



# Research Matters

## Cúrsaí Taighde in Ollscoil na hÉireann, Gaillimh

### MOLECULAR DIAGNOSTICS FOCUS OF R&D COLLABORATION

Beckman Coulter Inc, a worldwide provider of biomedical testing systems, with the support of IDA Ireland, has launched an innovative four year collaborative research programme with NUI Galway in the field of Molecular Diagnostics. The new partnership will see Beckman Coulter work with the University's National Centre for Biomedical Engineering Science (NCBES) and the Microbiology Department, which is leading the research initiative.

Headquartered in California, Beckman Coulter is a leading manufacturer of biomedical testing instrument systems, tests and supplies that simplify and automate laboratory processes. The company's facility in Galway manufactures a wide range of chemistry, haematology and immunoassay reagent products used in conjunction with the company's diagnostic systems.

This is the first collaborative research project undertaken by Beckman Coulter in Ireland. The collaboration will involve the creation of a research team of ten Masters and PhD researchers based in NUI Galway and build on Intellectual Property already developed in the University.

"This is a very significant research collaboration for both NUI Galway and Beckman Coulter, in that it leverages the combined diagnostics test and instrumentation capabilities of both partners resulting in the development of breakthrough technologies for the diagnosis of infectious diseases in humans. These partnership agreements also validate the infectious disease molecular diagnostics test R&D being carried out at NUI Galway, highlighting our world-leadership in this area," said



Professor Terry Smith, Director of the NCBES, and Molecular Diagnostics Programme Director.

The announcement was made by Minister for Enterprise, Trade and Employment, Micheál Martin T.D., on a visit to the campus. Welcoming the ground breaking collaboration, Minister Martin said the Government and IDA Ireland were working to establish Ireland as a world class strategic location for research and development and to foster novel approaches to R&D through innovative investments and industry academic partnerships. He pointed out that in supporting this complex industrial research programme between Beckman Coulter and NUI Galway, IDA Ireland was building on historic research in NUI Galway which was funded by Enterprise Ireland.

Mike Whelan, Group Vice President of Beckman Coulter's High Sensitivity Testing group said, "With these agreements, we will take a big step toward the launch our 'sample-to-result' molecular diagnostic system, including a differentiated menu of moderately complex tests

that address urgent clinical decisions. The agreements give us access to intellectual property for the development of tests for infectious diseases including sepsis, hospital-acquired infections, and sexually transmitted diseases."

Molecular Diagnostics is a major growth sector in the diagnostics industry and has a market potential of \$2bn annually. The combination of NUI Galway technologies with Beckman Coulter's provides a glimpse of the next generation of molecular diagnostics. The goal is that simplified, automated, solutions will allow time-consuming, complex, and labour-intensive tests to migrate into the routine hospital lab. The result would be physicians being able to begin treating patients much more quickly by getting diagnostic information within hours, instead of days or weeks.

Professor Terry Smith, Director, NCBES; Professor Nicholas Canny, Vice-President for Research; Minister Micheál Martin T.D.; Dr. Iognáid Ó Muircheartaigh, President (at time of launch), NUI Galway; Mike Whelan, Group Vice-President of Beckman Coulter's High Sensitivity Testing Group; and Professor Jim Browne, newly appointed President, NUI Galway.

#### RESEARCH MATTERS

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# Message from the Vice-President for Research



This Message usually lauds recent accomplishments but in this, my last communication as Vice-President, I allude also to three deficits that may hinder further success in the research domain.

During the last frenetic year, researchers at NUI

Galway did well on a broad range of fronts including in PRTL14 where the University secured more recurrent funding than any competitor. This year should bring even greater success with all government funding agencies having more money to disburse than previously, with Framework 7 in full flow, with industrial linkages producing significant research investments, and with individual government departments and philanthropy supporting a range of research activities. The combination of achievements to date, and those in prospect, warrant congratulations to the researchers, and to the dedicated support staff of this and related offices, who have enabled a major boost to institutional research income. However, success has exposed shortcomings in our support provisions. The first is a major lack of dedicated research space which means that further expansion of research activity, in the Humanities and Social Sciences no less than in laboratory-based disciplines, will be impossible unless adequate space is targeted. Our application to the HEA under their refurbishment scheme, and PRTL15 may improve our situation but it is now evident that money gleaned from exchequer sources will have to be augmented if we are to develop a University strategic plan for research infrastructure.

A second major problem is that the actual cost of accommodating and supporting research far exceeds the overhead provision made by funders. To date this problem has been addressed piecemeal, but plans are now in hand to identify a research support fund within each annual budget from which the university will knowingly provide grants to incentivize research activity and to compensate PIs for financial deficits.

The third problem is that research publication metrics from this university, and particularly those in high-impact outlets, do not match the research funding that has been raised. This deficit could obviously prove fatal to future grant applications and to remedy this, the Research Committee has formulated recommendations to encourage more and better publications from more staff and to promote more effective means of harvesting and reporting the publication outputs of our researchers. Hopefully my successor will persist with the plans identified to resolve these problems since they are necessary to secure the reputation of NUI Galway as a major research university.

Pictured: Professor Nicholas Canny, Vice-President for Research

## New Centre for Pain Research

NUI Galway has formally launched the Centre for Pain Research (CPR). CPR aims to provide a centre of excellence for interdisciplinary research between the University and colleagues in the health service with the aim of advancing the scientific understanding of pain from the basic sciences to the population level.

Chronic, persistent pain affects millions of people worldwide, significantly impairing health and well-being and is the most common symptom for which patients seek medical help. In Ireland, over half a million people suffer from chronic pain on a daily basis.

As Ireland's first dedicated centre for research into pain, the CPR incorporates researchers from a range

of disciplines and is organised into the following five clusters:

- Pre-clinical research
- Psychological and neuropsychological aspects of pain
- Pain treatment and pain management
- Population and policy aspects of pain
- Integration of pre-clinical pain research and clinical practice

Dr David Finn and Dr Brian McGuire, Joint Directors of the Centre said, "This is a very exciting and important development which puts Galway very firmly on the national and international pain research map."

To mark the launch, guest speakers included two internationally renowned experts in pain research.

Professor Chris Main, a clinical psychologist and author of several authoritative multidisciplinary pain management textbooks from the University of Keele, who gave a keynote address on 'Psychosocial Barriers to Effective Pain Management' and Professor Irene Tracey, a recognised leader in the neuroimaging of pain who leads the fMRI unit at University of Oxford, who spoke on 'Advances in Pain Neuroimaging'.

In the working population, lower back pain is responsible for more disability than cancer, heart disease, stroke and AIDS combined. One in six people in Ireland suffering from pain has lost a job because of their condition and pain costs the Irish economy over €1.2 million per week in disability benefit payments alone (Pain in Europe Study, 2003).

## Research Accounts

The research accounting office would like to highlight that information on all research accounting policies and procedures is available at: [http://www.nuigalway.ie/research\\_accounting/policies\\_procedures.html](http://www.nuigalway.ie/research_accounting/policies_procedures.html)

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# Focus on Science Outreach at NUI Galway



Science communication and outreach activities at NUI Galway engage diverse audiences to increase public awareness of, support for, and participation in science.

NUI Galway has a multi-disciplinary **Science and Society Research Team**, integrating perspectives from science communication, science education, marketing, and economics. The team includes members of the Regenerative Medicine Institute (REMEDI), Digital Enterprise Research Institute (DERI), the Applied Optics Group in the Department of Experimental Physics, the Environmental Change Institute (ECI), the Department of Marketing, and the School of Education.

## REMEDI

The **Regenerative Medicine Institute (REMEDI)**, a stem cell and gene therapy research centre based on NUI Galway campus, has been promoting science in the community by delivering a range of innovative and interactive outreach programmes in over 90 Galway city and county primary and secondary schools.

Led by Breda Kyne, Ready Set Bio!, REMEDI's primary school science programme, was launched in September 2005 to ensure early intervention in the education system. The programme, which involves interactive workshops facilitated by REMEDI personnel in the school classroom, has been fully booked each year and is recognised and supported by Discover Science & Engineering. The centre's secondary school programme GRO (Galway Region Outreach) consists of national essay and debating competitions as well as transition year placements.

## DERI

In another area of research at NUI Galway, that of Information Technology, the **Digital Enterprise Research Institute (DERI)** works to develop Semantic Web technologies. Since its inception in the summer of 2004, DERI Outreach has made it its primary objective to play a full and active role

**NUI Galway's Science and Society Research Team** work together on both a local and national level. In 2007, the team led the first national annual conference on science communication, outreach and public engagement which took place at NUI Galway. It was organised by Drs Christine Domegan, Kevin Davison, Veronica McCauley, and Aidan Kane, from the departments of Marketing, Education, and Economics respectively, under the auspices of the Centre for Innovation and Structural Change (CISC).

Conference findings provided key insights into the importance of strategic focus, self-evaluation, and the incorporation of the principles of social marketing for successful communication and outreach programmes. The NUI Galway Science in Society research team will partner with Discover Science and Engineering (DSE) and 'STEPS to Engineering' to organise a further conference in May 2008 in Dublin.

in the development of an 'Online Galway City and County Accessible to All'.

DERI's Outreach programmes are organised by Brendan Smith in partnership with key local stakeholders. In July 2006, at a special DERI ceremony event for participants in community programmes, Éamon Ó Cuív T.D., Minister For Community, Rural and Gaeltacht Affairs stated, "Through its Outreach programmes, DERI is helping to promote social inclusion and to make the concept of 'Community' an even stronger reality in the world of the Internet".

## APPLIED OPTICS GROUP

The **Applied Optics Group**, which is part of the School of Physics NUI Galway, is a group of researchers whose focus is in the area of "Optics and the Eye". The Education Outreach Officer Emer McHugh works closely with researchers and teachers to design and develop learning initiatives to match the needs of the target group of students.

The Applied Optics Outreach Programme works with children at primary and secondary school level. There is huge enthusiasm and interest among primary school students in the Applied Optics programmes, providing activities that encourage their natural curiosity in the science of physics and how things work. For the Junior Cert programme, the Applied Optics Outreach Officer and researchers within the group took the curriculum for the junior cert exam and designed and taught the chapter on "light".

## ECI

At the **Environmental Change Institute (ECI)**, a significant effort is made to reach out into the community to promote environmental science and encourage positive environmental change.

The ECI Outreach Officer Sarah Knight has formed a number of collaborative projects, such as the intergenerational environmental education programme "The Digital Hedge School Project (DHSP)". Working with NUI Galway's Education Department and Brigit's Garden in Roscahill, Co. Galway, the DHSP incorporates an eight week transition-year programme for students from local secondary schools.

The ECI also reaches out into the adult community by organising public lectures, workshops, and conferences. In March 2007, for example, the ECI worked with Health Services Executive (HSE) west, to organise a two day conference on the environment and public health: 'New Horizons in Environmental Health'.

The ultimate aim of all of NUI Galway's science outreach programmes is to make young people and those who influence them, see science in a different light and to recognise that it is an ever changing dynamic and a fantastic career option. It is through education of young people, their parents, peers and educators, that the University can help foster positive attitudes towards science as a career.

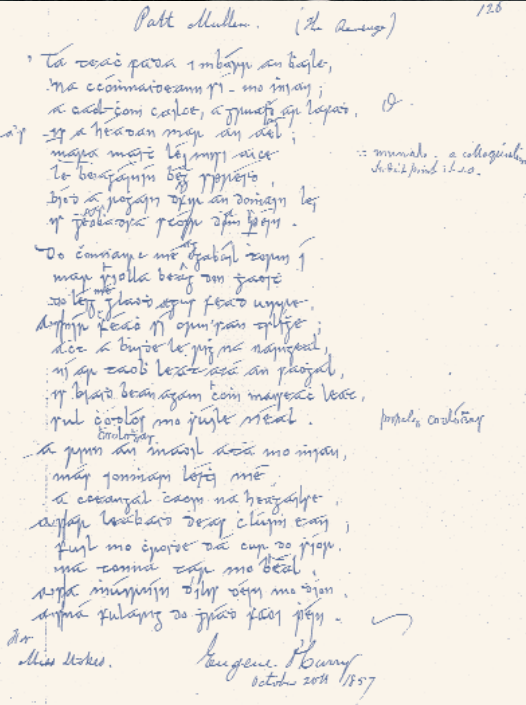
Students from Coláiste Iognáid, Galway taking part in the REMEDI & NCBES GRO Programme for secondary schools.



# Whitley Stokes (1830-1909) An Irishman in India – The discovery of his Celtic notebooks

**B**orn in Dublin on 28 February 1830, Whitley Stokes was the eldest son of William Stokes, the most eminent medical man in Europe in his time. After an undistinguished undergraduate career in Trinity College Dublin, he was called to the Bar in 1853, and removed shortly thereafter to London, where he practised as a lawyer. It was during those years that he came under the influence of Rudolf Siegfried, a student of the great Franz Bopp, founder of the science of comparative linguistics. From Siegfried young Whitley acquired his extraordinary mastery of the Celtic languages and of Sanskrit. In 1862, however, he was sent to India, to a position as Secretary to the Legal Department, and in 1877 he became Law Member of the Council of the Governor-General, a post he held until his retirement in 1882, when he returned to England.

a stroke, freed the study of Early Irish language and literature from the clutches of ‘Celtomaniacs’ and Ossianic dilettantes, establishing it for the first time as a field of respectable scientific study. Stokes took to this ‘new philology’ with gusto, and soon his name was being mentioned in the same breath with Zeuss’s. Before he had turned 40, he was described as ‘Mr Whitley Stokes, the greatest of living Celtic philologists, whom the common voice of the Continent would declare to be the greatest philologist native of these isles’. Once back in London, he devoted himself with even more single-mindedness to his Celtic studies, and the fruits of his researches were a formidable catalogue of further publications (over 200 items in all) that continued to appear until the day of his death, on 13 April 1909.



From the time he arrived until his departure from India twenty years later, hardly a year passed in which Stokes did not make some substantial contribution to the project of codifying the entire body of Anglo-Indian laws: from the seven volumes of *Madras High-Court Reports* (1863) to *A Collection of Statutes* relating to India, which appeared in 1882.

The recent discovery, by Professor Dáibhí Ó Cróinín in the Department of History, of all Stokes’s working notebooks (150 in total, in all shapes and sizes, ranging in extent from 10 to 500 pages) lying unnoticed since 1919 in the University Library in Leipzig, has only now revealed the full extent of his astonishing industry in his later years. It has also turned up some unexpected treasures: a set of 10 songs in the Irish language, collected on the Aran Islands in 1857 (written in the hand of Eugene O’Curry). It is the most important discovery in Celtic Studies in several decades, and will provide scholars with material to work on for many years to come.

During all those years, in whatever time he could spare from his official duties, Stokes was simultaneously carving out a reputation for himself as the foremost scholar of Celtic Studies in these islands. He was fortunate, in that he had been present at the birth of Celtic Studies, so to speak: in 1853, when he was just twenty-three years old, the great Johann Caspar Zeuss published his *Grammatica Celtica*, a work that, at

Whitley Stokes (top) and one of the songs collected on the Aran Islands in 1857. Stokes was a member of the group that visited the islands that year

## NUI Galway receives 8 Stokes Professorship and Lectureship Awards

**M**icheál Martin TD, Minister for Enterprise, Trade and Employment announced 8 awards for NUI Galway in the recent funding awards of €44.55 million, creating 67 new research posts in Higher Education Institutes, under the Science Foundation Ireland (SFI) Stokes Professorship and Lectureship Programme.

in understanding disease processes; and Andrea Erxleben who received a lectureship in Medicinal Chemistry and whose research activities in fields of bioginorganic and medicinal chemistry focus on interactions between metals and biomolecules.

Of the 8 NUI Galway awardees, two will take up their positions between January and March 2008: Lokesh Joshi, who received Professor of Glycoscience, will develop novel technologies in the field of glycosciences and their applications

Professor Nicholas Canny, Vice-President for Research at NUI Galway, said, “The success in the Stokes competition consolidates the research achievements of NUI Galway and adds greatly to our capacity to attract future research funding and to supervise PhD students.”

# New Research Team to Focus on Bioelectronics



The National Centre for Biomedical Engineering Science (NCBES) has launched a new Bioelectronics Research Cluster. With over 20 researchers, the Bioelectronics Research Cluster will focus on Electronic Engineering solutions to medical problems, several of which are associated with ageing.

The research cluster draws on the full range of technical expertise at the Department of Electronic Engineering. The research group was officially launched by Harvard Medical School academic and Biomedical Engineer, Professor Paolo Bonato. One of the key technologies to be developed by the Bioelectronics Research Cluster is known as 'Wearable Electronics for Health Management'. The team will develop a range of body-worn electronic devices to monitor a person's health status and transmit this information on an on-going basis to their health care providers.

Patient trials are about to commence on a wearable muscle stimulation device, developed by the

Bioelectronics Research Cluster, for the treatment of venous leg ulcers. Older people are particularly susceptible to venous leg ulcers if they have been immobilised for a sustained period.

The Bioelectronics Research Cluster is also currently investigating wearable electronics systems for fall detection in the elderly, the management of diabetic foot, gait correction following stroke and mobility monitoring in the elderly.

Professor Gearóid Ó Laighin, Bioelectronics Research Cluster leader, said "It is generally expected that a significantly increased use of electronic and other technologies will be required to provide an efficient healthcare delivery system in the face of ongoing demographic change. In 2001, 17% of the European Union (EU) was aged over 65, however it is estimated that by the year 2035 this figure will have reached 33%. Therefore healthcare delivery methods will need to be adapted to meet the

challenges posed by these changing demographics, while constrained by limited resources."

It is anticipated that this approach to healthcare management will facilitate elderly persons continuing to live in their own home, while having the sense of wellbeing associated with knowing that their health status is being automatically monitored on an on-going basis and that in the event of a medical emergency, assistance will be automatically sought by the system.

The Bioelectronics Research Cluster also has a significant research activity in Diagnostic and Therapeutic Engineering for Cancer.

At the launch of the Bioelectronics Research Cluster: Professor Terry Smith, Director of NCBES and Professor of Biomedical Engineering; Professor Padraic O'Donoghue, Dean, College of Engineering and Informatics; Harvard Medical School academic and Biomedical Engineer, Professor Paolo Bonato; and Professor Gearóid Ó Laighin, Bioelectronics Research.

## Staidéar Cuimsitheach Teangeolaíoch ar Úsáid na Gaeilge sa Ghaeltacht

Foilsíodh an *Staidéar Cuimsitheach Teangeolaíoch ar Úsáid na Gaeilge sa Ghaeltacht* a réitigh Acadamh na hOllscolaíochta Gaeilge, OÉ Gaillimh, i gcomhar leis an Institiúid Náisiúnta um Anailís Réigiúnach agus Spásúil (NIRSA), Ollscoil na hÉireann, Má Nuad le déanaí. Is iad an Dr Conchúr Ó Giollagáin, Seosamh Mac Donnacha, Fiona Ní Chualáin agus Aoife Ní Shéaghdha ó Acadamh na hOllscolaíochta Gaeilge, agus Mary O'Brien ón Institiúid Náisiúnta um Anailís Réigiúnach agus Spásúil (NIRSA) údair na tuarascála.

Cuireadh an tuarascáil seo le chéile don Roinn Gnóthaí Pobail, Tuaithe agus Gaeltachta i dtaca leis an gconradh taighde a thionscain an Roinn le hAcadamh na hOllscolaíochta Gaeilge, OÉ Gaillimh, i gcomhar leis an NIRSA, Ollscoil na hÉireann, Má Nuad. Tugadh faoin tuarascáil seo a chur i dtoll a chéile idir Aibreán

2004 agus Deireadh Fómhair 2006. Is é atá mar phríomhaidhm leis an tuarascáil chríochnaitheach seo anailís a dhéanamh agus faisnéis a chur ar fáil a thugann léargas chomh cruinn agus is féidir ar úsáid na Gaeilge sa Ghaeltacht chomhaimseartha. Is é seo an píosa taighde is cuimsithe a rinneadh ar an nGaeltacht ó bunaíodh an stát.

Ag seoladh an leagan leictreonach den tuarascáil anuraidh, d'fhógair an tAire Éamon Ó Cuív, T.D., go mbunófaí Coiste Comhairreachta le moltaí an staidéir a mheas. Chuir sé in iúl go léireodh an Rialtas cén straitéis a chuirfidís i bhfeidhm le dul i ngleic le himpleachtaí an taighde faoi dheireadh 2008. Idir an dá linn d'fhógair an Rialtas ionadaíocht an Choiste a bheidh faoi chathaoirleacht an Aire Airgeadais, Brian Cowen, T.D. Is iad Éamon Ó Cuív, Mary Hanafin, Noel Dempsey, Mary Coughlan, agus John Gormley na

hairí eile a bheidh páirteach sa Choiste.

Ceist íogair faoi inmhathanacht oidhreacht theangeolaíoch na Gaeltachta a bhí faoi chaibidil ag údair an staidéir agus tá suntas náisiúnta agus idirnáisiúnta á dhéanamh d'impleachtaí an taighde ó foilsíodh anuraidh é. Labhair údair an staidéir ar thorthaí agus tatal an staidéir ag seimineáir agus ag comhdhála in Éirinn, san Ungáir, sa Ghearmáin, sa Nua-Shealainn agus san Iodáil chomh maith le cuir i láthair phoiblí i gceantair éagsúla Ghaeltachta; agus tuilleadh á mbeartú sa Bhreatain Bheag, sa Phortaingéil agus san Ollainn i measc áiteanna eile. Tá an leagan iomlán den tuarascáil agus an leagan achoimreach den taighde i nGaeilge agus i mBéarla agus aguisíní an taighde le fáil ar [www.pobail.ie/ie/anghaeltacht/anstaidearteangheolaioch/](http://www.pobail.ie/ie/anghaeltacht/anstaidearteangheolaioch/).



## Climate Expert Awarded Higher Doctorate by Leading UK University

**D**r Colin O'Dowd, School of Physics, and Director of the Environmental Change Institute's Centre for Climate & Air Pollution Studies, has been awarded a Doctorate in Science from the University of Manchester.

The award was in recognition of highly distinguished published work resulting from research into atmospheric aerosols and their role in climate change. Dr O'Dowd has made a substantial, sustained and original contribution to knowledge and scholarship, and holds an authoritative international standing in his field of research. His research papers

presented for the Doctorate of Science are regarded as having made the substantive part of the most significant advances in atmosphere aerosol research over the past twenty years.

The overarching aim of O'Dowd's research is to understand fundamental processes controlling climate change and air pollution and to build the most advanced climate prediction tools to provide accurate assessments of future climate change for Ireland.

Dr Colin O'Dowd

### Award for Department of Management

An award of €0.5m has been awarded to Dr Tony Dundon (PI), Department of Management, J.E. Cairnes School of Business and Economics for Assessing the Impact of Employee Information and Consultation Regulations in Cross-Border Enterprises on the island of Ireland

This project, funded under a new bi-lateral IRCHSS and ESRC thematic grant scheme, will examine the nature and impact of European labour market regulation on employee voice schemes in a comparative context on each side of the Irish border. The findings will provide data on the unexplored phenomenon of cross-border responses to regulation and address the controversies surrounding convergent and divergent regulatory employment patterns. The project will be conducted in collaboration with Dr James Donaghey and Professor Paul Teague at Queens University, Belfast.

### BIOFUN award

IRCSET have agreed to provide a grant of €240,000 to fund the participation of scientists from The Martin Ryan Institute and the Department of Microbiology in a three year international project (BIOFUN) which aims to study links between biodiversity and ecosystem functioning in southern European deep-sea environments. The NUI Galway team, lead by Professor John Patching and Dr Ger Fleming, will be studying the structure of microbial communities in the deep waters of the Mediterranean and to the west of Spain and will attempt to identify the key members of these communities and their response to inputs of organic material. Bacteria which are adapted to the high pressures of the deep ocean are also potential sources of novel and valuable products. The BIOFUN project forms part of the European Science Foundation EUROCORES EuroDEEP initiative and also involves scientific centres in Spain, Italy, Greece, Holland, Belgium, France and Germany.

### IT award

Dr Jim Duggan, Department of Information Technology, has just been awarded a Principal

Investigator grant of over €600,000 by Science Foundation Ireland to design innovative computational algorithms that can enhance our ability to model, and to understand, the dynamics of complex systems. These methods can then be applied to increase our understanding of a range of problems, including: market dynamics, consumer behaviour, supply chain management and software project management. The duration of the grant is for four years, and will fund a team of six researchers.

### Department of Botany to host US Fulbright Scholar

Dr Daniel Sarr, of Southern Oregon University, Ashland, Oregon, U.S.A. has received a Fulbright Award ([www.fulbright.ie](http://www.fulbright.ie)) which is being co-funded by Ireland's Environmental Protection Agency. He will be based in the Department of Botany from early February until the end of June, 2008. His PhD was in Forest Science (water resources) and he specialises in environmental monitoring of national parks.

While at NUI Galway he will be working on a programme entitled 'Native Wetland Ecology and Conservation in Burren National Park and Environs, Western Ireland'. In collaboration with Dr Micheline Sheehy Skeffington of the Department of Botany and Dr Mike Gormally, Applied Ecology Unit, Centre for Environmental Sciences, Dr Sarr will focus on the turloughs of the Burren and their management within the Burren National Park and the adjacent landscape. He will also lecture to senior undergraduates and postgraduates on wetlands, ecological restoration and conservation policy in the Pacific Northwest of the US.

### Appointments to EU Expert Group

Three members of the Law Faculty have been appointed to a legal expert group, FRALEX, which will advise the newly established EU Fundamental Rights Agency (FRA) based in Vienna. The team which is led by the Dean of Law, Donncha O'Connell, includes Dr Pdraic Kenna and Diarmuid Griffin. Mr O'Connell was previously a member of the EU Network of Independent Experts on Fundamental Rights established by the European Commission in 2002. As the Senior Expert on the Irish team he joins most of the previous members of that Network who combined to bid successfully for the FRALEX contract.

# Collaboration on Driving

## Knowledge Region



**N**UI Galway and GMIT have formed a strategic alliance to develop Galway and surrounding areas into a recognised “Knowledge Region”.

Together they have secured funding of €824,000 under the Strategic Innovation Fund (SIF), which supports Higher Education reform. The funding will be used to stimulate economic development, provide a greater range of services to communities, business and industry, and enable people to avail of higher education in the region.

This concerted collaborative approach to regional development will deliver greater benefits than could be achieved by implementing parallel programmes.

Newly appointed President of NUI Galway,

Professor Jim Browne, welcomed the announcement, saying; “The concept of a ‘Knowledge Region’ is an emerging phenomenon involving the interaction of governmental agencies, knowledge-based enterprises and third-level institutions to combine efforts and define common agendas to the benefit of the region. NUI Galway and GMIT, with their history of cooperation and interaction with industry, development agencies, and social and cultural organisations in the Galway area, are well placed to act together as a catalyst for further development”.

Marion Coy, President of GMIT, said: “This strategic alliance is timely in view of the recent push to pour more investment into the eastern region, particularly as there is concern at the lack of focus, and a sense of urgency, around the implementation of the National Spatial Strategy”.

This collaborative project is one of a range of proposals approved for SIF funding. The Strategic Innovation Fund allocated a further €3 million to NUI Galway for the continuation of its academic reorganisation and the development of graduate schools. The University expects to be a major beneficiary of funds reserved under the SIF initiative for major IT systems development towards transforming the student experience in a cohesive and integrated manner.

Professor Browne added that the funding provided to NUI Galway in support of its new academic structures and graduate education was evidence of the progress being made by the University in both areas.

## LightHOUSE

**L**ightHOUSE, The Centre for Applied Photonics, was created two years ago as a combination of the activities of the National Centre for Laser Applications (NCLA) and the Applied Optics Group. It currently comprises approximately 45 researchers, of whom 25 are research students, and has an annual funding of €2.5m per annum. LightHOUSE was recently awarded €2.7m for infrastructure as part of a national nanoscience initiative and is hoping to create a third research strand in biophotonics in 2008. It is a 50% partner in a training programme “BESTNet” for Irish industry and will deliver over 100 hours of training to industrial personnel in optics and lasers in the next three years.

LightFORUM is the industry outreach initiative of LightHOUSE and recently hosted a number of training courses, seminars and round-table events for industry. The third annual meeting of LightFORUM was held in October. The meeting was opened by Professor Nicholas Canny who noted the recent significant success of LightHOUSE in

securing PRTL funding, following the adoption of photonics onto the Universities strategic research agenda last year. The theme of the meeting was “Competitive Advantage through Photonics” and the event was a huge success, with over 65 attendees registering, from over 30 companies. They were talks from a range of speakers, on optics, laser nano-structuring, industrial research strategies, and employee training programmes. Invited speakers included Dr Steve Fantone, President of Optikos Corporation and Dr Andreas Ostendorf, CEO of Laser Zentrum Hannover.

LightHOUSE also has a research experience programme for undergraduate students, LightSCHOOL, which in the summer of 2007 hosted 10 international students for a 10-week period, providing not only research activities but also training modules.



# Research Publication and Dissemination - the Future?

A host of experts recently gathered for a one-day conference organised by the James Hardiman Library on “Research Publication & Dissemination – the Future?”

Speakers at the event included: SFI’s Director General, Professor Frank Gannon; Professor Nicholas Canny, Vice-President for Research & Academic Director, Moore Institute; Mr Martin Hynes, Executive Director, IRCSET; Professor Stefan Decker, Director, DERI; Mr David Hoole, Head of Brand Marketing and Content Licensing, Nature Publishing Group; Patricia Brennan, Manager of Product Development, Thomson Scientific; Ms Niamh Brennan, Programme Manager, Research Information Systems & Services, TCD; and Mr Robin Adams, Chair of IUA Librarians Group and Librarian, TCD.

Over 100 delegates from Ireland and overseas attended the conference tackling a number of core issues and developments affecting the future of scholarly research publication and dissemination across STM and Humanities and Social Science related disciplines.

A prominent theme of the event was developments in Open Access publishing. This strand brought together a range of perspectives including funders, publishers and research-led institutions, raising key considerations and insights posed through the open access movement. Contributing to developments in this area, the University working with the Library Service is currently developing an institutional repository.

For programme details, speakers and presentations visit: <http://www.conference.ie>.



Pictured: Professor Nicholas Canny, Vice-President for Research & Academic Director, Moore Institute; Professor Frank Gannon, Director General, Science Foundation Ireland; and Professor Jim Browne, President NUI Galway.

## €3.2m Research Stimulus Fund Programme

The Minister for Agriculture, Fisheries and Food, Mary Coughlan T.D. announced the Research Stimulus Fund Programme (RSFP) awards in January and NUI Galway secured over €3.2 million through its involvement in 5 of the research projects funded.

The main objectives of the RSFP are to facilitate research that fills gaps in mainstream programmes, to support sustainable and competitive agricultural production practices and policies, and to contribute to building and maintaining a knowledge economy and a scientific research capability in the agriculture sector.

### NUI Galway projects funded:

<b>Teagasc/NUI Galway/AFBI N.Ireland:</b> €940,704 Project Title: Energy generation option from pig manure and sustainable disposal of residue <b>Dr Xinmin Zhan and Dr. Michael Rodgers</b>	<b>Teagasc/NUI Galway:</b> €611,296 Novel agri-engineering solutions for amelioration of surface and groundwater at critical source areas: technology and decision support blueprint for Irish farmers <b>Dr Michael Rodgers</b>
<b>NUI Galway:</b> €569,885 An ecological economic analysis of agro biodiversity in the Irish uplands <b>Dr Thomas Van Rensburg</b>	<b>Teagasc/NUI Galway:</b> €89,983 A review of evidence for agri-environmental measures to create and enhance farmland habitats <b>Dr Michael Gormally</b>
<b>NUI Galway/Marine Institute:</b> €995,094 Assessment and mitigation of soil and nutrient losses from acid-sensitive forest catchments <b>Dr Michael Rodgers</b>	

## Respite Services Study

The Child and Family Research Centre (CFRC) at the School of Political Science and Sociology recently completed a study titled ‘Towards Best Practice in the Provision of Respite Services for People with Intellectual Disabilities and Autism’. The study’s two main aims were to investigate best practice in respite care for people with intellectual disabilities and autism and to raise

the policy profile of this area of service provision. In the study, eight provisional principles of best practice were proposed as a start-point for practice development and further research. The research was undertaken on behalf of the National Parents and Siblings Alliance by Brian Merriman and John Canavan, and was funded by the Daisychain Foundation.