A WORD FROM THE VICE-CHANCELLOR

As the new Vice-Chancellor of Bangor University it is my pleasure to present our Annual Report for the 2009-10 academic year.

During the period covered by this report, the University was led by Professor Merfyn Jones as Vice-Chancellor and following his retirement by Professor Fergus Lowe as Acting Vice-Chancellor, and I would like to thank them both, as well as the Acting Deputy Vice-Chancellor Dr David Roberts, for their valuable contribution during the year which has ensured that Bangor is well placed to face a challenging future with confidence.

As a result of the economic situation, universities throughout the UK have faced a great deal of uncertainty. However there have been significant achievements at Bangor which have contributed to a sound foundation for next year. Student recruitment, both in the UK and overseas has been strong, there are promising developments in research, and tremendous progress has been made with the Pontio project which will transform the University and the wider region. Many others are outlined in this report.

Since I took up my post, I have been pleased to see great enthusiasm and loyalty to the University, and I am proud to have been appointed only the seventh Vice-Chancellor in our 126-year history. There are major strengths and opportunities here of which we can all be proud.

Financial stability of course is a crucial component of achieving academic success, and in turn meeting the demands of our students. Bangor has an excellent

reputation for looking after its students, and it is vitally important that this continues.

With the likely introduction of higher fees, universities must be more attentive to the quality of the student experience at all levels. Working closely with industry, improving research performance and internationalisation are crucial for our students' future as well as the University's continued success.

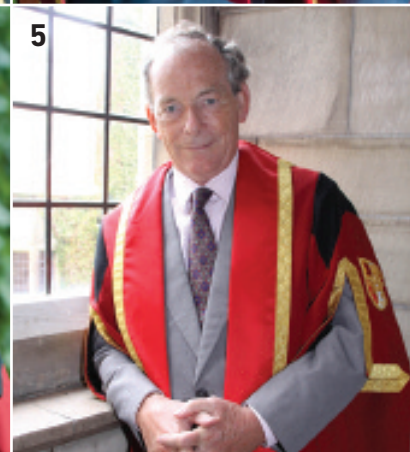
I look forward to working with all of you to ensure that Bangor University continues to make a major contribution to the region, to Wales and to society at large.

**Professor John G. Hughes**  
Vice-Chancellor



A handwritten signature in white ink that reads "John Hughes". The signature is stylized, with a large, sweeping initial 'J'.





**1** Mike Peters, front man of rock band, The Alarm, was among the individuals awarded Honorary Fellowships for their distinguished contributions in various roles.

Also honoured were **2** Welsh author Jane Edwards, **3** the scientist and businessman, Sir Christopher Evans, **4** Denbighshire local historian, Robert Morris Owen, **5** the journalist and author, Sir Simon Jenkins, **6** former Vice-Chancellor of the University of Wales, Lampeter, Professor Keith Robbins, and **7** High Court Judge, Mr Justice Roderick Evans.



# HIGHLIGHTS 09/10

Bangor University became the first UK university to lead a twinning partnership under UNESCO's UNITWIN Network. Under the Network, academics at the **School of Ocean Sciences** are sharing their expertise in sustainability and marine sciences with marine scientists and academics at the Institute of Marine Sciences, Zanzibar, part of the University of Dar es Salaam, in Tanzania, east Africa.

Bangor student Catrin Haf Jones won the Crown in the Urdd National Eisteddfod. This is the second year in succession for a student following the MA in Creative Writing in the **School of Welsh** to win the Crown, the main prize for writing creative prose - the prize was won last year by Lleucu Hughes who is currently working for the weekly newspaper Y Cymro.

Student Manon Wyn Williams won the Drama Medal - for the second time. She is also studying an MA in Creative Writing at the **School of Welsh**. She won the award in 2007, and also won the prestigious Bryn Terfel Scholarship as an actress the same year.

A new book tracing the fascinating history of Bangor University marked the University's 125th Anniversary. Written by **Dr David Roberts**, University Registrar, the book traces the University's rise from modest beginnings in October 1884 as the 'University College of North Wales', with just 58 students in the Penrhyn Arms, to an independent university with degree-awarding powers and 12,000 students and staff.

Bangor University achieved a First Class degree in the People & Planet's Green League 2010, which ranks all 133 UK universities according to their environmental performance. This is due to team work to understand and address environmental issues throughout the University, ranging from the energy and water used, the wastes produced and the way staff travel, to the protection of our environmental assets and the goods and services we procure.

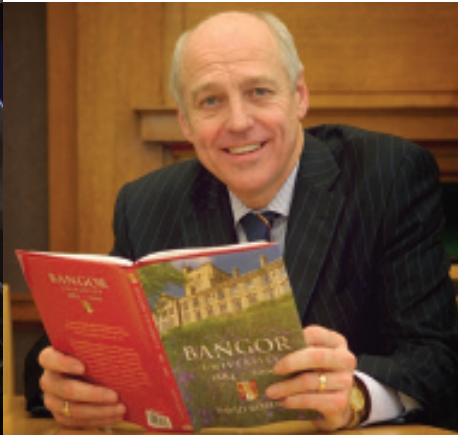
The University has improved its environmental performance by developing an Environmental Management System (EMS), describing all the University's environmental impacts, and how it plans to achieve continual environmental improvement.

The PILSen: Practice Interventions for Language Sensitivity: a Pilot Study to Inform the Delivery of Pharmaceutical Services in Wales won a Welsh Language in Healthcare Award for 'Innovative practice in primary care which responds to patients' needs for service'. PILSen is a partnership between the NHS and LLAIS, the language awareness research group of the Centre for Health-Related Research, the ESRC Centre for Research on Bilingualism in Theory and Practice, the North Wales Organisation for Randomised Trials in Health and CEPH, the University's health economics group.

Andrew Smith, Fine Art Academic Co-ordinator at the **College of Education & Lifelong Learning** won a public art commission to produce artwork for Cardiff's Splott Road Railway Bridge, following a public consultation which received 150 responses. The community chose 'Constellation' from two artworks produced after working with local groups and schools. It covers the two sides of the bridge creating a dynamic and colourful public art statement.

Work began in October to make a hidden and precious treasure of medieval Bangor universally accessible on-line. Owned by Bangor Cathedral, the **Bangor Pontifical** is a unique, decorated, hand-written book dating from the 14th century.

Reef biodiversity off the east African coast.



Catrin Haf Jones, winner of the Urdd Eisteddfod Crown.

Manon Wyn Williams, winner of the Drama Medal at the Urdd Eisteddfod.

Dr David Roberts and his book.



**1** Wolverhampton Food Dudes project manager, Charlotte Cameron, with local children (and Gold Medal) at St. Paul's Primary School Wolverhampton.

**2** The first Santander Scholars arrived in Bangor in 2001/02. Here, postgraduate students Maialen Herrero, Fernando Pinillos, Alejandro González and Eduardo De Valle are being welcomed by branch manager, Veselina Vasileva.

**3** Sculptor John Meirion Morris and Mrs Eleri Jones widow of the late Professor Bedwyr Lewis Jones with the recently unveiled bust.



## HIGHLIGHTS 09/10

Three **School of Creative Studies and Media** students experienced the buzz of election night at close range while working for the BBC on the night, gaining invaluable first hand experience of news gathering. Second year student Kelvin Jones was updating the BBC from the count at Dolgellau, while Illtud Deiniol reported from Pontypridd and Dewi Jones from Llandrindod.

The Food Dudes healthy eating programme was awarded the top gold medal award at the Chief Medical Officer's Public Health Awards. The award ceremony held at the Royal College of Physicians, acknowledges the efforts of all those working to improve the health of the nation and celebrates innovative and successful public health initiatives.

The Award was for a particular Food Dudes project promoted by Wolverhampton Primary Care Trust, as part of their strategy to tackle the higher than average level of childhood obesity in the region.

A bust of the late Professor Bedwyr Lewis Jones, one of Bangor University's foremost past Professors, was unveiled in May. Bedwyr Lewis Jones was Professor of Welsh at Bangor from 1974 until his death in 1992 and a lecturer at the University since 1959. He was renowned as a scholar and literary critic, as an unparalleled broadcaster and as an individual who inspired an interest in Welsh language and literature. The commission by the University followed a successful appeal among his friends and acquaintances, and represents the first new bust to be commissioned by the University in half a century.

The University's partnership with Santander has included the opening of a brand new branch of Santander bank on the University campus and the announcement of five Santander Scholarships for post-graduate students from Latin America, Spain and Portugal applying to study at Bangor.





1



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4

H.R.H Queen Elizabeth and Prince Philip visited Bangor University during their tour of north and mid Wales. They visited the **Management Centre** for a reception and lunch and viewed the recently developed facilities.

A new skills Centre, set to benefit both employers and learners in the region, was launched in October by the **Aberystwyth and Bangor Universities Partnership**. The virtual centre will build on the high-quality training already available ensuring that skills training is flexible and matches the requirements of employers.

Professor Merfyn Jones announced his retirement as Vice-Chancellor in December. Professor Jones became the sixth Vice-Chancellor in the University's history in 2004 having also been acting Vice-Chancellor in 2003.

Professor Jones has since been appointed as a specialist policy adviser on higher education to the Welsh Assembly Government.

In June Bangor University's Council announced the appointment of Professor John G. Hughes as Vice-Chancellor. He took up his post in the autumn.

Prior to the appointment, Professor Hughes was President of the National University of Ireland, Maynooth. A mathematician and theoretical physicist by academic background, he became Professor of Information Systems Engineering, and later Dean and then Pro Vice-Chancellor (Research) at the University of Ulster from 1991 to 2004.

Professor Judy Hutchings, Director of the Incredible Years Wales Centre was awarded the Inspire Wales Educator Award presented by the Western Mail and the Institute of Welsh Affairs. Professor Hutchings was among 70 individuals nominated for the award for her work to bring effective services to children in Wales who are at risk of anti-social behaviour through the Incredible Years Cymru Centre at the **School of Psychology**.

1 Professor John G. Hughes became Bangor University's seventh Vice-Chancellor.

2 John Griffiths AM, then Deputy Minister for Skills, speaking at the launch of the Aber-Bangor Skills Centre.

3 Professor Judy Hutchings with Jane Davidson AM and Professor David Egan who was one of the judges for the class.

4 HRH the Queen visits the Management Centre.



# TEACHING & LEARNING

## E-LEARNING TO ADDRESS OUR WOUNDS

An innovative e-learning course developed at the **School of Healthcare Sciences** is assisting trained nurses and wound-care specialist nurses across Wales to achieve Wales' unique national standards of competence for wound care.

There are few nurses who do not come into contact with individuals with wounds, and tissue viability is a vital area of clinical importance. This is demonstrated by the mix of students currently studying this new wound e-course. They include district nurses from around Wales, staff from various departments within Welsh hospitals and NHS direct and the private healthcare sector. They are following the

course either as part of their continuing professional development or as they gain a degree while at work.

This is an exciting development by the School of Healthcare Sciences together with **IT & Computing Services** which will lead the way for further e-learning opportunities at the School.

The course module sits within the BSc modular framework providing 20 credits at HE level 6. It provides students with the educational experience that will allow them to understand and manage individuals with complex wounds.

Web-based learning provides a virtual classroom environment which facilitates study away from the University, and is particularly suitable for students wishing to learn at flexible times, and for students in rural areas. The e-learning environment delivers academic activities and learning in combination with the electronic library services. It also provides colour visual images to enhance student understanding of wound presentation and management.

The individual student can access tutorial support through the discussion board within the module's shared e-learning environment. The course has interactive assessments which include an on-line discussion.





## 'ENTERPRISE BY DESIGN': A PITCH FOR INNOVATION

The introduction of an 'Enterprise' module for students is planned for 2011/12 as part of the Pontio project, following a successful pilot scheme.

In the pilot, 48 students were introduced to entrepreneurship through 'Design Thinking', an holistic approach to innovating new products and services.

Led by 'Academic Champions of Enterprise' and working with the **Careers & Employability Service**, they were asked to consider a design challenge from the perspective of their own discipline, then balance competing views by working together creatively within multidisciplinary teams.

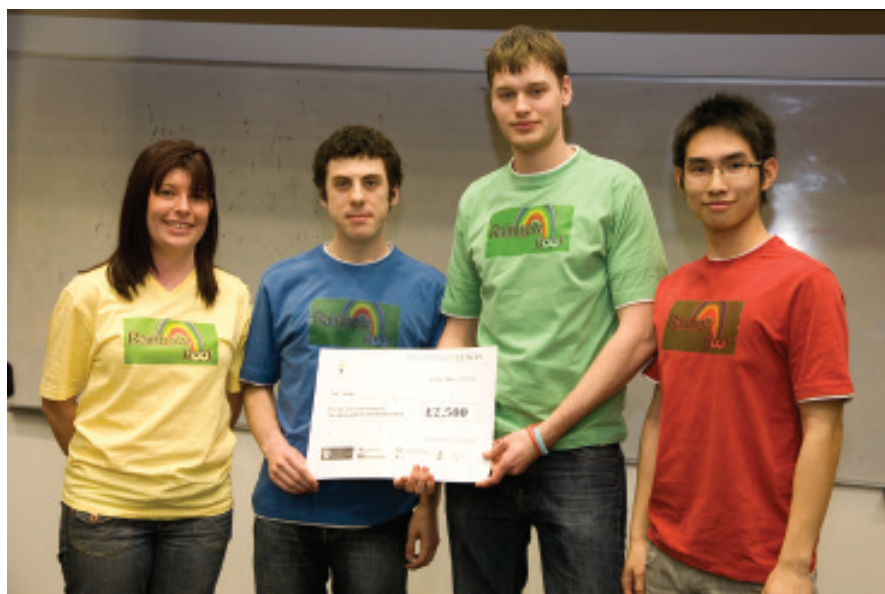
Inspired and informed by invited business people and experts, creative activities addressed functional and aesthetic value, sustainable materials, marketing and financial planning.

The challenge set was to design a new product for outdoor leisure, and 'pitch' their product to an expert panel at the end of the six week intensive course.

The winners, 'Team Geranium' developed a multi-functional bag that transforms into a camping mat. They received the first prize of £2,500.

"Anyone attending the final presentations could not fail to be impressed by the hard work put in by all the teams competing. It really demonstrated the creative and entrepreneurial flair of Bangor's students and showed that they are a talented bunch," said Dr Ian Barwick, of Bangor University's Research and Innovation Office.

The next step is to provide an extended course, followed by the first optional module for as many as 600 students.



The winning 'Team Geranium': Product Design student, Elinor Owen; Psychology student, Philip Sinfield; Electronic Engineering student Andrew Clayton, and Business student, Junda Zeng.



## DANCING THEIR WAY TO FLUENCY

You might not expect to be salsa dancing your way to fluent Welsh, but that's been the experience of Welsh speakers and learners in the Mold area. Salsa nights, quizzes and theatre trips are just some of the activities Welsh Language Social Group C3 have undertaken to take language learning out of the classroom.

The initiative won a European Award for Languages, co-ordinated by CILT, the National Centre for Languages, which recognises innovation in language learning. The idea is to team new Welsh speakers with native speakers of the language to really help them to develop their skills and understanding outside the classroom itself.

According to the Award adjudicators: "C3 is an excellent and vibrant initiative which has created a win-win situation: learners gain in confidence and fluency; a real community spirit has evolved locally, and the Welsh language itself is benefiting."

The group is committed to creating links with other societies and social groups, and are always looking for new opportunities to communicate with the local Welsh-speaking community.

The group is co-ordinated by Eirian Conlon, Tutor-Organiser for Welsh for Adults in the area for Bangor University, aided by Pauline Owen, a tutor and former-learner. "We are delighted to receive this award, which is a testimony to the enthusiasm and support of many sociable people - adult learners and tutors from Lifelong Learning at Bangor University, former students, members of cultural societies and the Welsh-speaking community in North East Wales. It is an honour to represent Welsh for Adults!" said Eirian.

Bangor University leads a partnership responsible for providing Welsh language for adults courses across north Wales through its **Welsh for Adults Unit**.



## TEACHING & LEARNING

### SUPERCHARGING WALES' KNOWLEDGE ECONOMY

Over 400 Welsh companies and students will be involved in commercially focussed, collaborative research projects over the next five years, thanks to a £33 million programme developed and led by Bangor University on behalf of all universities in Wales.

Unveiled by the Welsh Assembly Government at Bangor University, the Knowledge Economy Skills Scholarships (KESS) programme will provide over 400 PhD and Masters places over the next five years. This ground-breaking approach to postgraduate research builds on ideas developed through an Objective 1 European funded programme and promises to provide a vital boost to the research and development skills of the graduates and businesses of Wales; skills that are so essential to a successful knowledge economy.

Each scholarship comes with an annual bursary of up to £13,300 and provides high-

level research, innovation and business training tailored to each individual.

The programme focuses on projects which address the needs of the Welsh Assembly Government's priority sectors, namely: the digital and low carbon economy, health and bioscience as well as advanced engineering and manufacturing sectors. KESS is backed with £21 million from the Convergence European Social Fund (ESF) through the Welsh Assembly Government with further funding from Higher Education Institutions and the private sector.

KESS is significantly increasing Bangor's postgraduate research profile, providing a new approach to skills based development for postgraduate students and offering employers an opportunity to directly influence graduate employability whilst adding critical research and development skills to their organisation.





## INSTANT FEEDBACK

The traditional lecture and seminar are no longer the only tools at the lecturer's disposal. In the 'multi-platform' age, the lecturer now has a range of techniques and tools at their disposal to engage students in learning.

Providing 'blended learning' is the aim - incorporating a range of approaches and technologies to ensure that students get the best from their learning opportunities, and using the most appropriate medium for conveying different types of information and engaging students in learning. With nearly all centrally timetabled rooms equipped with audio-visual technology, academics are able to include a range of audio-visual applications in their teaching.

### **The case for Personal Response Systems - "Clickers"**

It can be difficult to gauge how well students are understanding key concepts, during the course of a module, especially in larger groups.

Personal Response Systems, sometimes known as 'Clickers', are one tool being used at Bangor, and one which a number of lecturers have found to be particularly useful in providing an indication of how well students have understood something that has just been explained. Students hold clickers during a lecture and use them to respond instantly to questions set by the lecturer during the lecture. This provides instant feedback, which is displayed on screen in the lecture room or privately to the lecturer. This can be used to show how well a group has grasped a complex concept, for example. If the responses cross the range of answer options, it gives an instant opportunity to review or re-explain complex subjects. It is particularly effective in large teaching groups.

**Psychology** students have appreciated their introduction, saying that the clickers were: 'very useful, really helped me understand better', 'An excellent way to keep everyone's attention', and 'useful way to see what you've learnt.'





# RESEARCH

## WHY FLOWERING PLANTS IN THE ANTARCTIC HAVE WARMED TO CLIMATE CHANGE

We think of the Antarctic as a land of snow and ice. But, in summer on the Antarctic Peninsula, and the islands surrounding the frozen centre of the continent, the snow melts and many areas become green with mosses and two species of native flowering plant. Recently, as global temperatures increase, and Antarctic summers have become longer and warmer, one of these flowering plants, Antarctic Hairgrass (*Deschampsia antarctica*), has become increasingly widespread.

Now, a team of UK and Australian scientists led by Professor Davey Jones of the School of the Environment, Natural Resources and Geography may have discovered the secret to the success of this plant. The team has carried out research funded by the Natural Environment Research Council at the British Antarctic Survey base on Signy Island in the Southern Orkneys.

Most of the nitrogen of the Maritime Antarctic is locked in organic matter, which

has been slow to decompose in the cold conditions, but is now becoming more available as temperatures increase. Professor Jones' team has made the discovery that Antarctic Hairgrass can use its roots to access this nitrogen much more efficiently than plants were previously thought able. Consequently, in the struggle to find the nutrients needed to exploit the sunlight of the brief Antarctic summer, this grass has a key advantage over the mosses with which it competes for resources.





## IMPROVING THE HEALTH AND WELL BEING OF THE PEOPLE OF WALES AND BEYOND

Bangor's **North Wales Organisation for Randomised Trials in Health (NWORDH)** was one of an initial cohort of only 17 clinical trials units across the UK to be approved with full accreditation in 2007 by the UK Clinical Research Collaboration (UKCRC). Following three years of success, NWORDH's importance to the ongoing improvement of health and social care in Wales and beyond has been recognised by the award from the Welsh Assembly Government of a further five years of funding worth over £3.3 million.

NWORDH is one of three research centres that make up the **Institute of Medical and Social Care Research (IMSCaR)** at Bangor University and its researchers use clinical trials to provide a rational approach to the use of public funds by identifying evidence-based and cost-effective health and social care practices. Working in close collaboration with IMSCaR's **Centre for Economics and Policy in Health and Dementia Services Development Centre**, the clinical

trials unit works closely with partners throughout Wales and the UK. A significant relationship which part of the new funding is specifically intended to provide is a Support Service to NHS researchers across North Wales, including the new Betsi Cadwaladr University Health Board.

Collaborative research in clinical fields such as cancer, epilepsy, childhood conditions, mental health and dementia are currently being explored and developed by the three centres of IMSCaR and, ultimately, this will lead to improved services for people with such long-term conditions. Recent projects have included research into the role of Endoscopic UltraSound (EUS) in the staging and subsequent management of patients with gastric and oesophageal cancer, and an evaluation of the effectiveness and cost-effectiveness of improving ventilation in heating in the homes of children with moderate or severe asthma who live in Wrexham.

*"Developing cost-effective interventions in health and social care is essential for the best use of scarce resources. The Bangor Trials Unit is making a major contribution to this vital work, with the support of Bangor University, Betsi Cadwaladr University Health Board and the Welsh Assembly."*

**Prof Bob Woods Acting Director, IMSCaR.**

## 400<sup>TH</sup> ANNIVERSARY OF RADICAL REVOLUTIONARY MARKED

Late in 2009, Oxford University Press marked the 400th anniversary of the birth of Gerrard Winstanley, (1609-76), the foremost radical social thinker and activist of the English Revolution, by publishing the first complete edition of his works. The two massive volumes of 'The Complete works of Gerrard Winstanley' were edited by Professor Thomas Corns, Professor of English at the University's **School of English**, Ann Hughes (Keele) and David Loewenstein (University of Wisconsin, Madison).

The editorial team combined the expertise

of acclaimed prize-winning literary scholars (Corns' Blackwell Companion to Milton, was winner of the Irene Samuel Prize of the Milton Society of America), and a leading historian of seventeenth-century England. Professor Corns took particular responsibility for the text and publishing history, and for the theological and linguistic aspects of the commentary.

The edition sets a new standard in the presentation of controversial prose of the period of the English Civil War. Its substantial introduction establishes Winstanley's distinctive contributions to

political thought and radical religion and illuminates his literary achievements, while the annotation elucidates the wealth of his biblical allusion and his engagement with the politics of his day. The work ensures Winstanley's standing as one of the most significant prose writers and radical thinkers of early modern England.

Writing in the TLS (2/7/10), Michael Braddick acclaimed the edition in glowing terms: 'Underpinned as they are by formidable learning, these volumes will become the standard edition.'

## BANKING DEFINED

The banking crisis and its aftermath have received almost daily attention in the international print and broadcast media since 2007. The publication in 2009 of the first edition of *The Oxford Handbook of Banking* has therefore provided a timely and authoritative source of information for anyone interested in banking and its study. This hefty volume encompasses a comprehensive examination and analysis of the role of banks in the economy and some of the most important issues in banking by over 60 leading contributors, representing world authorities among banking and academic institutions.

The book was conceived and edited by Phil Molyneux, Professor of Banking & Finance at Bangor's **Business School**, along with former Bangor postgraduate, John O.S. Williams, now Professor of Banking at St Andrews and Allen N Berger of the University of South Carolina. Its 36 chapters provide a definitive explanation of

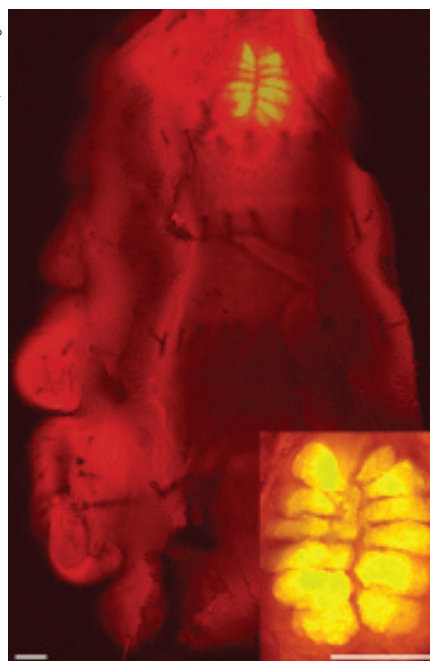
the role of banks in the economy. Professor Molyneux's expertise and international reputation among banking scholars and researchers were central in enabling him and his editorial team to compile this definitive and comprehensive text, and attract contributions from the leading experts from institutions such as Columbia University in the US, the World Bank, IMF and the European Central Bank.

Professor Raghuram G Rajan of the University of Chicago Booth Business School and former Chief Economist of the International Monetary Fund described the book as a veritable tour de force, saying that the book is: "an accessible, comprehensive and state-of-the-art treatment of the subject. It is a must-read for students and researchers alike, as well as anyone interested in understanding the origins of the financial crisis of 2007-2009."



## CLINICALLY OBSOLETE ANTIBIOTICS COULD BE USED TO TREAT HEAD AND BODY LICE

M.A. Perotti, H.R. Braig



Confocal fluorescent image of a human head louse nymph (red). The yellow shows the chambers containing the bacteria without which human lice cannot survive.

New simple and effective treatments for body and head lice infestations could be developed using clinically 'obsolete' antibiotics. This news follows the completion of genetic sequencing of our oldest and closest human 'neighbour', the human body louse (*Pediculus humanus humanus* L.). The research paper describing the sequencing appeared in the American on-line peer-reviewed journal, *Proceedings of the National Academy of Sciences*.

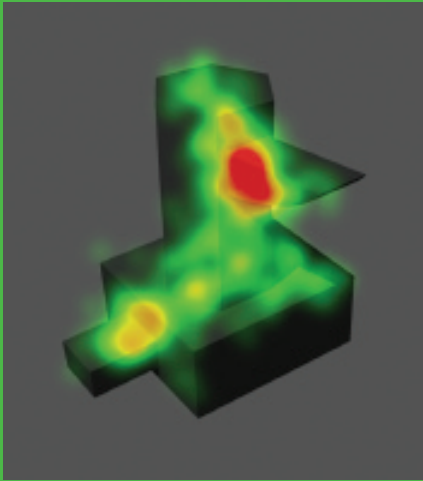
The body louse transmits endemic typhus, relapsing fever and trench fever as well as leaving the host, if not infected with a more serious disease, feeling 'lousy'. Head lice can, as with body lice, lead to unexpected conditions such as cervical lymphadenopathy or corneal epithelial keratitis. They are also increasingly resistant to insecticidal treatments. This is leading to endemic infestations,

particularly among the young in the west and even more so in developing countries.

Parasitologists at Bangor's **School of Biological Sciences** and Reading University were responsible for sequencing a bacterium (*Candidatus Riesa pediculi*) that lives within the louse, and is essential to its survival. They worked alongside over 25 other institutions in the international genetic sequencing project.

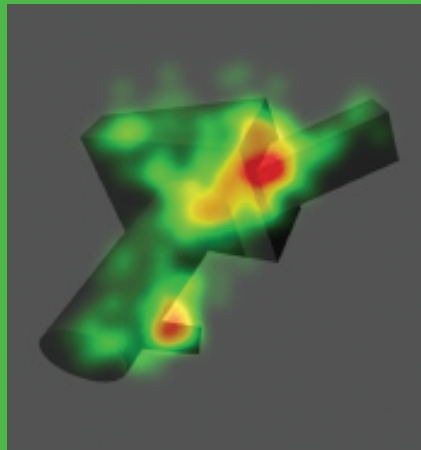
The parasitologists also established that these bacteria have no immunity to antibiotics due to their isolation within the body of the lice. For this reason, they represent a new target for the development of novel anti-lice agents especially for cases where classical treatment fails. The scientists suggest adopting antibiotics which are clinically ineffective for any other treatments, to treat both head and body lice.





The distributions of human eye movement patterns during 3D object recognition.

## RESEARCH



### REVERSE ENGINEERING THE HUMAN BRAIN: BUILDING MACHINE VISION SYSTEMS THAT SEE LIKE HUMANS

The ability to create artificial vision systems as complex as our own human vision has challenged robotics experts for decades. Artificial vision systems able to recognise objects and function beyond a stable, controlled, environment would have a range of applications.

An innovative cross-disciplinary approach by scientists at the **School of Psychology and Computer Sciences** received nearly £550,000 in funding from two of the UK's main funding bodies, the Economic and Social Research Council and the Engineering and Physical Sciences Research Councils.

The research is indicative of the type of multi-disciplinary work that will drive forward the knowledge economy. Dissolving traditional boundaries will bring a fresh combination of approaches to bear on defining exactly how the vision system recognises three dimensional objects.

"The visual system is highly complex and science can only hope to solve it piecemeal," explains Dr Charles Leek from School of Psychology.

"A seemingly simple task such as recognising, reaching for and grasping an object is a massive task to recreate artificially,"

"We're particularly interested in identifying what makes particular features of these objects key to their recognition in our visual system. If we can establish the 'check-list' that is being carried out in identifying objects, then we can perhaps recreate the process in artificial vision."

Working together, the project aims to 'reverse engineer'; to work out the highly complex neural processes involved in simple tasks such as recognising objects, despite changes such as changing position, light and shadow.

"Our input literally involves translating data from one discipline into the language of another. We will be in converting the data being collected in the psychologists' vision laboratories into computational models that will underpin the development of more complex artificial visual systems," explains Dr Ik Soo Lim of the School of Computer Sciences.

# COMMUNITY



## IMPROVING THE STANDARDS OF ELITE COACHING IN WELSH SPORT

For the past year, members of the Institute for Psychology of Elite Performance (IPEP), housed within the **School of Sport, Health and Exercise Sciences**, have been developing and running an innovative project to improve the quality of elite coaching within Welsh sport.

Dr Nichola Callow, Dr Ross Roberts and PhD student Rosie Poynor are currently in partnership with the Sports Council for Wales investigating the practices of elite Welsh coaches in relation to their understanding and use of psychological skills.

The research involves designing and delivering coach mentorship programmes which are tailored to meet coaches'

individual needs regarding the application of psychological skills with their athletes. The project is currently being carried out with coaches based in North Wales who coach potential and current elite athletes across a range of Commonwealth and Olympic sports including; athletics, ice-skating, Para Olympic dressage, canoe slalom and weightlifting.

Psychological skills such as goal setting and imagery can help improve the quality of athletic performance. However, to be effective, these skills need to be practiced and well learned. Coaches are becoming increasingly knowledgeable regarding the application of sport psychology principles within their coaching, however, a lack of confidence and practical experience of

teaching psychological skills can reduce the extent to which coaches promote the use of psychological skills with their athletes.

The current programme therefore aims to provide coaches with the knowledge, practical experience and confidence to integrate the teaching of psychological skills into their coaching. Coach education in a one-on-one mentoring programme such as this one aims to support and empower coaches in their professional development. This transfer of expertise and knowledge from sport psychology researchers and practitioners to coaches is designed to improve the quality of coaching in North Wales and ultimately, the performance of Welsh sportsmen and women.



## LOVE BANGOR

In 2009, Bangor **Students' Union** launched their 'Love Bangor' campaign, which highlighted the positive results that can be achieved when students work with, and within, the local community.

Last year the campaign involved the biggest ever clean-up of student areas of the City, when the Students' Union, in conjunction with Gwynedd Council, Fly-Tipping Action Wales and other Bangor Pride partners, succeeded in keeping 17.1 tonnes of rubbish off the streets in the last two weeks of the academic year.

However encouraging students to take pride and care in their city is only one aspect of the campaign. Love Bangor also aims to publicise to the local community the benefits that students can bring to the city, for example the 500+ volunteering hours a week that our students contribute through Student Volunteering Bangor's projects alone, which include

environmental clean ups and after school clubs for children.

The campaign also includes the 'Love Bangor Card', which encourages students to shop locally. Local businesses back the Love Bangor campaign by offering discounts and promotions to Bangor University students who possess a Love Bangor card; in return Bangor Students' Union uses all of its available marketing outlets to advertise each business and their specific offer.

Commenting on the Love Bangor scheme, Bangor Students' Union President Jo Caulfield said "The Love Bangor campaign is a long term commitment to improving community relations. There are clearly tangible benefits of students and the other members of the local community coming together, and the team hope that our continued efforts will lead to even more successes this academic year."



## CERI THE CLAM

An interactive cartoon character, Ceri the Clam, brought the science of ageing to life for young visitors to the prestigious Royal Society's annual Summer Science Exhibition at London's Southbank Centre.

Ceri was created to guide visitors through the exhibit - "*Arctica islandica*, the longest-

lived animal on Earth". The exhibit had something for everyone, with a series of touch-screen based interactive games that explain the science, a 'real' beach for toddlers, spectacular specimens of shells, a 1,500 year old section of a giant Sequoia tree and the longest-lived animal known to science.



Scientist leading the research at the University's **School of Ocean Sciences** were also on hand to chat to the public. They are leading an international consortium of researchers working together on the project.

"Our display highlights investigations into climate change and ageing processes which make use of a remarkable marine clam that can live for more than 400 years," explains Professor James Scourse. The team were among 27 exhibitors who got through a very competitive selection process.

"The Exhibition was a great success and we have since been invited to take it to Edinburgh and the House of Commons," added Professor Chris Richardson.





## PONTIO RACES AHEAD

Bangor and the surrounding area will experience a major transformation as a result of the new Pontio development, which has progressed at tremendous pace in the last 12 months.

During the year, work has progressed on finalising the design, planning permission has been obtained, demolition of the old Students' Union and Theatr Gwynedd has been completed, and funding secured.

Professor Fergus Lowe, Deputy Vice-Chancellor of Bangor University, who is leading the project said: "It has been a major undertaking by the staff and students involved and a tremendous achievement to have got this far in so little time.

"We've overcome many challenges, particularly in relation to the tight timescale we've had to work within. Though there is still a long way to go, I would like to express my thanks and congratulations to everyone involved for their great efforts thus far."

Pontio will include a dynamic Innovation Hub, cutting-edge teaching and learning facilities, a home for our Students' Union, new social learning spaces, and a range of indoor and outdoor performance spaces including a theatre and cinema space, an outdoor amphitheatre, cafés, restaurants and parkland where people can meet, learn and be entertained.

It will be a world-class centre for innovation in science, technology and the creative industries, and will be a cultural beacon for Wales and a champion of the Welsh language.

The new building will open early in 2013 and will focus on quality skills that will generate new technologies for businesses in areas as diverse as digital technologies, the creative industries, environmental goods

and services, bioscience, advanced software and visualisation amongst many others. It will also showcase and help to develop a range of world-class research on pressing socio-economic issues, particularly in the areas of health and protection of the environment. The project is expected to create or safeguard around 900 jobs.

Professor Lowe added: "We are grateful to the Welsh Assembly Government and the European Union for their vision in supporting this crucial project in north Wales."







## COMMUNITY





## COMMUNITY

### CHEMISTRY REACHES OUT TO THE COMMUNITY

Bangor's **School of Chemistry**, a founding department of the University, provides extensive schools and out-reach programme. With support from the Royal Society of Chemistry, they extended their activities in order to celebrate the School's 125th anniversary.

As part of their regular activities, primary school children were wowed with a travelling chemistry show and secondary pupils visited the School for several different events including the Salters' Festival of Chemistry for 11-13 year olds.

Having won a regional heat of the National

Schools Analyst Competition for AS level students at Bangor, Ruthin School went on to win the UK Competition. Dr. Mark Hannant, Ruthin School's Head of Chemistry said, "The university lab experience far exceeds anything we can offer in a small school. Our team thought the regional heat was very challenging and enjoyed having access to analytical hardware. I'm sure this victory will have a great influence on their future academic choices."

Local companies were engaged to give "Chemistry - your Future" careers presentations to students at a number of

events, highlighting the different and varied career choices open to Chemists. These included a careers event, a Chemistry Pharmaceuticals event and a Chemistry Textiles workshop.

The activities culminated in a two-day celebration of chemistry. The School opened its doors to both schools and the public for hands on demonstrations and chemistry fun. This final event involved staff, students and alumni, who attended a student 'ChemSoc' hosted "Tea in the Tower", followed by a prestigious lecture by past member of staff and Honorary degree recipient, Sir John Meurig Thomas.