

WINTER 2012/13

Cardiff

University Magazine
— for Alumni & Friends

The future's bright

CARDIFF'S WORLD-CLASS
POSTGRADUATES



LIFE-CHANGING SCIENCE

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Revealing the Cardiff Rare Books
Collection's hidden gems





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The AMP Project is a new partnership between the Cardiff Network of Alumni and Friends and the University's Careers & Employability Service.

AMP stands for Alumni Mentoring & Placements, and will link students who are looking for paid work placements and mentoring with the wider Cardiff alumni network.

Alumni will benefit by having access to the wide pool of talent available at the University, while students will have an opportunity to earn while gaining work experience crucial for today's job market.

To find out how your business can benefit,
take a look at www.cardiffnetwork.cf.ac.uk/amp



Welcome



Welcome to this issue of the *Cardiff University Magazine*. Since I took up my new role as Vice-Chancellor and President of Cardiff University on 1st September, I've learnt much about Cardiff, its staff, its students and its alumni. I've already been lucky enough to meet some of our former students on a recent trip to Beijing and I hope to be able to meet many more of you around the world in the months and years to come.

What is clear to me is that when our students arrive here in Cardiff, whether as excited new undergraduates, experienced postgraduate researchers or mature students juggling their studies with other responsibilities, that first day is the start of a lifelong relationship, one which brings them friendship and fellowship with both the people and the place where they spend their student life.

Amongst the many thousands of students here in Cardiff we have a vibrant and growing postgraduate research community, one which is vital to our research efforts and success. Their work and experiences are the focus for this issue of the *Cardiff University Magazine*. From their innovation and commitment working alongside our leading researchers in the fight against cancer to helping to support orphans of HIV and AIDS in rural Malawi, Cardiff postgraduates are trailblazers.

Our postgraduate research students are leading the way in solving the many problems we all face in our varied societies worldwide; medical, cultural, ethical and political. These bright and brilliant minds are busy solving the problems we all have today. I believe all our tomorrows will be the better because of their hard work.

Wherever you are when you read this magazine, thank you for your continued support of our work.

Professor Colin Riordan
Vice-Chancellor & President

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Cardiff University
Development and
Alumni Relations
Division,
Cardiff University,
Deri House, 2-4 Park
Grove, Cardiff CF10 3AP
T +44 (0)29 2087 6473
F +44 (0)29 2087 0326
E alumni@cardiff.ac.uk
www.cardiff.ac.uk/alumni

Editor: Sarah Price

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The Westdale Press Limited
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East Moors,
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Tower House, Fairfax Street,
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T +44 (0)117 927 9009
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update

news and events at Cardiff University

For the latest news and events at Cardiff University, visit www.cardiff.ac.uk/news

Satisfaction guaranteed

Student satisfaction at Cardiff has reached its highest level since the introduction of the annual National Student Survey in 2005. Students rated the University highly in a number of areas, including teaching, assessment and feedback, academic support and learning resources, with 89 per cent of the University's students satisfied with the quality of their course.

Satisfaction rates were high throughout the humanities, science, engineering, healthcare and the professions. The survey also included a question on the quality of students' unions, with

Cardiff coming well above the UK average.

Cardiff has the highest number of overall satisfied students in Wales, and ranked fifth amongst the best research-intensive universities in the UK. Professor Patricia Price, the University's newly appointed Pro Vice-Chancellor for Student Experience and Academic Standards said: "There is much to be proud of in our learning and teaching. This result is especially pleasing as it reflects the true views of our students – and the hard work of staff across the University."



Cardiff: top 20 ranking

Those who sing Cardiff University's praises recently got confirmation of the institution's position as one of the UK's top universities. *The Sunday Times University Guide 2013* places Cardiff in the UK's top 20, and also shortlists the University for the 'University of the Year' title.

The guide states: "This powerhouse of academic and research excellence boasts one of the best graduate employment rates in Britain. Students don't just get any old job either – most secure degree-level posts with decent starting salaries."

Cardiff's position comes through attaining high standards in a number of areas: student satisfaction, teaching and research quality, entrance qualifications held by new students, degree results achieved, student/staff ratios, graduate employment levels and retention levels.

Alastair McCall, editor of the guide, said: "Our league table rewards universities which have placed great focus on providing top quality teaching."

"If a university provides a great student experience and offers good graduate job prospects, plus a strong track record for degree completion and outcomes, good rankings and students will follow."



In the spotlight

The University's Vertical Studio module gave first and second year Architectural Studies students the opportunity to project animation and imagery onto some of the University's best known buildings this autumn.

Students learned how to translate designs, surveys and theoretical discussion into 3D modelling and animation, giving them the opportunity to explore themes and techniques outside those of normal design projects.

"Innovative methods and tools were used

in a way which explored architecture outside the studio. The results engaged the public through an exciting and novel medium," says Nick Humes, Research Associate and Module Leader.

Nick hopes that this new way of looking at buildings not only "energised the facades, but also provided the students with a new understanding of architectural techniques," something that can assist them in future career development.

Reducing the threat of bioterrorism

Researchers from Cardiff are working with scientists from the USA, Turkey and Georgia to develop a vaccine that could be used if anthrax is used in a terrorist attack, as was the case in the US postal attacks of 2001.

Cardiff Microbiology Professor Les Baillie, from the School of Pharmacy & Pharmaceutical Sciences, is leading a NATO project that will study the potential

misuse of anthrax: "Currently, the majority of the world's population is susceptible to infection with *Bacillus anthracis*, the bacterium which causes anthrax."

However, as natural human infection of anthrax is rare in NATO countries, scientists are conducting research in regions



where anthrax represents a significant disease of animals and humans, such as the Caucasus.

In addition to NATO countries being prepared for the threat of anthrax attacks, the establishment of a research centre in Georgia will ultimately help improve the lives of people in that region.

Guardians of the word

A new partnership with one of the UK's largest media companies will further enhance the University's reputation as a centre for excellence in journalism. The year-long programme will see Guardian News & Media working alongside the University to offer a new master's degree in Journalism with Digital Media.

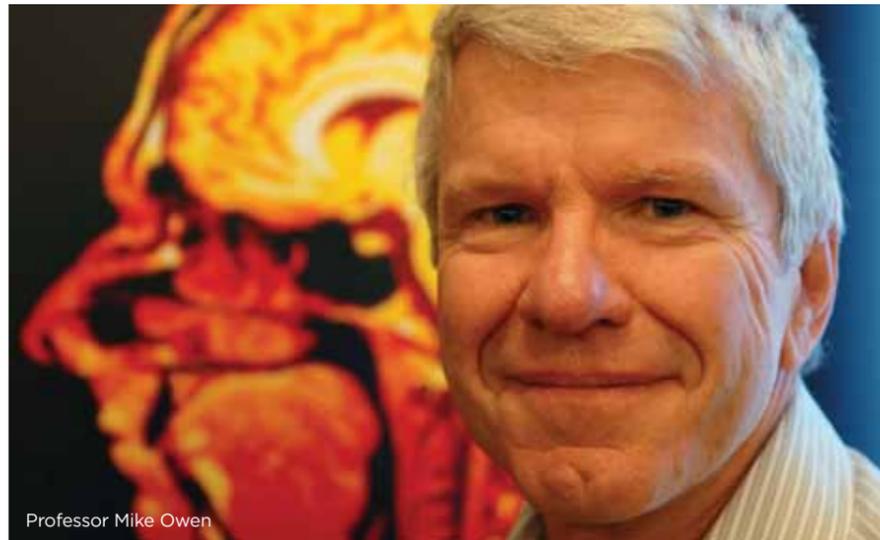
To be based at a central London location, a mixture of guest lecturers will teach students the core fundamentals of journalism.

Alan Rusbridger, Editor-in-Chief, Guardian News & Media, said: "Journalism is changing at the speed of light. Virtually every week we are learning new techniques and fresh truths about the way digital technologies are transforming the media."

"Guardian News & Media has been at the forefront of that change. By partnering with a well-established and respected university department we can offer a master's degree that will produce a generation of students who are completely up to date with the skills needed to succeed in journalism today."

"Everything about the media is there to be re-imagined and reshaped. Our new master's degree will be applicable to a wide range of careers, from news to website content management and social media."





Professor Mike Owen

Recognition for two decades of research

Having spent 20 years looking at the causes, prevention and treatment of schizophrenia, in October Professors Mike Owen and Michael O'Donovan from the University's MRC Centre for Neuropsychiatric Genetics and Genomics were awarded the distinguished Lieber Prize for Schizophrenia Research in New York.

The professors' work involves finding out which genetic variations make people more susceptible to the disease, and the way psychiatric disorders are classified may be revised as a result of their findings.

The \$50,000 prize rewards the achievement, as well as providing further incentive to carry out future research.

"It's great for science in Wales and great for Cardiff University, which has really backed us over the past 20 years," said Mike Owen.

Michael O'Donovan continues: "Psychiatric genetics has not always been a popular area of research – it still isn't. But while the job isn't finished, enough progress has been made in this area of research to merit the team's reward and to move the field forward."

IN BRIEF

The science of scientists

Cardiff Professor Harry Collins' role in establishing the sociological study of science has been recognised with a Fellowship of the British Academy. Professor Collins (below) said of his Fellowship: "I'm very



pleased to see the sociology of science recognised in this way."

Public recognition

Professor Nick Pidgeon has been made an Honorary Fellow of the British Science Association, in recognition of his contribution to promoting openness about science in society.

Professor Pidgeon's work has been at the forefront of understanding public attitudes towards environmental and technological risk issues such as climate change and nuclear power.

Academic to lead conservation charity

The Royal Society for the Protection of Birds, Europe's largest conservation charity, has elected Cardiff's Professor Steve Ormerod as its new Chairman.

As a professor of ecology in the School of Biosciences, he has published over 250 papers on ecosystems, and was previously Chair of the RSPB's Advisory Committee for Wales as well as President of the Institute of Ecology and Environmental Management.

Cardiff's new structure

The University took on a new look in September as three Colleges, each under the leadership of a Pro Vice-Chancellor.

The College of Arts, Humanities and Social Sciences

Pro Vice-Chancellor and Head of College – Professor George Boyne

The College consists of 11 Schools: Business; Planning and Geography; English, Communication and Philosophy; European Languages, Translation and Politics; History, Archaeology and Religion; Journalism, Media and Cultural Studies; Law; Lifelong Learning; Music; Social Sciences; Welsh.

The College of Biomedical and Life Sciences

Pro Vice-Chancellor and Head of College – Professor Dylan Jones

The College consists of nine Schools: Biosciences; Dentistry; Healthcare Studies; Medicine; Nursing and Midwifery Studies; Optometry and Vision Sciences; Pharmacy and Pharmaceutical Sciences; Postgraduate Medical and Dental Education; Psychology.

The College of Physical Sciences

Pro Vice-Chancellor and Head of College – Professor Karen Holford

The College consists of seven Schools: Architecture; Chemistry; Computer Science and Informatics; Earth and Ocean Sciences; Engineering; Mathematics; Physics and Astronomy.



university view with Professor Colin Riordan New Vice-Chancellor and President Professor Colin Riordan outlines his vision for the future of Cardiff University

The road ahead



It's a pleasure to write University View for the *Cardiff University Magazine*, the first issue since I took up my role on 1st September.

Some of you may be aware that significant change is afoot at Cardiff University.

I have already started work on refreshing the University's strategy and priorities. We need to focus on research excellence, student experience, internationalisation and engagement with Wales. I already have a new senior team in place and we're working on how to realise our ambitions in these areas.

I want Cardiff University to be recognised for its research and teaching excellence and to be a top 100 university in international league tables, as well as being a main driver for the knowledge economy in Wales. I want it to be a place where students not only receive an excellent education, but also have an outstanding and memorable experience during their time as a student. Cardiff needs to fulfil its potential as a global university, and so I want our staff, our students and our alumni to think of us in that way, and to act accordingly.

We will need not only to develop strategic alliances with a select number of prestigious international partner universities, but also to ensure that our home students have every opportunity to study,

work or volunteer abroad. It also means giving all our students the opportunity for valuable and practical work experience during their time as students, both in the UK and overseas. This is something which I hope our thousands of alumni around the world will be able to help us with, and which I believe will enable Cardiff students to get ahead in today's competitive worldwide employment market.

Our research will tackle critical global issues that require cross-disciplinary co-operation. We need to ensure our research income remains high and that it is funded from a diverse range of sources. We also need to invest significantly in our research, and in providing the best education and facilities that we can offer our students. They deserve nothing less.

I want Cardiff University to be known around the world as an institution that is dynamic, determined and financially resilient, one where our students and our staff are known for their integrity and their academic brilliance and where our graduates are sought after by employers for their experience as well as their excellent intellectual capacity.

My sincere hope is that you will want to join us on our journey and when we do arrive at our destination, to know that you played an important part in getting us there.



Development update

a round-up of the new developments made possible thanks to the support and generosity of our donors



Trevithick thank you

Anyone who has studied engineering, computing, physics and astronomy at Cardiff will doubtless have memories of the University's Trevithick Library.

The complete refurbishment of the library in 2009 has been met with resounding praise from everyone who uses the facility, with its highest ever visitor numbers since it reopened.

In September, the sponsors who made the refurbishment possible were invited to an event that showcased the library's importance in the digital age.

Captain Ken Nelson, in addition to being a vital source of funding for the University's engineering department (see next story), also funded the silent study area within the Trevithick Library. Having travelled with his daughter from Australia to the UK to visit the library and see the plaque dedicated in his honour, he said: "It was well worth the trip!"



A lifetime of service

Cardiff was honoured to have one of the University's longest-standing benefactors visit in September. Captain Ken Nelson (below), who was born in South Wales, was studying for a degree in civil engineering when his studies were interrupted by the outbreak of the Second World War.

Service in the Army and Royal Air Force was followed by a return to the University to complete his studies, before Captain Nelson took a job with the Victoria Water Commission in Australia, his adopted country where he remains to this day.

Throughout his career as a water engineer, Captain Nelson has been contributing to the Nelson Scholarship Fund, with a total donation of £150,000.

Along with a tour of the School of Engineering, Captain Nelson had the opportunity to meet with students who have benefited from his generosity over the years.



Body of research

Between 40 and 50 people leave their bodies to Cardiff University each year. Without donations of this kind, dentists, doctors, surgeons and pathologists of the future would be unable to get experience of the human body that is so vital for their training.

It's to honour those who have donated their bodies to the University that Cardiff's Anatomy Laboratory, the largest anatomy room in the UK, has recently unveiled a unique piece of artwork by renowned artist Tom Phillips.

The marble artwork (right) bears the inscription 'Alive we thought beyond our lives to give our bodies as a book for you to read', words that will be considered by the 800 undergraduate and 100

postgraduate students who regularly use the laboratory. In addition to the dental, medical and biomedical science students who benefit from these donations, the laboratory is also used by students of radiography, physiotherapy, podiatry, art and optometry, and for medical and surgery training sessions and courses.

Bernard Moxham, Professor of Anatomy in the Cardiff School of Biosciences, said: "This valuable learning experience is due entirely to the generosity of donors who leave their bodies to the University, and, in doing so, give a gift of life and knowledge for future generations."



Long-term thinking

In November, Griff Rhys Jones brought an element of celebrity to the celebration of the work of Cardiff's flagship Sustainable Places Research Institute.

As one of the UK's best-known television personalities, Griff knows a thing or two about adopting the long view, which is perhaps one of the reasons he decided to become patron of the Institute in 2011.

A Cardiff University Honorary Fellow whose father was a graduate of the University, Griff said: "I am delighted to be in Cardiff supporting the Sustainable Places Research Institute. There are a lot of issues and even government policies that rest on the notion of sustainability. We all need to be aware of what this means for every industry, business and discipline."

Since its creation in 2010, the Institute has

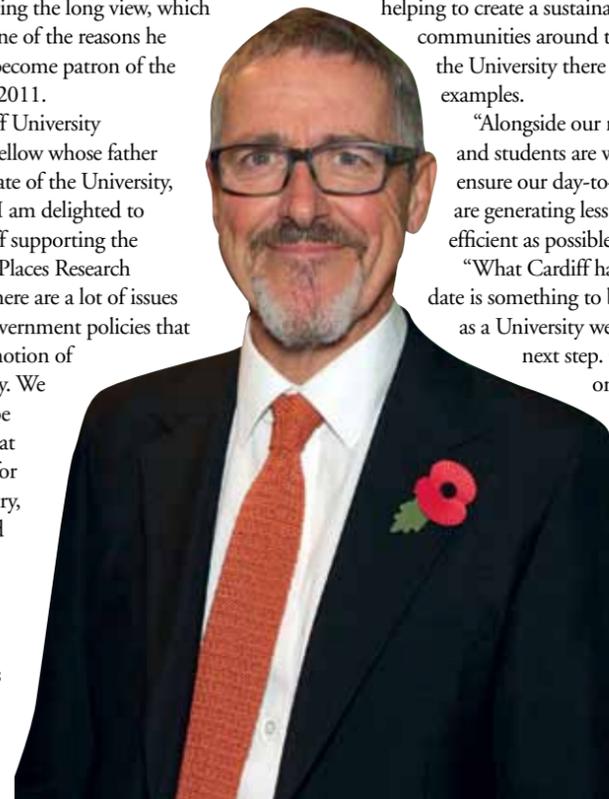
generated new ideas around the management and policy needs for integrated solutions to sustainable living.

Vice-Chancellor Professor Colin Riordan said: "The Sustainable Places Research Institute is a brilliant example of how our research is helping to create a sustainable future for communities around the world. Across the University there are other such examples.

"Alongside our research, staff and students are working hard to ensure our day-to-day operations are generating less waste and are as efficient as possible.

"What Cardiff has achieved to date is something to be proud of, but as a University we need to take the next step. Cardiff can be

one of the greenest universities in the UK, one that sets the standard for other institutions and organisations – we mustn't be afraid to think bigger."



Banking on Cardiff

Cardiff further strengthened links with the Spanish banking giant Santander, when Ana Botin, CEO of Santander UK plc, gave a guest lecture at the University in October.

Ms Botin's talk focused on how crucial partnerships are to the UK's economic recovery and growth, including the importance of the transfer of knowledge from universities to society and the role of student entrepreneurs in driving economic growth.

The bank's history of supporting the University dates back to 2008, when Cardiff became the first Welsh university to join Santander Universities Global Division which provides funding for scholarships and awards for students and staff to study in the UK and abroad.

Santander also supports the University's Student Hardship Fund, a research grant for the School of Welsh, support for the Cardiff School of European Studies, mobility grants for Cardiff Business School and support for the Student Development Unit.

Luis Juste, Director Santander Universities UK said: "We are committed to maintaining our long-term support for Cardiff University, an exemplary higher education institution not only in Wales but also worldwide."



The future's bright

Cardiff is internationally recognised as one of Britain's top research-intensive universities. Meet four of the University's postgraduate research students leading the way ahead

Mandayachepa Nyando

Caring for victims of HIV/AIDS in Malawi

'Mayi is an old lady in her 70s. She looks after her niece, who is 11 years old and HIV positive.'

It's hard not to be moved by the first sentence of Mandayachepa Nyando's research paper, but unfortunately this is a situation all too commonplace in many African countries, including his homeland of Malawi.

'The small animal', as HIV/AIDS is known in Malawi, directly affects an estimated 12% of the population. This was one of the factors that led to Mandayachepa's decision to do a PhD on HIV/AIDS in Malawi, and follows a master's in Nursing also taken at Cardiff.

"The majority of caregivers are mothers who live in rural areas," says Mandayachepa. "They are less educated and are amongst the poorest in the country. Resources are very limited for caring for children living with HIV/AIDS, and the carers struggle to get materials and food resources for their family members.

"The women described their child's illness as a heavy burden. Caring for a child who has a lifelong illness such as HIV and AIDS is a difficult task. In addition to looking after this child, they also talked of taking care of other children who are HIV negative.

These women demonstrated that they are highly motivated and resilient, however, their role as carers is largely unrecognised."

Mandayachepa's research has found that, as well as having the responsibility of looking after a child who is HIV positive, women are often having to look after their husbands and the burden of financially supporting their family also passes to them.

Mayi continues: 'My husband – the problem is that he is a farmer and he is also touched by the small animal and he has problems finding money as well. He gets sick often and sleeps in the hospital frequently.'

"It's a disastrous situation for the HIV and AIDS orphans," continues Mandayachepa, "because they won't grow up within a family. Some have suggested there will be social disintegration in Malawi because of this."

Although it's hard to believe, Mandayachepa often found these people, facing the toughest of situations, were able to present a positive face to the tragedy around them: "The mood of caregivers was generally positive about the future, although my interviews rekindled sad memories and experiences." ▶

Mandayachepa Nyando, helping to further the study of HIV/AIDS in Malawi



“Between 1976 and 1979, almost 800 events took place under the Rock Against Racism banner”



▶ **Joe O'Connell**
The politics of punk

The punk rock years have taken on an almost mythical status in the history of UK popular music. As well as giving young people the opportunity to rebel against the norms of the day, the genre was also a voice for many against Thatcherism, the establishment, racism... and the 10-minute prog-rock guitar solo.

Joe O'Connell, a trained instrumentalist who first came to Cardiff to study clarinet, before coming to Cardiff University, is dedicating his PhD to punk and the politics of the bands, and people who followed them.

“I've always had an interest in popular music and politics, and the time the two came together in a way as never before was during the post-punk era,” says Joe. “While initially punk wasn't political, some punks saw the potential for political discourse and activism within the genre, especially

with the rise of the National Front.” “Rock Against Racism was a grassroots musical protest movement formed in 1976, and between then and 1979 almost 800 events took place under the RAR banner, including two carnivals that drew crowds of up to 100,000 in Manchester and London.”

At its peak the National Front became the fourth largest political party in the UK, successfully stirring up tensions between minority and white working class communities. This fascist organisation's popularity was boosted by notorious speeches by Enoch Powell, while musicians such as David Bowie and Eric Clapton seemed to play to these views.

“Some interesting field work has included interviewing members of a punk band called Alien Culture. This band, which was formed after members went to a RAR gig in London, comprised three first

generation British-Pakistani members. They saw Rock Against Racism as a natural home when many around them seemed to be questioning their right to be in this country. Interestingly, although Alien Culture were firmly against the establishment at the time, two members of the band have gone on to work in the financial services in London!”

And what about today – is there still a strong association between popular music and politics?

“In the late 70s the Labour and Conservative parties were about as far apart politically as it was possible to be. Nowadays there doesn't seem to be that fragmentation to the same extent, perhaps that has meant young people don't feel the need to rebel through music. However, a song such as ‘Ill Manors’ by Plan B shows there's still anger with the system, and that gets played on BBC Radio 1.”

Above: Joe O'Connell outside the Students' Union. The Great Hall has played host to many big names over the years, including David Bowie, The Manic Street Preachers, Super Furry Animals and Motörhead

Roz Warden

Social service provision for British Muslims

While Islam has a long history in the UK, events in the past decade have led to much debate as to how this particular religion fits within a modern British society.

But while certain elements of British Muslim identity are frequently discussed, other areas have suffered through a lack of research. One such area is the provision of support for Muslim families using social services.

“I studied a module on Islam in the modern world as part of my degree in Religious Studies, which really got me interested in this subject,” says Roz Warden. “This carried on through my master's and now into my PhD. I realised that although British Muslims are often in the news, there wasn't as much research into this particular subject as you'd expect. I really wanted to be able to provide relevant research that could further inform the debate.

“In times of difficulty, people can often look to their faith for guidance, comfort and so on. However, it seems that the services in place to look after people who need help aren't always prepared for this, with training in matters such as faith and wellbeing being fairly limited.

“My research is looking at Islamic approaches to social work and mental health within the voluntary sector, and

has involved speaking to professionals working at grassroots level and some of their service users. I'm aiming to understand how contemporary Muslim communities are developing professional faith-based approaches and also the potential impact and benefit this might have for their service users. The research will help inform statutory and non-Muslim professionals about how they may provide more accessible and sensitive services to Muslim communities.

“It also potentially contributes to broader debates regarding the role of religious identities within the public sphere and issues surrounding multiculturalism in Britain.”

Roz hopes that, by helping to inform social service providers of how welfare services may increasingly meet the needs of diverse, multicultural and multi-faith communities, professionals will be better prepared to help with problems as they arise.

“I hope the research has focused on issues of relevance to British Muslim communities. Cardiff's Centre for the Study of Islam in the UK is a fantastic place to study as Cardiff has one of the oldest and most diverse Muslim communities in Britain. If this research informs future policy and furthers academic debate I'd be very happy.”



George Ford at the School of Physics and Astronomy

George Ford

Studying the formation of stars

At the start of 2013, the Herschel Space Observatory will be performing its final tasks. This is because the observatory, the largest infrared space telescope ever launched, is likely to run out of liquid helium, the coolant vital for its survival as a super-sensitive telescope.

George Ford has been studying the data sent back from the observatory, and in particular that relating to Andromeda, our own Milky Way's nearest spiral galaxy neighbour, since starting his PhD in 2010.

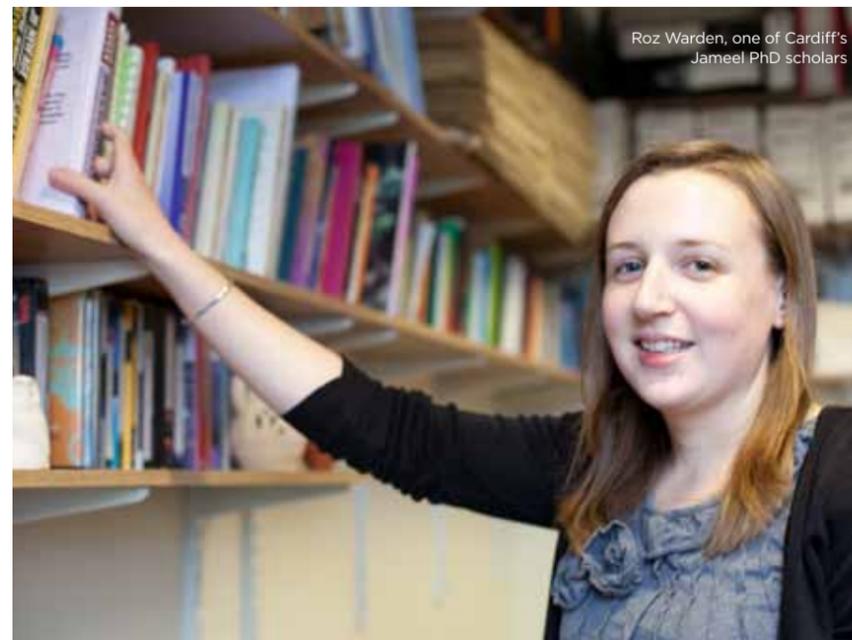
“The Herschel Space Observatory reached its current location a couple of months after being launched in May 2009,” says George. “It's far enough away from Earth to avoid the radiation that our planet produces, but just near enough – 930,000 miles – to be pulled along by Earth's gravity.”

The observatory's 3.5-metre diameter mirror is capable of capturing images of the coolest and dustiest objects in the universe.

“Dust helps to drive the formation of stars and my main interest is star formation within Andromeda, which is the largest galaxy in our local group, similar in size to the Milky Way. Andromeda is approximately 2.5 million light years away, but if our eyes were sensitive enough it would look much bigger than the full moon. This makes it our best view of a whole galaxy outside of our own, so we can see phenomenal detail.”

Specifically, George is comparing how many stars are formed with the amount of interstellar material of which they are made.

To emphasise the importance of this research, George cites one of the most famous living astronomers, Professor John Bally: “‘Star formation is the single most important process for determining the fate and evolution of normal matter in the universe.’ In other words, if we want to know our ultimate origins, we need to study star formation. We are all made of stars.”



Roz Warden, one of Cardiff's Jameel PhD scholars

Giving postgraduates the edge

Cardiff's mission: to attract the world's brightest postgraduate researchers. With cutting-edge facilities and greater investment in training and support, students are already reaping the rewards, reports Sian Phillips

In the not so distant past, starting a research degree was often the beginning of a meandering journey of languorous study over an indeterminate number of years. Nowadays, the postgraduate experience couldn't be more different.

"The vast majority of research students at Cardiff University complete their doctorate within a four-year limit," says Professor Ken Wann, Deputy Dean of the University Graduate College (UGC), which opened two years ago to support postgraduate students.

"It's a big ask," he says. "We want our postgraduates to produce high-quality research – this is vital for our reputation and can help secure funding for the University – but they are also teaching and interacting with undergraduates. We also want the research students to develop a skillset that might be useful for them beyond their years at Cardiff. It's a very demanding few years."

The expectations it has of postgraduate students are high, but the university is unequivocal about its ambition.

200
development
programmes
available to
PHD students

2,000
research
students
are enrolled
at Cardiff
University

"Cardiff is one of the UK's top research universities. It's our vision to be a location for world-class research and to attract the highest-quality research students from the UK and overseas," says Professor Terry Marsden, Dean of UGC.

"To ensure Cardiff attracts and maintains a vibrant research community, we opened the University Graduate College, which works across the schools and colleges. The aim is to develop and improve the PhD experience by supporting postgraduate students with training, providing excellent study facilities and increasing the capacity for research."

UGC has also fulfilled the function of building a more cohesive postgraduate community. Over 500 research students begin their PhD work at Cardiff University each year, and they and their supervisors are all members of UGC. Previously, there were four graduate schools arranged by disciplines (social sciences, arts and humanities, physical sciences and engineering, and biomedical and life sciences) and although individually each was highly effective, there wasn't much connection

between the schools.

"When we created UGC, we wanted to make sure that all research students had the same experience – that they all had the same access to any training and development support, good facilities and dedicated workspaces in which to do their work, and access to everything they need to carry out their PhD," says Professor Wann. "We wanted to make it very attractive for postgraduates to study at Cardiff."

Training and development

One of UGC's functions is to offer an extensive training and development programme for postgraduate researchers – around 200 different courses in all.

"There are the expected courses such as presentation skills and project management, as well as topics like understanding the impact of research on policy, or engaging with schools and communities," says Terri Delahunty, Head of Administration for UGC.

The UGC Programme was shortlisted for the 2010 Times Higher Education Award, *Outstanding Support*



Illustration: Darrel Rees

for *Early Career Researchers*. Its success, says Professor Wann, comes down to results.

"We canvass deep and wide by asking our postgraduate research community what they need to complete their PhDs. We want support that is fit for purpose."

"We know that only a fraction of research students will remain in academia after their PhD and therefore we need to support them for their future. This could be simply helping them write a CV, but there are many ways to enhance their professional development."

Funding conferences

Each year the UGC facilitates and funds student-led conferences, which enable postgraduate researchers to communicate their work to a wider audience of students from different disciplines. "It helps the students to share and develop their research and to establish interdisciplinary links," says Terri Delahunty.

The University is keen to promote information-sharing and to this end offers an additional pot of funding – up to £1,000 – to support interdisciplinary activities such as themed forums, seminars or workshops.

Modern facilities

Next summer, interdisciplinary activity will be made even easier as UGC moves into a dedicated space in the new Hadyn Ellis building which will sit within the new Maindy Park research campus. There will be a 150-seat lecture theatre as well as exhibition space, four training rooms and a café area.

Professor Wann says that the dedicated space will further enhance UGC and he anticipates some unexpected outcomes: "Having a 'collision area' for UGC is very exciting because some of the best ideas and best discussions come from corridor chats."

Since 1999, there has been a Graduate Centre in the students' union building on Park Place in which postgraduate students can socialise in a café bar, use the IT room, or meet in one of five dedicated study rooms and lounge.

Terri Delahunty, who oversees the facility, says that it is a vital hub for those who are new to the city. "Pursuing a postgraduate degree can be quite lonely – especially if you're coming to Cardiff from elsewhere – so we felt that it was important to have a space where graduates could socialise apart from the undergraduates. We offer lots of trips and social nights to give students a reason to turn to the person next to them in a lecture theatre and suggest meeting up."

The Graduate Centre also runs a 'Welcome Fortnight' with a packed programme of events such as quizzes and a café crawl to help new postgraduates to settle in.

In October last year, a new graduate social and study space also opened in the Heath Park campus to serve the medicine, dentistry, healthcare and midwifery and nursing researchers.

Social support

New students coming to the capital to begin their research degree can also join one of the postgraduate house hunting events, held each summer. Organised by the Postgraduate Recruitment Office and the Graduate Centre, it helps students link up to find housemates and provides information and advice for those new to the city.

Communication

The Graduate Centre also sends fortnightly email bulletins to students, is on Twitter and has a quarterly newsletter laden with pertinent University news and professional guidance. A recent issue gave a lowdown on how to use Twitter for research, for example.

Professor Wann believes that the support that the University gives these students isn't just a gesture but a duty: "The contribution of PhD students to the research output of the University is huge – and vital for our position as a leading university," he says. "While these students are with us, we are effectively their employer. We have a responsibility, therefore, to look after them, make them comfortable and make sure that they have a good experience and are ready for the outside world when they leave Cardiff University."

President's Scholars

The President's Research Scholarships are the University's flagship postgraduate awards. The 72 scholarships are fully funded by Cardiff University at RCUK (Research Councils UK) level. Here three President's Scholars describe their experience:



Anwen Cope Antibiotics for Primary Care Dental Problems

"Cardiff has a really strong emphasis on collaboration. The interdisciplinary support that I've received during my project has allowed me to develop my research interests and has made me excited about continuing my research in the future."

Being part of a postgrad community is especially important while completing a PhD as it gives you much needed support when things might not be going quite to plan!"



Esther Warnert Brain imaging

"I was very happy to be awarded one of the President's Scholarships. For me it meant that I could spend the next three years in the UK doing research, with a decent standard of living, without having to find a job on the side. It enables me to rent a nice place to live, and to join sports teams as well. In this way, I can really focus on my PhD itself, and not have to worry about money."



Lisa Caryn Sheppard Multiculturalism in Wales

"The research network has been very useful as it has given me a chance to familiarise myself with different aspects of multiculturalism. In addition, the financial support that my scholarship has given me is very important. Without it, I would have had to study part time, and it would have meant taking much longer to complete my thesis."

On a university level, the University Graduate College offers funding for postgraduate students to organise conferences and the like to develop practical skills that will be helpful for us in our careers."

The knowledge network Y rhwydwaith gwybodaeth

By linking academia and organisations representing multicultural Wales, Cardiff students are hoping to enhance cultural understanding

Drwy gysylltu academia a sefydliadau sy'n cynrychioli'r Gymru amlddiwylliannol, mae myfyrwyr yng Nghaerdydd yn gobeithio gwella dealltwriaeth ddiwylliannol

A one-day forum to create a dialogue for multicultural Wales was held at the University in October. The event, organised by Connecting Interculturalism Cymru (CIC) and supported by the Cardiff University Graduate College, gave organisations from up and down Wales the opportunity to discuss what multiculturalism means for Wales, and how the gap between academia and practitioners can be bridged.

One of the day's organisers, Geraint Whittaker, who is researching Welsh identity for his PhD, said: "With a keynote speech by Vaughan Gething, Assembly Member for Cardiff South and Penarth, and representation from Cardiff's Welsh Language Initiative, Black Association of Women STEP Out, Muslim Council of Wales and North Wales Race Equality Council, there was certainly a lot to discuss."

The day also featured a panel of Cardiff academics including Professor Diarmait Mac Giolla Chríost, who is currently leading a substantial research project on Welsh as a second language amongst adults.

"We had over 60 people attend the forum over the course of the day," continued Geraint. "We're really hopeful this is a first step in establishing a network of contacts between the third sector and academia in Wales. The organisations that were represented during the day can only benefit from access to some of the detailed research on multiculturalism that is taking place in our academic institutions." ■

Cynhaliwyd fforwm undydd i greu trafodaeth ynghylch y Gymru amlddiwylliannol yn y Brifysgol ym mis Hydref. Rhoddodd y digwyddiad, a drefnwyd gan Cysylltu Rhyngddiwylliannedd Cymru (CIC) ac a gefnogwyd gan Goleg Graddedigion Prifysgol Caerdydd, y cyfle i sefydliadau ar hyd a lled Cymru drafod yr hyn y mae amlddiwylliannedd yn ei olygu i Gymru a sut y gellir pontio'r bwloch rhwng academia ac ymarferwyr.

Dywedodd un o drefnwyr y diwrnod, Geraint Whittaker, sy'n ymchwilio i hunaniaeth Gymreig ar gyfer ei Ddoethuriaeth: "Gan fod araith gyweirnod gan Vaughan Gething, yr Aelod Cynulliad dros Dde Caerdydd a Phenarth, a chynrychiolwyr o Fenter Iaith Caerdydd, cymdeithas Black Association of Women STEP Out, Cyngor Mwslimiaid Cymru a Chyngor Cydraddoldeb Hiliol Gogledd Cymru, yn sicr, roedd llawer i'w drafod."

Roedd y diwrnod hefyd yn cynnwys panel o academyddion o Gaerdydd gan gynnwys yr Athro Diarmait Mac Giolla Chríost, sy'n arwain prosiect ymchwil sylweddol ar Gymraeg fel ail iaith ymhlith oedolion.

"Roedd dros 60 o bobl yn bresennol yn y fforwm yn ystod y dydd," ychwanegodd Geraint. "Rydym yn gobeithio'n fawr mai dyma'r cam cyntaf o ran sefydlu rhwydwaith o gysylltiadau rhwng y trydydd sector ac academia yng Nghymru. Gall y sefydliadau a gynrychiolwyd yn ystod y dydd ond elwa ar fanteisio ar yr ymchwil fanwl i amlddiwylliannedd sy'n cael ei chynnal yn ein sefydliadau academaidd." ■



Prominent Welsh personalities, from left to right: Vaughan Gething, Colin Jackson, Shirley Bassey, Colin Charvis

A laboratory for the humanities

The Cardiff Rare Books Collection is a huge boost to the University's standing as a centre for research in the humanities, discovers Tom Burnett



outside the room that houses the University's recently acquired Cardiff Rare Books Collection,

I'm almost nervous at the thought of being able to look amongst the 14,000 or so dusty volumes that make up one of the UK's most important collections of texts. The books are kept in a vault in the basement of Cardiff's Arts and Social Studies Library, and with one turn of a handle an entire room of bookcases moves silently along runners concealed beneath the floor.

Peter Keelan, Head of Special Collections and Archives, and Rare Books Cataloguer Ken Gibb show me around, and it's quickly apparent that their joy at securing a collection of this importance hasn't diminished in the slightest.

"There are so many books of huge importance for those studying the humanities," says Peter. "The collection includes examples of incunabula, as books printed before 1500 are known; over 400 ancient bibles dating from 1540 onwards; atlases, including a world map published in 1492; a set of 17th-century Restoration plays; 17th-century copies of Shakespeare's works and many examples from the private presses of Victorian publishers."

"With no university in Wales until the later 19th century, it was the great families of the day – the Howells, Butes and Corys for example – who built up the libraries that form much of this collection. There are also texts from scholarly families, people who had been to Oxford and Cambridge who then continued to collect for their private libraries."

"These collections were either donated to or bought by Cardiff City Council over the years, but as the municipal library's remit has become more about new books rather than old texts, the collection ended up in storage, available only to those who knew of its existence."

"One of the most exciting aspects is that you are given a glimpse into the personalities of the people who owned these books," continues Ken. "A gentleman's library exhibited his taste in authors and subjects, but the marks he made within these books show what he was thinking at the time. The books also tell us how books were used and given. Many have been handed down from one generation to the

next, with notes inside the front cover giving us a glimpse into the past."

Ken is halfway through a three-year cataloguing programme funded by the Esmée Fairbairn Foundation, and admits that he does sometimes lay awake at night thinking about the enormity of the task.

"I've worked with ancient manuscripts at a number of institutions, including the Bodleian Library at the University of Oxford, but this is the first opportunity I've had to catalogue a collection almost from scratch. The books have been largely untouched since the 1950s, so the first task is to find out what's in the collection, what condition the books are in, and to keep people informed as to the gems we're finding, which we do through the Special Collections and Archives blog."

And how do the archivists envisage the collection will be used in the future? Does the condition of many of the books mean they're going to be kept under lock and key?

"The books are already being used for research and will help to attract the

"The marks made within these books show what collectors were thinking"

Peter Keelan (left) and Ken Gibb in the Salisbury 'stack', Cardiff University's unique collection of Welsh literature and reference books

Images: Sean Maljon



Above: John Gould's pictures of birds led to him becoming the most celebrated ornithologist in Victorian Britain. His subjects were stuffed skins sent back from the Americas, and he only saw a live hummingbird much later in life when he travelled to the US.

► best scholarly minds to Cardiff, they will also be available for members of the public to browse through using Turning the Pages equipment and software, which can be lent out to libraries around the country," says Peter.

University Archivist Alison Harvey adds: "We work with academics to find out what's currently being studied and how the collection could enhance this. As archivists, we build up knowledge of what's in the collection, both through cataloguing and in our heads. We encourage people from the University and wider public to come and see us to find out how we can help with their research or interests."

But that's not to say the collection is open for general viewing. With some of the books perilously close to disintegration, many will have to wait for the texts to be conserved, digitised or written about in the blog to find out what secrets the collection holds.

However, the collection means that Cardiff's stock as a centre for research

excellence has skyrocketed – it really could be called a 'laboratory for the humanities' – thanks to the efforts of those determined to keep a collection of such importance both in the UK and in the public realm.

Janet Peters, Director of University Libraries and Chair of the Board of Research Libraries UK and one of the figures instrumental to bringing the collection to the University, said: "With today's public libraries having a very different remit from that of the past, Cardiff Council Library Service decided to sell the collection to raise funds to further modernise the city's libraries.

"But, as there was huge interest from the private sector, it was never a foregone conclusion that the collection would come to the University. Indeed, when we eventually secured the purchase of the books, they were with the auctioneer in London!"

To find out more, take a look at <http://scolarcadiff.wordpress.com/>

Hidden gems

Tiny monsters

This 1667 edition of Robert Hooke's *Micrographia* gave biologists the chance to study



tiny organisms for the first time, and was the country's first scientific bestseller.

Works of art

William Morris, a giant of the Arts and Crafts movement in the late 19th century, established the Kelmscott Press in order that book publishing could become an art form once again. The collection includes embroidered book covers and elaborate fonts, and even has proofs with scribbled comments and suggestions by Morris himself.



John Dee

The book signed by John Dee is a copy of *Summa contra gentiles* by Thomas Aquinas, published in Paris in 1519. Dr Dee, as mathematician and astrologer to Elizabeth I, had a library of 4,000 books, however his house was looted by a mob in 1583 and, although many of the books were recovered, Dee eventually had to part with them due to his straightened circumstances. The books were dispersed throughout Europe and researchers have long been working to track down surviving books to reconstruct Dee's library, which was at the time the greatest scientific and philosophical collection in Europe.

Breakthrough thinking

Killing cancer cells and bringing the spark of life to human embryos are among the developments being pioneered at Cardiff, discovers Katrina Hendley ►



Breakthrough thinking

*Killing cancer cells and bringing the spark of life to human embryos are among the developments being pioneered at Cardiff, discovers **Katrina Hendley*** ▶



Kick-starting life

While some research groups are making breakthroughs that could save lives, a team in the School of Medicine is concentrating on the other end of the spectrum... creating life

In a discovery that could help couples going through IVF treatment – 45,264 couples a year in the UK, according to figures from the Human Fertilisation and Embryology Authority – Cardiff researchers have found that injecting a missing sperm protein into eggs can kick-start embryo development.

This research, carried out in a model of human infertility, could dramatically increase the chances of a successful pregnancy where there is a problem with the sperm – around half of involuntarily childless couples who seek IVF.

Two of the researchers behind this study – Professors Tony Lai and Karl Swann – are the scientists who first discovered that sperm transfers a vital protein to the egg on fertilisation, which sets off all the biological processes necessary for the development of an embryo. That protein is PLC-zeta (PLCz) and initiates a process called egg activation – if it's missing or defective, the sperm won't activate the egg.

Their latest achievement, along with fellow researcher Dr Michail Nomikos, is to prepare active – ie viable – human PLCz protein and obtain positive results that had previously only been observed in the laboratory.

“We've shown that when an unfertilised egg is injected with human PLCz, it responds exactly as it should do at fertilisation,” explains Professor Lai. “We're working to design a kit to indicate the likelihood of a man's fertility, by determining the presence of PLCz in sperm. If missing, the active protein could be added during IVF.”

Alongside this, the team will continue with other PLCz-related research. “We want to establish how many cases of infertility are related to a lack of PLCz and test its safety in activating eggs for later development,” says Professor Swann.

Both professors are keen to point out that postgraduate students have played an important role in this research. Not least of these is Michail Nomikos who, although now qualified, was the first PhD student to study PLCz following its discovery and has remained involved with the team – in fact he was the lead author of the recent study, published by Fertility and Sterility.

45,264

couples in the UK have IVF every year

cancer treatment. This group has been funded by the British Cancer Campaign to investigate whether high activity of a cell protein called Lyn kinase creates the conditions for triple negative tumours, the most aggressive form of breast cancer.

“We're trying to understand in more detail what Lyn kinase does in normal cells and breast cancer cells,” explains Dr Smalley. “We know that it's a druggable target – that we could design molecules that would inhibit its activity – so if our hypothesis is correct, that would be a real possibility. It would be a big step forward because targeted treatment isn't currently available for triple negative tumours.” That, though, is a little way down the line and the next three years will be a crucial time for the lab.

This project will start in January 2013, and Dr Smalley is hoping to have two postgrads working in his lab over the next year. “We're very new so we don't have any postgraduate research students yet, but I think it's really important to have them in the lab. They bring a great sense of fun and enthusiasm – and they tend to ask difficult questions.”

As both research groups are moving towards therapies for breast cancers that are currently very difficult to treat effectively, many others could benefit too.

If the treatment proves successful – Dr Clarkson reckons they'll have an answer in about two years – they'll move on to clinical trials. And as TRAIL is already approved for clinical trials in other types of cancer, they won't have to contend with the usual red tape.

Just as Luke is wrapping up his PhD, another postgrad in the lab is starting out on hers. Funding from Cancer Research Wales has enabled Olivia Hayward, a pharmacy postgraduate, to spend the next three years investigating c-FLIP, with the aim of designing a drug that will inhibit it. She joins fellow PhD student Rhiannon French – funded by the MRC and the Sian Griffiths Memorial Fund – who is looking at how c-FLIP works inside the cell. As Olivia says: “It's highly novel research and very relevant and important, given that breast cancer affects around 50,000 women in the UK every year.”

TACKLING NEGATIVE TUMOURS

Finding a method that kills off breast cancer stem cells is a major coup, but it isn't the only groundbreaking research in this field taking place at the School of Biosciences. Another research group, headed up by Dr Matt Smalley of the European Cancer Stem Cell Research Institute, is investigating another potential breast

microscope,” he recalls, “but it had killed literally all the stem cells. We repeated it several times before we really believed it.” It was a big breakthrough, and there was more to come.

Luke also found that TRAIL can be used to kill the cancer stem cells in patients that have become resistant to tamoxifen, a drug commonly used to treat breast cancer. “This is particularly exciting because clinicians are crying out for a therapy that will treat relapsed patients,” explains Dr Clarkson. Currently, they can only call on very toxic therapeutics such as gamma irradiation and aggressive chemotherapies – TRAIL is far more gentle and it eliminates the stem cells. It's a kind of holy grail, really, for relapsed patients.”

The next stage of the research, then, is to test these breakthroughs on cancer cells taken directly from patients (up to now they've been working with tumour cells grown in the lab). Thanks to funding from the Breast Cancer Campaign (BCC), Luke will stay on at Cardiff University as a postdoctoral researcher and, in collaboration with the Cardiff School of Pharmacy & Pharmaceutical Sciences and Llandough Hospital's Breast Centre, will use cells taken directly from patient biopsies. It's about as close as you can get to treating the actual patients.

all happened at once. I'm lucky that my coach and my supervisor have been so supportive and made it all possible. And I've learnt to be much more efficient with my time!”

A SURPRISE RESULT

Luke's first breakthrough was finding a way to kill breast cancer stem cells. To understand the significance of this, it's necessary to know a little about the biology of breast cancer – so here, as they say, comes the science bit.

Breast cancer, like all cancer tumours, is a complex growth with a mix of different cells and tissue types. The current thinking in cancer biology is that a tiny minority of these cells – about 1% – is the pernicious part of the tumour, able to establish new growth and hence spread the disease around the body or cause a treated tumour to regrow. In short, they're the cells that are likely to kill the patient and they're resistant to existing therapies.

Luke was testing TRAIL, a naturally occurring anti-cancer drug that hadn't been tried against breast cancer, for his PhD research. In the course of this, he found that by combining TRAIL with a substance to suppress a gene called c-FLIP, which effectively instructs cells to ignore TRAIL, he killed off all the stem cells in the sample. “I was doing it as a side experiment and I expected to see these cells moving under the

Above and centre: Luke Piggott in the lab and on the ice. Right: Dr Richard Clarkson

Luke Piggott, a PhD student based in the School of Biosciences, is proving a little elusive. He has played a leading role in the breast cancer research breakthroughs achieved in Dr Richard Clarkson's lab, so I'm keen to talk to him about the group's next project. Everyone has been impressively efficient in responding to my requests for interviews, but not Luke.

Then, while Dr Clarkson is very patiently putting his lab's complex work into context for me, I find out why Luke has had other things on his mind. After breaking off to take a phone call from his student, Dr Clarkson explains: “It's a big day for him – he's handing his PhD thesis in.” That'll explain it, then.

Luke has, in fact, had something of a run of big days over the course of his PhD. Not only has he notched up two significant research breakthroughs, he's also established himself as a professional ice hockey player for the Cardiff Devils. “It's a pretty unusual situation and can be demanding at times,” he admits (after handing his thesis in). “I have very long days, but the ice hockey is a great release for me and I find it actually helps me focus on my research.”

“The last few years have been surreal – things I never thought I'd achieve have

network news



Welcome to the Cardiff Network. I hope that you've all had a good year and that if you were in the UK you enjoyed a summer full of celebration – with both the Queen's Jubilee and the amazing London 2012 Olympics. For those of you overseas I hope that seeing both of these events reminded you of happy times spent in the UK, and in Cardiff in particular.

Congratulations to all of our alumni who helped make the summer of 2012 such a success.

You will have noticed this year that we have greatly improved our website and our electronic communications with you. The regular CardiffConnect email newsletter goes to all of you who we have an email address for. If you are currently missing out, please contact us at alumni@cardiff.ac.uk and we'll add you to the mailing list.

Increasingly, we are also sending School specific newsletters out, so again, don't miss out on your copy. Record numbers of you have joined our LinkedIn Group this year – thank you for that – and I hope that you find it a useful network for your business.

Talking of which, if you would be interested in utilising the fantastic student talent that we have here in Cardiff to help in your workplace, we have launched the Alumni Mentoring and Placements Scheme. Details can be found on our website if you would like to register your interest – visit www.cardiff.ac.uk/alumni/amp. You can also follow us on Twitter @CardiffAlumni or join us on Facebook. If you are on Twitter yourself, let us know and we'll follow you – and re-Tweet any successes you have along the way to all our followers.

Wherever you are, stay in touch – and do keep us up-to-date with your news – you might even find yourself in a future issue of the Cardiff University Magazine!

With my very best wishes to you all,

Sarah Price
Deputy Director of Development & Alumni Relations Division



Adrian Dilkes

MA Music, 1987

Alumni Adrian Dilkes, who teaches Year 6 children at Bryn Coch Primary School in Mold, added two music tracks to the *Times Educational Supplement* website in August. The site can be accessed by more than two million educational professionals in 197 countries. The songs have since been downloaded over 6,000 times by educational professionals around the world.

"I have been teaching, performing, conducting and arranging music for children for many years," says Adrian, "but I was delighted to have such a great response to the two songs. I am delighted that my music is appreciated by other teachers and being used around the world, one of the songs has even been performed in a school in Italy!"

"From this response I am now in the process of setting up my own website – www.primarysongs.co.uk – which will provide instantly downloadable songs and I am aiming to go live sometime in the new year."

To access the songs, take a look at the website www.tes.co.uk and search for musicbyadrian



Nick Gough

BSc Economics,
MSc International Relations, 2008

Described by actress Joanna Lumley as "inspired lunacy with a heart of gold and the mind of Aristotle", ex-Cardiff student Nick Gough and his friend Rich Sear's trip around the world in an open-sided tuk-tuk is probably among the more bizarre endeavours attempted by a University alumnus.

The tuk-tuk is currently hogging the slow lane somewhere between Cairo and Cape Town, but the idea first came to the two friends as they commuted from London to Guildford each day to teach. They realised that, by combining a round the world trip with the aims of their charity – the Tuk Tuk Educational Trust – they could also help get children in developing countries into school.

Nick (above left), who gained a BSc in Economics and an MSc in International Relations at Cardiff, said they were fully aware of the challenges ahead: "We're open to the elements, but with the nature of the vehicle

we're more likely to meet people. This has already happened in places like Slovenia and Albania, beautiful countries where we met some fantastic people along the way."

Although originally developed in Italy, variations of the tuk-tuk are now used around the world, particularly in developing countries, where they're used as taxis, to deliver produce and as family vehicles.

It was with this in mind that Nick and Rich decided this unassuming three-wheeler would be perfect to get them around the world. "So much of the world relies on these vehicles," said Nick, "that we thought it would be pretty inclusive to travel by this method of transport. It also means that, when the inevitable happens and we break down, there's likely to be someone nearby who can help out!"

Find out how Nick and Rich are doing by taking a look at www.tuktuktravels.com

Ben Kangwa

MA Journalism
Studies, 1994

With 25 years of experience with the Zambia National Broadcasting Corporation – including interviewing all 11 candidates on television for the 2001 presidential elections and presenting *Business Review* for 12 years – Ben Kangwa proved a natural choice to represent Zambia's interests around the world.

This he did by becoming First Press Secretary at the Zambian Embassy in Washington DC in 2007, before rising through the ranks to his current position of Deputy Chief of Mission.

Since moving to the US, Ben has served under three presidents of Zambia, representing his country in relations with Central American countries such as Haiti and El Salvador, international institutions such as the World Bank Group and International Monetary Fund, and the Zambian High Commission in Canada.

Ben counsels serving press secretaries in various Zambian missions abroad to ensure they devote their time to preparing ambassadors for hostile questioning.

"The press is not something one can control, but it can turn out to be something very helpful in one's day-to-day work. It is important to know how the press works, not only in one's own country, but in the country of representation. In this regard, a positive attitude to the host country is always paramount," he said.



Ed Green

BSc, MArch, MPhil and PhD

The recession has forced many families to rethink their house moving plans. One solution has been to develop underused parts of the house, such as the attic, garage or basement, to increase the amount of living space available.

But an award-winning design by Cardiff School of Architecture alumnus Ed Green has taken this idea one step further. Using the storage containers that are usually seen balanced on the top of huge oceangoing ships, Ed has come up with S,M,L (Stacking, Modular, Lifetime), a sustainable and self-energising solution to the housing needs of the future.

“These containers are only £2,000 each,” says Ed. “They can be converted to habitable connecting pods away from the final building site. This means that tradesmen get to work in far more comfortable conditions as they can avoid the vagaries of the weather.”

In September, S,M,L beat 250 other entries to win The Sunday Times British Homes Award.

The design will now be realised for the 2013 Ideal Home Exhibition, held at Earl’s Court in London and visited annually by over 250,000 proud homeowners. The completed house will then be moved to the BRE Innovation Park near Watford, to be seen by building consultants, housing experts and representatives from housing associations up and down the land.

Ed has worked at Cardiff-based practice Pentan Partnership since finishing his PhD at Cardiff University in 2003, and the company has built up a reputation through their work with local authorities.

“Four housing associations have already approached us about these houses, and hopefully this will increase after the show house is developed for the exhibitions. After the containers are adapted off site, a zero-carbon S,M,L house, big enough for a family of five, can be interconnected, weatherproofed and inhabited in just a month, and all for around £100,000.”



Ed Green’s S,M,L design means that adding an extra room to your home has never been easier!



Michael von Bertele

Cardiff School of Medicine, 1974-79

Director General of the Army Medical Services Michael von Bertele’s retirement from the forces was marked with a portrait at the Royal Military Academy Sandhurst in Surrey.

The portrait, by Cardiff-based artist David Griffiths, was unveiled in October and marks the Director General’s official retirement from the Royal Army Medical Corps. It will hang alongside portraits of 40 previous director generals at the Former Army Staff College at Sandhurst.

After leaving Cardiff with a degree in Medicine in 1979, Michael served in the Falklands, the Balkans and the Gulf, and led exercises and training as far afield as Brunei and Nepal.

As the first medical officer into Port Stanley after the Argentinian invasion of the Falklands, he describes his experiences as: “the moment that convinced me that my job was worthwhile.” He spent two weeks on the surgical team in Ajax Bay, treating British and Argentinian casualties.

In 1993 he received an OBE for his work with the UN during the war in Croatia, and in 2012 was made a Companion of the Bath (CB) in the Queen’s Birthday Honours.

Of the painting, he said: “The portrait is outstanding, almost unsettling: it is like looking in a mirror. But I feel privileged to have been honoured in this way by my corps.”



Zena en route from John O’Groats to Land’s End. Below, Zena’s son Keir, and post ordeal

Zena Brenchley

MOrth and MScD, 1990-93

John O’Groats to Land’s End... a phrase that’s burned into the psyche of many a fitness fanatic or hardcore fundraiser. However, Zena Brenchley, has taken this well-worn route one step, well, one pedal of the wheels, further.

After cycling from one end of the country to the other in 2010, Zena mentioned to her husband Ian that she was still feeling fairly fresh and could probably have cycled further. Jokingly, Ian suggested that next time she could turn around and do the whole thing again.

This is of course what Zena then decided to do, and in August 2012 completed the gruelling 1,779 mile round trip in just 15 days, raising £3,800 for children’s charities as she went.

Zena and Ian, who are partners at Torrington Dental Practice in north Devon, have helped raise over £50,000 for children’s charities since they opened 15 years ago, much inspired by their son Keir, who has Down’s syndrome.

Zena says she really enjoyed the 15-day slog, although it’s Ian who tells me what she really went through: “Zena’s legs were fine on the second leg, but unfortunately she lost all the feeling in her left hand, not great when you’ve got to change gears with both hands – she had to lean over and change gears with her right hand for much of the return leg!”



Portrait by artist David Griffiths hung at Sandhurst



Anni winning the Crown at the 2012 Eisteddfod

Anni Llŷn Parri

BA, MA, 2009-11

"After studying Welsh for my degree at Cardiff I took up an MA with a creative writing element. This included writing a short novel of 12,000 to 15,000 words," said Anni. "The theme for last year's prose section of the Eisteddfod was Egin [Shoots], which, after a bit of rewriting, fitted in with what I'd written for my master's."

Anni's crown-winning prose (an excerpt of which can be read on the right), is set in a world where some people are incapable of imagining, while others are imagination thieves. "I'd not written something of this length before, it's pretty complicated getting the plot together, so much so that I'd sometimes be surrounded by pieces of paper, trying to work the plot out"

The Urdd Eisteddfod is one of Europe's largest youth festivals, attracting over 100,000 visitors and 15,000 competitors annually. Last year's event was held in Snowdonia, close to where Anni grew up at Sarn Mellteyrn.

"I've always been involved in the Eisteddfod – reciting or singing – so having the festival in my home area made it pretty special for me, and as I'll soon be too old to enter a youth festival I'm really proud to have won the crown for prose."

Anni was offered a job at S4C when she was doing her master's, and now presents *Stunsh*, which is on every weekday evening. "It's great to work on children's television, it's very creative and gives us a chance to be silly!"

Mychlogyd

Mae 'na lefydd sy'n bodoli na fedar neb eu cyrraedd heb ddefnyddio ychydig bach o ddychymyg. Yn y llefydd hynny maer hud a lledrith 'na y clywsoch chi sôn amdano pan oeddach chi'n blant yn digwydd. Lle tebyg iawn ydi Mychlogyd. Mae hi'n anodd ofnuadwy cyrraedd y pentra bach diflas, di-nod, di-ddychymyg. Ond mae hi'n anoddach byth ffeindio'ch ffordd o'na. Mae 'na fryniau yng ngheseiliau ei gilydd o amgylch coed trwchus crafanglyd yn cau am y pentra nes bron iawn a'i ffigu. Ym Mychlogyd, dach chi'n gweld, maer rheini sydd wedi disgyn o'r nunlla dychmygol yn byu. Y rheini sy'n bodoli ond ddim yn bod dim ond pan fydd 'na bobol eraill, o du allan i Fychlogyd, yn meddwl amdany'n nhw. Un o'r bobol eraill 'na ydw i.

Am rwan, does gen i ddim lliw llygaid, na lliw gwallt. Does gen i ddim siâp i fy nhrwyn na thaldra. Does gen i ddim chwerthiniad unigryw nac ogle gwahanol. Does gen i ddim enu. Ond mae gen i ddau beth; y gallu a'r gwybod. Dwi'n gallu gweld y stori'n digwydd, dwi'n gallu teimlo fy nghymeriadau, er nad ydwi'n eu nabod nhw...

...a dwi'n gwybod y ffordd i Fychlogyd.

Ac yn fano yr oeddwni'n prysur ym gartrefu wrth y burdd, a phryfyn yn cerdded yn araf ar ei hyd. Roeddwni'n dod i ddiwedd fy mheint, a thrwy waelod y gwyrdd humnu yr oeddwn i'n gallu gweld y stori'n dechrau. Stori a fu bron a bod yn ddiwedd ar fy ngallu a fy ngwybod. Stori a fu'n raff am wddf fy nychymyg.



Rhys Jones

BSc, MPhil, PhD

Although he suffers from severe dyslexia and didn't enjoy school, a childhood spent gazing in awe at the animal exhibits at Cardiff Museum set Rhys Jones in good stead for his eventual career.

"I was told at school that I'd be stacking shelves at Tesco," said Rhys. "I got into the pet trade and worked as a bouncer, but then decided I wanted to go into academia."

Although he left school with no qualifications, Rhys approached Cardiff University and was awarded a grant to fund a foundation year in physics, chemistry and maths. Next came a degree in zoology and genetics, a Master of Philosophy in medical molecular

entomology and a PhD in molecular evolution, where Rhys specialised in herpetology and parasitology.

A talk at the Natural History Society was followed by a stint on Iolo William's *Welsh Safari* show, before Rhys joined Chris Packham for *Nature's Calendar*. Rhys now presents *Rhys to the Rescue* on BBC Wales, which gives him the chance to work with some of Wales's wildest animals, including his greatest passion: snakes.

"I just fell in love with them. It's easy to make them out to be evil, nasty creatures but if you look at the bigger picture, they're incredible survivors," he says.





Medicine man

Dr Graham March
Chairman, Special Products Ltd
BPharm (1967)
PhD (1974)

“I thought I was entering heaven when I first went to Cardiff in 1964,” says Graham March. “The clean white buildings, red roads, open spaces, it was like being in Washington DC! I really couldn’t believe how different it was from Birmingham, which was still a very industrial city and very quiet after dark.”

The young Graham March was similarly impressed with the new School of Pharmacy building and the facilities the University offered, although the Dean quickly reminded the students not to rest on their laurels.

“There were 35 in our class, and he said they had space for 25 next year as there were only that many microbiological cabinets to go round. I was fairly self-sufficient for my age so I knew I had to work hard to survive. I made up my mind in that first week that I’d stay in the top five throughout the course!”

Graham stayed on after his degree to take a PhD: “Studying for my PhD at Cardiff gave me the ability to think independently and logically which, looking back, was the passport to credibility and responsibility.”

Moving with the times

Graham’s long and varied career as a registered pharmacist has taken him through the private and public sectors, and ultimately led to him founding Special Products Ltd., a company that develops and distributes unlicensed medicines prescribed for conditions found in small populations of children.

But it was a chance meeting with a consultant while Graham was controlling the quality of medicines produced at Great Ormond Street Hospital in London that changed the course of Graham’s professional life for ever.

“I was sitting in the refectory having a

cup of coffee when a consultant came and sat down with me, which was pretty unusual as they generally kept their own company. He said they were having trouble getting babies to take the laboratory grade chemicals necessary for them to survive inherited metabolic diseases, but had heard that there’d been some success in the USA by making the chemicals more palatable. Once I’d had a look at the chemical he was talking about I knew instantly what the problem was. It was bitter and smelled awful! Babies and young children would not swallow it at all.”

Graham developed a palatable liquid from the chemical that the children found easier to take. He also formulated an injection for children in a critical condition who were vomiting so severely that they were unable to take medicines orally until the condition was under control.

“Babies in dire need of medical help started surviving their first few days as they were able to take what essentially looked like normal medicines, rather than hospital-developed powders that they couldn’t stand. Children with certain life-threatening illnesses were doing so well they were then able to go home. They even lived long enough to be able to take the tablets that I developed for them.

“It was then that I realised I could set up a company that developed these sorts of drugs – medicines for people with niche diseases.

For instance there might only be five people in the country that needed them. The original brief I worked out with Great Ormond Street was that I’d continue to develop whatever they needed for their patients, no matter how few people actually needed the medicine.”

Since the company was founded in 1997, Graham and colleagues have gone on to develop 55 ‘specials’ for a targeted range of therapeutic areas. These mainly involve liquids for children with rare diseases and tablets for older children and adults. The company’s products are now used in children’s hospitals throughout the UK and also overseas.

“We now employ 40 people in Surrey, and have just opened a subsidiary company in Dubai to accommodate the growing market

“Studying for my PhD at Cardiff gave me the ability to think independently and logically which, looking back, was the passport to credibility and responsibility”

for ‘specials’ in the Middle East. We’ve tried before to grow beyond UK borders but I’ve learned that you need to build a critical mass of sales by distributing products from the UK rather than spending lots of money setting up a speculative company overseas. Our Dubai sales office reached that level earlier this year and is now thriving as an independent company.”



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