

L&HS

Newsletter

June 2011

Faculty of Life and Health Sciences



Editorial

The Engaged Faculty

As a Faculty we not only strive for excellence in an environment where knowledge and skills are taught and generated but are also used for the benefit of society and the economy. In this issue of the Faculty Newsletter, we recognise and celebrate the contribution that Business, Community, Civic and Public Engagement is making to the Faculty's core business of teaching and research. A number of important themes are developed including graduate employability, research impact, income generating opportunities and diversity of partnership organisations.

According to the UK Graduate Career survey, 2010, '.. just 36% of those finishing undergraduate degrees this summer expect to find a graduate job after university ..'. To build on existing good practice in embedding employability skills within the curriculum, the Faculty (with the support of Connected 2 funds), has involved all schools in running a knowledge transfer event 'Getting the Edge' to build and strengthen existing relationships with key employers.

A 20% contribution of research impact within REF and a single statement of expectations and responsibilities of research funders in the UK within the December 2010 Concordat for Engaging the Public with Research serves as a timely reminder of the importance on 'maximising impact'. Whilst this does mean commercialisation of innovative research activity as evidenced in Biomedical Sciences and Environmental Sciences, it is the impact on policy and practice, not least in health care services, which is even more important to the Faculty.

Through the projects highlighted, we draw attention to a number of grant awarding knowledge transfer (FUSION, Innovation Vouchers and Knowledge Transfer Partnerships) and research related (EU PEACE III Programme, EU Research for SMEs and Proof of Concept) programmes. In addition, the opportunities for offering consultancy and contract research services, using our expertise and state-of-the-art facilities, and delivering workshops and other forms of continuing professional development are illustrated.

The Faculty is characterised by its diversity of engagements with partnership organisations. From Action for Children, a leading voluntary organisation in Great Britain, and the Taiwan Nurses Association, to 18 Borough Council Areas in Northern Ireland on a series of sport, good relations and integration programmes. From Disability Needs Ltd and Norbrook Laboratories to Geopii, the Faculty-led technology transfer company, which has completed its final transition and spin-out from the University.

The Faculty recognises that good leadership in Research and Development and Teaching and Learning involves significant elements of engagement. We will continue to be 'The Engaged Faculty'.



Peter Mitchell
Faculty Coordinator of Academic Enterprise

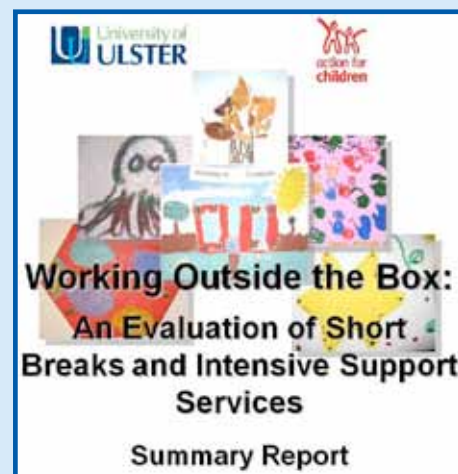
Evaluating New Styles of Family Support Services

Action for Children is a leading voluntary organisation in Great Britain in the provision of family support services, especially to parents who have children with severe disabilities. In 2010, they commissioned Professor Roy McConkey from the Institute of Nursing Research to undertake an independent evaluation of three of their services in Edinburgh, Glasgow and Cardiff. Uniquely these services combine overnight breaks with intensive support to families in home and community settings. In all information was obtained on 123 young people and families who use the services or had done so in the previous two years. Ratings were also made by key-workers of changes in the children and families over a six-month period. In addition 44 individual interviews were undertaken with the main stakeholders who were personally involved with a selected sample of 17 children – the primary carer; the service key-

worker and a representative from the partnering agencies, such as a social worker.

With support from these services, the children developed a range of skills which helped to reduce their challenging behaviours. The young people had increased opportunities for participating in community activities - a major achievement given their challenging behaviours. However, their social inclusion remained limited compared to their non-disabled peers. Parents benefited when their support needs were identified and trusted relationships forged. Merely providing a break was insufficient to help reduce the stresses they experience. The expertise and experience of staff means they are well suited to advise and train others, such as parents or staff in other services.

A detailed service model was defined that Action for Children will use nationally to inform commissioning of similar services. Strong partnerships with commissioners and other service providers are key to providing co-ordinated and effective packages of support to families.



Cover of the Final report featuring Children's art work.

Productive Relationship with Universities in Taiwan



Professor Parahoo and Professor Lian-Hua Huang

The School of Nursing and the Institute of Nursing Research have enjoyed a long and productive relationship with researchers at a number of Universities in Taiwan. This relationship was reinforced recently by the invitation by the Taiwan Nurses Association (TNA) to Professor Kader Parahoo to conduct writing skills workshops at four universities in Taiwan. Professor Parahoo was presented with a statuette of Florence Nightingale by the President of the TNA, Professor Lian-Hua Huang.

Developing Primary Communities of Scientific Enquiry

(Prof Valerie McKelvey-Martin (PI), Dr Linda Clarke, Lynda Dunlop, Kirsty Compton)

This project, funded by the AstraZeneca Science Teaching Trust, is designed to support P6 and P7 teachers to teach science through facilitating questioning and enquiry through practical work. Building confidence in teachers across Northern Ireland, to inspire and engage students with science, developing confidence, self-esteem and scientific enquiry skills in primary school children, hosting a Primary Science Teacher Workshop for training and sharing of resources, plus an Enquiry Day for participating pupils, are all key features of the project. For further information please visit www.ulster.ac.uk/scienceinsociety/



Disability Needs KTP

University of Ulster and Disability Needs Ltd recently appointed David Gullifer an Occupational Therapist as a KTP associate on a two year project starting November 2010. Disability Needs are suppliers of a wide range of equipment for disabled people, and in conjunction with a local manufacturer, are now producing their own line of disabled access shower trays. David's

two year project is to provide input to the design, manufacturing and marketing process for the new disabled shower tray range. This will be based on clinical knowledge, internal company audits, and industry analysis. The academic supervisors are Dr Suzanne Martin from School of Health Sciences, and Brendan Galbraith, from the Ulster Business School.



David Gullifer

Sport Integration and Education

The Ulster Sports Academy has designed and managed the delivery of a series of sport, good relations and integration programmes throughout 18 of the council areas in N.Ireland, under the theme of 'sport integration and education.'

Within each council area a research study was conducted to assess the needs and enable the staff within the School of Sport to design bespoke training programmes specific to the needs in each community. This included various short course modules, residentials, conferences and community engagement activities.

Each programme focus varied according to the findings of the research study using sport as an

engagement tool and medium to address various local issues such as community leadership, youth leaders and ethnic minority inclusion.

During the year the programme has involved working in primary schools, secondary schools, colleges, businesses, community groups and sports clubs.

The programme has left a lasting legacy through the design of a research model of best practice, the creation of an accredited CPPD course in Good Relations and Integration through Sport and Physical Activity and the development of workbooks for the delivery of sport and good relations programmes in schools.

This programme has enabled the Sports Academy to engage with the community through sport and use the academic expertise within the university to find practical solutions to current issues, opening the university to those who would not normally have access.

This programme was supported by the EU PEACE III Programme and was granted the Inspire Mark, the badge of the London 2012 Inspire Programme. The London 2012 Inspire programme recognises innovative and exceptional projects that are directly inspired by the 2012 Olympic and Paralympic Games.



Diversity of Academic Enterprise Achievements

The Biomedical Sciences Research Institute continues its active engagement in the technology transfer process, with the Office of Innovation, as evidenced by:

- 6 completed Proof of Principle projects in 2010, 1 soon to complete and 3 starting up, covering biomarkers (C.difficile, pre-diabetes), diagnosis (personalised medicine, shRNA), delivery (medical suppository) and treatment (diabetes, obesity, osteoporosis)
- 4 completed Proof of Concept projects in 2010, 1 soon to complete and 1 starting up, covering biomarker (glycated insulin), diagnosis (personalised medicine, shRNA) and treatment (diabetes, Alzheimer's disease)



Professors Neville McClenaghan, James Haughey and Tony Bjourson

Nutrition researchers, using the Human Intervention Study Unit core facility, attracted 60% of the £811,033 of the industry linked research awards for the Research Institute in 2010.

Innovation Voucher projects have made an important contribution to School consultancy, with 8 completed projects since January 2010. Whilst infection control was the major area for knowledge transfer, industrial applications requiring expertise in shelf life, nanoparticles and single cell oil have also been addressed.

Following establishment of an exciting new partnership with Norbrook Laboratories Limited, Biomedical Sciences was delighted to announce in December the appointment of The Honourable Dr James Haughey as a Visiting Professor. Professor Haughey has been working closely with the Head of School and Institute Director to drive forward a number of new initiatives, enriching the evolving engagement with national and international bio-industry.

World Class Core Facilities for Engagement

The Biomedical Sciences Research Institute has recently reorganized its diverse range of state-of-the-art equipment, specialist laboratories, and infrastructure into a number of cost-effective, sustainable Core Facility Units which can offer clinical and translational research services to Academic Researchers and Business. Each Core Facility Unit is coordinated by Academic and Technical Champions, who provide internal and Life and Health Technologies Sector gateways to the services of highly-skilled, dedicated teams, on a consultancy or contract research basis. The core facilities provide centralized resources including:



- Advanced bio-imaging/microscopy laboratories;
- Bioinformatics and computational biology;
- Genomics research laboratories;
- Mass spectrometric and Nuclear Magnetic Resonance analysis;
- Facilities for use and storage of mammalian cells and tissues;
- Facilities for clinical research and human intervention studies/trials;
- Facilities for in vivo studies;
- Facilities for pharmaceutical research; and
- Facilities for vision research studies.

FUSION Forges Innovative Long-Term Partnership



A recommendation and reputation for high impact nutrition research in 2005 has since resulted in over £500k research and £50k consultancy income for the Northern Ireland Centre Food and Health (NICHE) (based within BMS) through ongoing collaborations with CyberColloids Ltd., a Cork-based knowledge company focusing on natural polymers with food applications, bringing technology and business together. NICHE became a valued partner when Cybercolloids sought the addition of health as a strategic priority for its food applications' capability.

The InterTrade Ireland FUSION programme provided an ideal first step embedding a functional foods capability, based on edible seaweeds, within the company. Championed by Dr

Chris Gill, and supported by Professor Ian Rowland and Peter Mitchell, the deliverables and outputs including publications were highly significant, providing a sound basis for further development via a FP7 application which resulted in an EU Research for SMEs, "Hydrocolloid Derivatives as Functional Food ingredients" (HYFFI) Project award.

Six years on the School has an impressive FUSION track record of 11 successfully completed projects, 5 in progress and 2 starting up. The latest development in the partnership with CyberColloids was an EU Research for SMEs, "Seaweed derived anti-inflammatory agents and antioxidants" (SWAFAX) Project award, including dissemination event in June 2011, which further stimulates interest from other parts of the global food industry.

Connected—The Knowledge Connection Business

The Faculty's *Connected* project: 'Employability Skills Development in Life and Health Sciences: Raising staff awareness of Sector requirements and increasing staff/student employer engagement', has involved most schools in the faculty running a knowledge transfer 'Getting the Edge' event to build new and strengthen existing relationships with key employers. The focus of the Faculty's *Connected* project, delivered by the Public Engagement Working Group (PEWG), led by Professor Valerie McKelvey-Martin, has been to explore employability requirements for the Life and Health Sciences Sector.

The Health Sciences and Nursing event, 'Patient and Carer Experience and Engagement Workshop', aimed at increasing Allied Health Professions and Nursing student employability by embedding Patient and Public Involvement (PPI) within the education provision at Ulster. PPI has gained profile and importance strategically and for the operational delivery of Healthcare.

The Biomedical Sciences Employability Event stressed that the expectations of today's food, nutrition and bioscience graduates for a level of change and advancement in their careers was effectively illustrated through the career profiles presented by the alumni. The importance of gaining higher level qualifications to fit the proactive management of a career as a scientist, knowledge service provider or manager was highlighted. Placement and post placement presentations, and Professional Practice modules, developed with employer input, were highlighted as strengths in the preparation of students for employment.



(Left to right) : Suzanne Martin, Jessie Cunnett and Patricia Gillen at the Nursing and Health Sciences Employability Event.

The School of Sports Studies one day 'Getting the Edge' conference aimed to facilitate staff, student and employer engagement on the issue of employability.

A number of employers joined Sports Studies staff in round table discussions on identifying key employability skills and how academic provision at Ulster might address these skills. The day provided opportunities for staff to build new and strengthen existing relationships with key employers, many of whom are alumni.

Information on the employability event organised by the School of Psychology can be obtained from Professor Gary Adamson, Magee Campus.

Faculty Technology Transfer Company Spins Out

Geopii, a Life and Health Sciences led technology transfer company, has taken a major step forward and completed its final transition and spin-out from the University. The Company, formed in 1998 and formerly known as Causeway Data Communications Ltd., specializes in Geographic Information Systems (GIS) based software development and consultancy services for the public and private property appraisal industry.

In 2005, the company created and successfully launched the first GIS-based property analysis toolset 'spatialst®' for the global public sector taxation market. The unique IP was awarded a US patent in 2007. Having successfully sold the product globally its success was further underpinned with a licensing agreement with the world's largest public sector Mass Appraisal Company, Tyler Technologies, Dallas TX in May 2009. The Company's international client portfolio now has a net worth of over US\$100 Billion of property assets and the spatialst® valuation product generates billions of dollars in taxable revenue annually.

The recent funding round included a significant investment by Loughshore Investments, led by Mr. Danny Moore, a highly successful local business entrepreneur. Mr. Moore made the announcement at an Ireland Day summit at the New York Stock Exchange in March this year.

In addition to facilitating a move off-campus to new premises in Coleraine, this new investment has provided the company with the opportunity and resources to re-brand, extend its product offering and diversify into new sectoral and geographic markets. The new name 'geopii' is a hybrid of geographic and mathematic terminology designed to reflect the new market of 'Geo-Financial Analytics' in which the company now operates.

The new investment round presented a perfect opportunity for the University to relinquish its initial incubation equity investment in the company. The sale of all of the University's equity in geopii therefore represents the successful completion of the



Left to right Danny Moore, Loughshore Investments, Ashley Moore, Managing Director geopii, Ian Lamont Director, geopii and Prof. Adrian Moore, School of Environmental Sciences and Director geopii.

University's Technology Transfer mission – targeting applied R&D into company incubation and initial development and ultimately leading to independent company spin-out.

For more information visit www.geopii.com

café scientifique

DERRYLONDONDERRY



Café Scientifique Derry~Londonderry is a collaborative initiative between staff in the Faculty of Life and Health Sciences and the Office of Innovation. The project has received funding from Derry City Council. The aim of Café Scientifique is to enable scientists and researchers to share their ideas and research outcomes with the wider public in an informal setting. Audiences consist of people who are interested in science generally, but have never had the opportunity to discuss their views with, and ask questions of, someone "in the know". No scientific knowledge is assumed by the speakers, so everyone can participate and people of all ages are welcome.

The initiative was launched in December 2010 and is hosted at Café Artisan in Bishop Street. Psychologist and leader of the initiative, Dr Siobhan O'Neill says "Café Scientifique presents the public with a unique opportunity to learn about contemporary scientific research and hold debates with like minded people. Café Scientifique will be hosting some very exciting speakers in the coming months and those who are interested should follow developments through social networking sites such as Facebook and Twitter".

Follow @cafescientifique on twitter.com



Specialised Psychology Consultancy Services

Karen Kirby, Chartered Psychologist (BPS) and Registered Practitioner Psychologist (HPC), who is a Lecturer/Course Director from the School of Psychology, offers consultancy work to the Child and Adolescent Mental Health Service (CAMHS) and the Paediatric Psychology Service, within Western Health and Social Care Trust, one day per week. This work involves offering

a specialised psychology service to children, adolescents and their families for a range of psychological and emotional problems, ranging from moderate to severe and complex; some with additional physical health problems and learning difficulties. The Office of Innovation supports this work.

20th Research and Statistics Summer School

Magee campus,

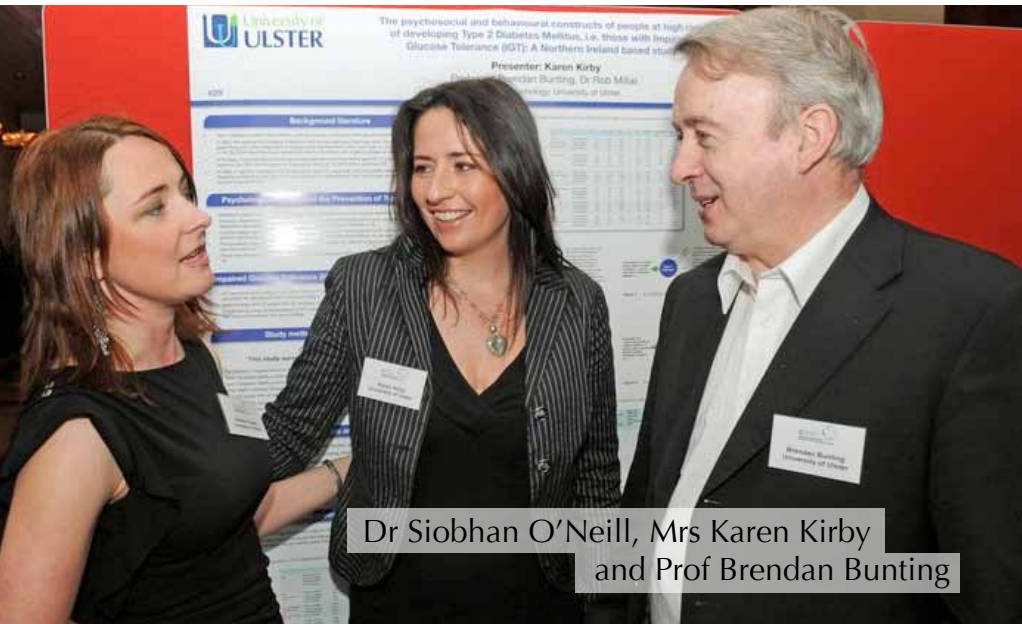
22 August – 2 September
2011

This two-week school on research methods, measurement and statistical analysis for the Behavioural and Social Sciences is offered by the School of Psychology, in association with the Measurement, Evaluation and Modelling Research Unit (MEMRU).

Past Research and Statistics Summer Schools have been attended by research staff and students from across the Faculty.

Please direct any queries regarding the Summer School to Dr Sam Murphy on (028) 7137 5416, Email: sd.murphy@ulster.ac.uk

For any queries regarding registration and other administrative matters contact Sharon Adams on (028) 9036 6680.



Dr Siobhan O'Neill, Mrs Karen Kirby and Prof Brendan Bunting

Health Economic Costs of Trauma

The Bamford Centre for Mental Health and Well-Being, in collaboration with the Northern Ireland Centre for Trauma and Transformation (NICTT), recently held a seminar entitled: "An investigation into the health economic costs of mental health needs associated with psychological trauma and the specific impact of the Troubles".

The seminar was led by Psychology Research Institute Professor Brendan Bunting and David Bolton, the Director of NICTT. The purpose of the event was for the research team to share and discuss the principal findings from their research into the health economic impact of psychological disorders associated with traumatic

experiences in Northern Ireland with key organisations and individuals interested in this field. The invited audience included several policy advisors, economists and mental health specialists.

In 2009 the research partnership between the Northern Ireland Centre for Trauma & Transformation and the Psychology Research Institute, University of Ulster, with support from the Lupina Foundation, Canada, began the investigation into the health economic costs of trauma, focusing on the impact of the Troubles. The work is now at an advanced stage and the results from the work will be formally launched in June 2011.

Applications for Connected 2 Funding

Up to £3300 has been allocated to the Faculty from Connected 2 funds to support one or more projects in the following areas:

- * Know-how and best practice acquisition
- * Staff training and development/exchanges
- * Innovation for Life and Health Sciences Sector Specific Projects

Faculty academic and research staff are invited to apply by 4pm on 30th June 2011 for funding of a project. The application form provides guidance on project selection criteria, and it can be obtained by emailing Peter Mitchell (pc.mitchell@ulster.ac.uk) or downloaded at the following link: <http://db.tt/TPQ26NG>