



Research Matters

Cúrsaí Taighde in Ollscoil na hÉireann, Gaillimh

HEALTH MINISTER ANNOUNCES €21M FACILITY

A €21 million Clinical Research Facility (CRF), funded by the Health Research Board (HRB) and the Health Service Executive will be led by researchers at NUI Galway along with clinician scientists from University College Hospital Galway (UCHG). The aim of the HRB/HSE facility is to provide the infrastructure - the physical space, facilities and the expertise - needed to support patient-focused research studies.

The new facility will concentrate on patient-focused research and will make a significant contribution to postgraduate research and training of health professionals. Medical doctors and nurses will work with other scientists to improve our understanding of a variety of diseases and to develop new tests and treatments to help tackle these diseases.

Professor Tim O'Brien, Consultant Endocrinologist at UCHG, Head of the Department of Medicine, and Director of REMEDI said the new facility should be completed by 2009.

"The facility will contain specially designed rooms for gene and cell therapy. When it opens, it will complete the infrastructure present in Galway to allow clinical studies to be undertaken in areas such as heart, joint, and spinal cord repair, ensuring an integrated bench to bedside approach," he said.

The Centre will provide patients with the latest advances in areas such as regenerative medicine, cancer, obstetrics and gynaecology, diabetes and inflammatory diseases. Importantly, support will also be provided for studies carried out in general practice settings through analysis of samples taken,



provision of statistical support, and co-ordination of studies. This will include research on the management of chronic diseases such as diabetes.

"The CRF will have a special focus on education of health care professionals in clinical research with plans to establish new programmes such as an MSc in Clinical Research and Biostatistics and PhD programmes for clinicians," said Professor Larry Egan, Head of the Department of Pharmacology and Therapeutics and a co-applicant on the proposal.

The Minister for Health and Children, Mary Harney TD, who met recently with the lead researchers and funders, said the investment is a major boost for clinical research and patient care in the West of Ireland.

"This HRB/HSE Clinical Research Facility will enable clinicians, the health care industry, and other

key partners to test innovative therapies, technologies and products and increase the speed at which scientific discoveries and innovations can be translated into better patient care. It will also build on the major investment by this Government in basic research facilities at NUI Galway in recent years," said Ms Harney.

The CRF will be jointly governed by NUI Galway and the HSE, and will also connect with the new HRB / Wellcome Trust CRF at St James's Hospital Dublin and emerging facilities at Dublin teaching hospitals through the establishment of the Irish Clinical Research Infrastructure Network (ICRIN). When fully operational, the Clinical Research Facility will employ a staff of 20.

Pictured: Dr Iognáid Ó Muircheartaigh and Minister Mary Harney, T.D. during her recent visit to the University

RESEARCH MATTERS

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Message from the Vice President for Research



This issue of *Research Matters* marks the close of the busiest year that the Research Office has ever experienced. It also goes to press on the same date on which the HEA's International Advisory Panel adjudicates upon the 4th Cycle of the Programme for Research in Third

Level Institutions (PRTL14). Even without knowledge of the outcome from PRTL1, of which we remain hopeful in the aftermath of positive site visits, 2006-07 will become a landmark year in the promotion of research activity across the institution. For example, NUI Galway has attracted one of four President of Ireland Young Researcher's Awards granted in 2007; the University (together with University College Hospital Galway) has won joint HRB/HSE funding of €21 million to establish a Clinical Research Facility; NUI Galway scientists have secured major successes under the Parsons Energy Research scheme and the Griffith Geoscience Research scheme. Many researchers have been involved in applications to the HEA for funding for Graduate Research Education Programmes (GREPs), while grants from Enterprise Ireland have made the Technology Transfer Office the most active of its kind in any Irish university. Over and above such exchequer support, researchers in Applied Social Science have attracted significant endorsement from Atlantic Philanthropies for their research programmes in ageing, family support, and disability law, and will play a key role in the €17m investment by Intel in a research programme

designed to promote independent living for ageing people.

However, such success calls for reflection on two issues. The first is the impact that funding, which is skewed in favour of scientific and applied research, is likely to have on the teaching mission of the university generally, and on the standing and reputation of the Arts and Humanities particularly. The second is how we can measure the outcomes from major research awards in a way that will satisfy the requirements of funding agencies without intruding unduly upon academic freedoms. The latter must become the subject of urgent academic debate, and I would suggest that the most effective means of rectifying imbalanced development is to ensure that any further 'new blood' academic posts requested from the HEA's Strategic Innovation Fund should be for those faculties and schools not eligible for SFI subvention, and that the cause of Arts and Humanities become the prime target for solicitation by the Galway University Foundation.

Pictured: Professor Nicholas Canny, Vice-President for Research

Met Éireann and the Irish Centre for High-End Computing (ICHEC)

The Irish Centre for High-End Computing (ICHEC) has embarked on a new collaboration with Met Éireann, the Irish National Meteorological Service, to provide computational facilities and support to enable it to run its operational high-resolution forecast models. ICHEC's flagship supercomputer, Walton, currently the 376th fastest computer in the world will allow Met Éireann to improve the quality of its forecast products. This collaboration will also provide a

suitable framework for ICHEC to bring its considerable expertise in High Performance Computing to the climate modelling and weather prediction communities. ICHEC will take an active part in the development of faster and more accurate simulation codes that are of interest to Met Éireann and other national weather forecast agencies. This involvement is expected to bring considerable benefits to the environmental science research community in Irish universities.

ICHEC is a project funded by Science Foundation Ireland (SFI) with contributions from the Higher Education Authority (HEA) through the CosmoGrid project. ICHEC's partner institutions include NUI Galway, DCU, UCD, TCD, Tyndall National Institute (UCC), UCC and NUI Maynooth. ICHEC operates the National HPC service, a service offered to all researchers in Irish universities and research organisations. See <http://www.ichec.ie>

R. H. Gapper Book Prize awarded to Maria C. Scott

Maria Scott, Department of French has recently been awarded the seventh annual R. H. Gapper Book Prize for her book *Baudelaire's 'Le Spleen de Paris': Shifting Perspectives*, published by Ashgate. She received her award at the Society of French Studies annual conference at the University of Birmingham.

Dr Scott's book is one of only a few that have explored Baudelaire's late work, *Le Spleen de*

Paris. In analysing the operation of irony in Baudelaire's *Le Spleen de Paris*, Dr Scott argues that the joke is ultimately on the reader: to recognize irony is to participate in a process that is governed by a perplexing and manipulative duplicity. The book will have a decisive impact on the study of the later Baudelaire and shows also how so seemingly hackneyed a resource as irony can still impart an unexpected dynamism to the act of reading.

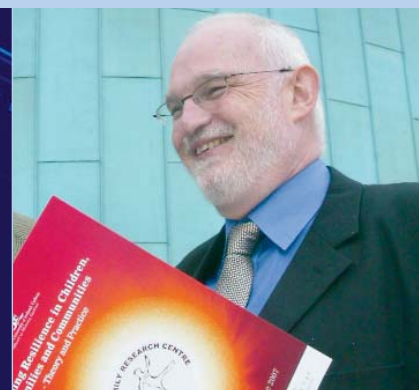
The award, which is for the best book published in 2005 by a scholar working in Britain or Ireland in French studies, was made by the Editors of the journal *French Studies*, Professor Michael Freeman and Professor Patrick O'Donovan, together with Mr Richard Gapper, representing the R. H. Gapper Charitable Trust. The Society for *French Studies* (www.sfs.ac.uk) is the leading scholarly organisation in French in Britain and Ireland.

Research Matters is published by the Press & Information Office, in association with the Office of the Vice President for Research. Items for publication, views, comments, and suggestions are all welcome.

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Focus on the Child and Family

Research Centre



Based at the School of Political Science and Sociology, the Child and Family Research Centre (CFRC) is a partnership between NUI Galway and the Health Services Executive. With significant support from Atlantic Philanthropies Ireland, the CFRC has recently embarked on a new phase in its development and is expanding its capacity to work with a broad spectrum of researchers, policymakers, and service providers for children and families.

CFRC's main objective is to improve outcomes for children and their families; advance family support practice; and advance policy both in Ireland and internationally.

Dr Pat Dolan, Director of the Centre, has over 20 years experience in family support frontline work, service development, management, and research. He explains the Centre has evolved in response to the increasing demand for services for child welfare that deliver the best outcomes for children.

"In the past, family support research focused more on the theoretical nature of child welfare. The CFRC is very much about applying practice to the theory and sharing and disseminating methodologies that enable practitioners to support families better," said Dr Dolan.

What began as the Child and Family Research and Policy Unit (CFRPU) in 2001, when Dr Dolan undertook contract work for the HSE, children's charity Barnardos, and other family support agencies, the CFRC is now widely recognised as being at the forefront of research, education and training in Family Support.

Dr Dolan, and the CFRC management team of Associate Director Dr John Canavan and Development Manager Ms Aileen Shaw, believe the CFRC will be a leading Centre of International Excellence within five to ten years with over 20 full-time staff and PhD students. International

THE CENTRE'S MAIN OBJECTIVES ARE TO:

- Understand child and family needs by producing scientific research and evaluations
- Improve services for children and families through: third and fourth level education; better service design; and learning networks for service practitioners
- Build research capacity in family support through applying best practice methodologies, developing researchers, and supporting practitioner research
- Influence policy for children by engaging with researchers, policymakers, service providers, children and their families

collaborations already exist with the Chapin Hall Centre for Children, based at the University of Chicago, while closer to home Dr Dolan's team are engaged in a research consortium with the Children's Research Centre at Trinity College Dublin and the Institute for Childcare Research at Queen's University Belfast.

Underpinning the CFRC vision and objectives is a commitment to research and the evaluation of Family Support as a broad-based policy and services paradigm.

Family Support oriented policies and services are based on:

- **SOCIAL SUPPORT:** strengthens family, friends and community support networks,
- **RESILIENCE:** emphasises children's and families' strengths as a resource for addressing the problems they face
- **SOCIAL ECOLOGY:** an attention to the wider environment in which the child and family live
- **PRACTICE:** intervention that is needs-based, flexible, accessible, is delivered in partnership and promotes social inclusion

Research undertaken at the CFRC is strongly connected to applied work for children and

families and relevant to a broad range of stakeholders including service users, policymakers, politicians, service managers and front-line staff. The context for the CFRC's research agenda is greatly influenced by the need for evidence-based services and by practical, outcome-focused considerations. The Centre supports organisations with mapping needs, identifies models and tools for best practice, and measures service delivery.

Alongside policy and practice research, the Centre is committed to a programme of academic publication, feeding the development of theory and contributing to education and training in the field. Additionally, the CFRC undertakes a wide range of related activities including conferences, symposia, visiting faculty exchanges, and practitioner networking. An overarching aim of all of these activities is to support the integration of research, policy, and practice.

The CFRC's commitment to understanding practice and educating practitioners is embodied in its expanding postgraduate training programme. The Higher Diploma / MA in Family Support Studies programme offers a vocational postgraduate qualification for professionals working in state and voluntary services on behalf of children and families. A PhD Programme has also been established which enables Child & Family Research Centre Doctoral Fellows to undertake a three-year programme of study, and contribute to the work of the Centre.

The CFRC, which is overseen by an external Management Board chaired by Professor Chris Curtin, will be formally launched by President Mary McAleese in September 2007.

Pictured: Dr Pat Dolan, Director of the Child and Family Research Centre



Revealing the power of ‘failed stars’

Researchers at the Centre for Astronomy have made an important discovery regarding brown dwarfs, which has revealed that these “failed stars” can possess powerful magnetic fields and emit lighthouse beams of radio waves thousands of times brighter than any detected from the Sun.

The team including NUI Galway researchers Gregg Hallinan, Stephen Bourke and Caoilfhionn Lane; scientists based at the Armagh Observatory; and US researchers in New Mexico and Arizona, has discovered that the brown dwarfs are behaving like pulsars, one of the most exotic types of object in our Universe.

“Our research shows that brown dwarfs can be fascinating and dynamic systems, and may be the key to unlocking this long-standing mystery of how pulsars produce radio emissions,” said Mr Hallinan who presented his findings at a recent meeting of the Royal Astronomical Society in Preston, UK.

Since the discovery of pulsars 40 years ago, astronomers have been trying to understand how the rotating neutron stars produce their flashing radio signals. Although there have been many attempts to describe how they produce the extremely bright radio emissions, the vast magnetic field strengths of pulsars and the relativistic speeds involved make it extremely difficult to model.

The researchers have found that brown dwarfs are now the second class of stellar object observed to produce this kind of powerful, amplified (coherent) radio signal at a persistent level. The emissions from the brown dwarfs appear to be very similar to

those observed from pulsars, but the whole system is on a much slower and smaller scale, so it is much easier to decipher exactly what is going on. Importantly, the mechanisms for producing the radio emissions in brown dwarfs are well understood, as they are almost identical to the processes that produce radio emissions from planets.

The group is now planning a large survey of all the known brown dwarfs in the solar neighbourhood to find out how many are radio sources and how many of those are pulsing. If a large fraction of brown dwarfs are found to pulse, it could prove a key method of detection for these elusive objects.

Meanwhile, Professor David Malin, the most famous Astro-photographer in the world, recently gave a lecture at the Centre for Astronomy. Professor Malin of Anglo-Australian Observatory (AAO) and the Royal Melbourne Institute of Technology, Australia spoke on the history of astronomical imaging and the profound effect it has had on knowledge of the universe. He also discussed the art and science of colour photography in astronomy and how the vivid colours of clouds of gas and dust can be at the same time be real and yet invisible through the telescope.

Photographs created by David Malin can be found in many popular astronomy books and magazines, and are displayed in museums and planetaria throughout the world. Previews of his work can be seen on www.davidmalin.com.

Prof. David Malin during his recent lecture at the Centre for Astronomy

Environmental health conference at ECI

A host of experts in environmental health gathered at the Environmental Change Institute in March for the country’s first ever international conference on reducing environmental risks and protecting public health.

The collaborative HSE West/NUI Galway three-day conference highlighted new thinking, new science, and new horizons in protecting our shared environment and the health of current and future generations. There was a particular emphasis on the role of research in informing health policy and in evaluating health intervention programmes.

Speakers at the ‘New Horizons in Environmental Health’ conference included RTÉ’s *ECO Eye* presenter Duncan Stewart; Professor of Environmental Health Sciences, Katharine Hammond, University of California, Berkeley; Dr Diarmuid O’Donovan, Director of Public Health, HSE West; and Dr Martina Prendergast,

Development Manager, Environmental Change Institute (ECI), NUI Galway.

Over 100 Environmental Health Officers (EHOs) from Ireland and the UK attended the conference where they learned of the potential benefits to public health by their participation in research initiatives that assess exposures and risks associated with environmental factors.

A prominent theme of the conference was the role of environmental research in informing health policy and in evaluating health intervention strategies. It also looked at bridging the gap between academic research and the development of relevant research policy in the area of environmental health, through successful collaboration and cooperation between the academic community, environmental health practitioners, and policy makers.

€3m Research Funding comes to Geosciences at NUI Galway



The Department of Earth and Ocean Sciences (EOS) has been awarded more than €3 million to expand its research capability into coastal and marine environment science by Minister for Communications, Energy and Natural Resources, Mr Eamon Ryan T.D.

The Griffith Geoscience Research Awards aim to develop Irish research capacity to support energy, environment, marine, and infrastructural aspects of the Government's National Development Plan (NDP). The largest of the eight awards was given to a mixture of teaching and research staff in the newly-formed Department of Earth and Ocean Sciences and the Environmental Change Institute.

Dr. Colin Brown, Principal Investigator, commented that: "The Griffith Award will provide us with 3 additional research staff, 6 post-graduate students and funding for 16 undergraduate projects that we need so we can get to grips with the NDP priorities which affect us on the west coast of Ireland. We're delighted because the award will strengthen our links with the Geological Survey of Ireland who are managing the Griffith scheme and because it's a

vote of confidence in the way our research and undergraduate teaching has been re-aligned to 21st century national priorities".

Dr Brown explained: "One project in the research programme will establish the chemistry and pathways connecting water flows, particularly those underground, between limestone areas in Galway and Clare with coastal waters. The outcome will help to understand the effects on sensitive coastal ecosystems and provide the basis for sustainable management of the coastal zone.

"Another project will use data collected by the Geological Survey of Ireland and others to understand the composition and transport of seabed sediments. This is important for offshore engineering, dredging, locating routes for telecom cables or oil and gas pipelines and construction of wind farms. Surprisingly, it's even important for estimating marine biodiversity and establishing protected areas for fisheries management".

Professor S. Gerard Jennings, Director of the Environmental Change Institute, which is managing

the research programme said, "This is exactly the type of investment we need to enhance facilities and infrastructure in environmental science in the West of Ireland. It should be a significant impetus in attracting students and researchers to the field of Geoscience in the region".

More than €9.1 million of Government grants were announced to 9 groups from Irish universities and research organisations, north and south, to fund priority research in Geosciences.

The Griffith Geoscience Research Awards honour Richard Griffith the celebrated geologist and engineer, who lived from 1784 to 1878. The awards are designed to encourage and develop world-class geoscience research and educational activities in Ireland. The research activities specifically target the pillars of energy, environment, marine and infrastructure.

Pictured: Dr Colin Browne, Dept of Earth and Ocean Sciences; Mr Eamon Ryan, T.D; and Prof. Nicholas Canny, Vice President for Research

DERI researchers set world record with Internet technology

Internet researchers at the Digital Enterprise Research Institute (DERI) have made a major technological breakthrough in the Semantic Web, a machine readable version of the web which enables more efficient internet searching.

Current internet technology means that users must filter search results and decide what is relevant. The Semantic Web enables the computer to filter information and also powers the intelligent transfer, sharing and negotiation of information between computer systems.

The Semantic Web Search Engine developed at DERI is able to answer queries with more than 7 billion RDF statements in fractions of a second - the largest

number reported so far anywhere in the world. An RDF statement is the entity that makes the Semantic Web semantic. Possible application areas include Social Network Applications and Analysis, eHealth applications, Web Search, location based services, and financial searches.

"The importance of this breakthrough can not be overestimated" says Professor Stefan Decker, Director of DERI. "These results enable us to create web search engines that really deliver answers instead of links. The technology also allows us to combine information from the Web, for example the engine can list all partnerships of a company even if there is no single web page that lists all of them."

DERI is currently the largest applied research organisation in the world developing the next generation of internet technology – the Semantic Web. DERI was founded in 2003 with CSET (Centre for Science and Engineering Technology) funding from Science Foundation Ireland. It has since grown to over 100 people and has acquired significant additional research funding from sources such as the European Union Framework Programmes, Enterprise Ireland, and SFI.

More information about DERI and the Semantic Web Search Engine Project can be obtained from <http://www.deri.ie> <http://www.swse.org>



Enhancing regional competitive advantage

Researchers at the Centre for Innovation & Structural Change (CISC) in collaboration with the University of Massachusetts at Lowell, USA, are engaged in a project to generate and embed a research capacity to gather, analyse, and disseminate innovation data in emergent and fast changing high-technology clusters in Ireland. Funded by the EU's Marie Curie Transfer of Knowledge initiative, the LUCERNA project is led by Dr Paul Ryan, Department of Management and CISC. Dr Ryan is joined by Professor Mike Best, Director of the Center for Industrial Competitiveness at UML, who has been seconded to NUI Galway for the duration of the project.

The principal disciplines involved in LUCERNA are evolutionary economics, economic geography, management sciences, information systems, and computer science and innovation studies. While the centrality of innovation to a region's socio-economic development is widely acknowledged, this policy

priority is not currently matched by an academic or policy research capacity in Ireland for data gathering and integration, or for rigorous interpretative exercises which could inform policy.

Commenting on the significance of the research, Dr Ryan said: "This is original research that mines down into the DNA of economic activity by delving into the historic development of technological capabilities that lead to distinctive, specialized competitive advantage for a region's firms, industries, and local economy."

The transfer of knowledge proposed in LUCERNA is expected to significantly enhance Ireland's capacity for meeting this challenge of innovation enhancement, in particular in the Border, Midland and West (BMW) region.

Pictured: Majella Giblin and Dr Paul Ryan, CISC

Award Success

Research into media portrayal of disabled people

Marie McGonagle and Shivaun Quinlivan at the Faculty of Law have been awarded a research contract jointly funded by the Broadcasting Commission of Ireland (BCI) and the National Disability Authority (NDA). The research centres on the representation of people with disabilities in the Irish broadcast media and involves international and comparative research on the legislative, policy and practice approaches in a number of countries worldwide. NUI Galway law graduates Ingrid Cunningham and Olivia Mullooly are also involved in the project.

CISC lecturer awarded Walsh Fellowship

Dr Rachel Hilliard, Centre for Innovation & Structural Change (CISC), has been successful in winning funding of €63,000 for a PhD student under Teagasc's competitive Walsh Fellowship scheme. The project 'Teagasc Monitor Farms - An Analysis of Technology and Knowledge Diffusion' aims to examine the diffusion of technology and knowledge from Teagasc's monitor farms to the wider farming community.

Tom Power Medal for smoking ban research

Maurice Mulcahy, Environmental Health Officer with HSE West, and a PhD student in the Department of Physics under the supervision of Dr Miriam Byrne, has been awarded the inaugural Tom Power Medal for his research on secondhand tobacco smoke. The medal, which is in honour of the Office of Tobacco Control's former Executive Officer Tom Power, was in recognition of the significant role Mr Mulcahy has played in providing the scientific support for the introduction of the smoking ban in 2004.

Biochemistry student bound for Mayo Clinic

Aoife Ní Mháille, a 3rd year PhD student at the Department of Biochemistry was recently awarded funding to participate in a multiple sclerosis research project in the prestigious Mayo Clinic in the US. Aoife, who is a student of Dr Úna Fitzgerald, received an award of €5,175 to fund a 9-week visit to the Mayo Clinic where she will work alongside Dr. Claudia Lucchinetti. The funding was awarded in a competition run by the Irish Institute of Clinical Neuroscience and jointly funded by Sanofi-Aventis.

ECI's First Annual Research Day

The Environmental Change Institute held their first Annual Research Day recently at which over 50 posters were presented. ECI researchers delivered a series of talks and the prize for Best Poster, as voted by attendees on the day, was awarded to Dermot Hughes & Olivia Kelly, from the Microbial Ecology Laboratory. ECI research areas include Climate Change, Biodiversity, Energy, and Environment and Health, with Environmental Informatics, Environmental Modelling, and Social and Economic Impact cross-cutting all of the main research areas.

HRB National Research Fellowship

Claire Welford at the Department of Nursing and Midwifery Studies has been awarded a Health Research Board National Research Fellowship. The three year fellowship will enable Claire to complete her Doctoral work entitled: Measuring and Improving Resident Autonomy in Long-Stay Care for Older People. The HRB fellowships provide nurses with the research experience necessary to develop their expertise as specialists in their chosen field.

Break-through Technology from NUI Galway for Bio-fuel Production



NUI Galway and Eirzyme Ltd have recently signed an exclusive licensing agreement for a novel and unique fungal strain and enzyme technology system to manufacture low-cost enzymes which are fundamental in the conversion of complex biomass to simple sugars, which in turn can be easily fermented to bioethanol, biogas or to other valuable by-products. Soaring oil prices, global warming, EU legislation in support of the KYOTO agreement and the desire for countries to be more energy self-sufficient is driving growth in the European and global biofuels market. Bioethanol is a clean fuel that can be used as an alternative to petrol in cars (as a 15% ethanol/85 gas blended version or 100% with minor adjustments). Biofuels is a young industry growing at a rate of 25% - 50% each year. New entrants join the field constantly and new technology breakthroughs are infrequent. One such new entrant is a new Irish company - Eirzyme Ltd - who have incorporated in Ireland and who will set up initial R&D laboratories at NUI Galway's Biocubator Facility which was established with funding from Enterprise Ireland.

Bioethanol is one of the lowest cost and most consumer-friendly ways to reduce petrol consumption. However, until recently, producing ethanol has been very costly because of the expensive and inefficient bioprocess required. Eirzyme has committed a significant amount of funding to this start-up venture and will optimise specific enzyme cocktails from a variety of feedstocks sourced from a range of territories including the USA, the EU, the Caribbean basin, Central and South America, and Australia, amongst others.

NUI Galway's proprietary enzyme technology was developed by a research team at the Department of Biochemistry, led by Dr Maria Tuohy. The technology is based around proprietary enzyme technology systems which are tailor-made and will be used to efficiently convert cellulosic rich feedstocks and biomass into simple sugars. These sugars are fermented into Bioethanol fuel using conventional fermentation technology or to biogas using anaerobic digestion technology. A 100 litre fermentation facility has been installed to facilitate technology scale-up.

Dr Daniel O'Mahony, Director of Technology Transfer said: "This partnership with Eirzyme Ltd will give global reach in the licensed fields and NUI Galway is confident of the valuable contribution it will make to addressing future energy needs. Without the funding support received from Enterprise Ireland, along with other funding agencies, this break-through technology would not have emerged. As a research-intensive organisation, NUI Galway has a strong commitment to supporting technology development leading to technology transfer and commercialisation. In the past 12 months or so the university has executed 8 license agreements across different industry sectors, 3 start-up companies have emerged, and the university looks forward to executing a number of other licensing agreements on other technologies later this year."

Pictured: Dr Daniel O'Mahony, Director of Technology Transfer

Stem cell society meets to advance research into medical treatments

The inaugural conference of the Irish Society for Gene and Cell Therapy (ISGCT) which recently met at the University addressed the challenges impeding the field of gene and stem cell therapy.

Initiated by the directors of the Regenerative Medicine Institute (REMEDI) at NUI Galway, Professor Timothy O'Brien and Professor Frank Barry, the ISGCT was established to advance gene and cell therapy research in Ireland. The aim of the society is to promote advances in gene and cell therapy research for the development of novel therapies to relieve pain and suffering.

"Stem cell and gene therapy have enormous

potential for the treatment of many incurable diseases including heart disease, arthritis and neurological disorders such as spinal cord injury, Parkinson's disease and Alzheimer's. This new society will interact with regulatory agencies to translate advances in this research area into clinical treatment options for patients, with patient safety as the primary motive," said Prof. O'Brien, who leads the gene therapy research programme at REMEDI, and Chair of Medicine at NUI Galway.

The keynote speakers at the conference included: Dr Robert Montgomery, Senior Investigator, Blood Research Institute, Blood Centre of Wisconsin, USA; Prof George Dickson, Director of Research & Chair of Molecular Cell Biology, School of Biological

Sciences, University of London; Dr Aideen Sullivan, Dept of Anatomy & Neuroscience, University College Cork; Dr Jane Farrar, Smurfit Institute of Genetics, Trinity College Dublin; and Dr Gabor Rubanyi, Chief Scientific Officer, Cardium Therapeutics Inc., a medical technology company based in San Diego, California.

REMEDI is the leading centre in Ireland conducting stem cell research and one of a limited number of centres in Europe combining the technologies of stem cell and gene therapy to regenerate and repair tissue. The ISGCT inaugural conference was hosted by REMEDI and included presentations from some of the most talented and innovative investigators working in the field.

Nobel Prizewinner delivers topical lecture

Nobel Prizewinner Dr Stanley Prusiner was a recent guest of the Department of Biochemistry, where he delivered a lecture on 'Prions, Mad Cows and Dementing Diseases'.

Dr Prusiner was awarded the 1997 Nobel Prize in Medicine for his ground breaking discovery of Prion proteins (acronym for proteinaceous infectious particles), and identification of prions as the key agents in dementia-causing neurodegenerative diseases such as Mad Cow disease and Scrapie in animals and the counterpart human diseases Creutzfeldt-Jakob Disease (CJD) and Gerstmann-Straussler-Scheinker syndrome (GSS).

Dr Prusiner's research also demonstrated that these diseases can be passed from one species to another. His findings have also been recognised as having implications in the identification of the cause of other neurodegenerative diseases, such as Alzheimer's disease. Dr. Prusiner is currently the Director of the Institute for Neurodegenerative Diseases and Professor of Neurobiology and Biochemistry at the University of California at San Francisco.

Dr. Prusiner was the guest of the Department of Biochemistry and Biotechnology Society, the latter of which received Science Foundation Ireland funding for the event.



Pictured: Dr Stanley Prusiner during his recent visit to the University

VP for Research honoured by prestigious American Philosophical Society

Nicholas Canny, Professor of History and Academic Director of the Moore Institute at NUI Galway, has been elected to the prestigious American Philosophical Society, becoming only the third Irish member of this generation to become a member of this, the oldest learned society in North America.

Professor Canny, who is also the University's current Vice President for Research, was accorded this honour in recognition of his achievements as an original and innovative historian and of his advocacy of the importance of scholarship in the Humanities to the University and to citizenship.

His election, among the maximum of eight international members chosen in 2007, sees him join Nobel Laureate Seamus Heaney and Thomas Mitchell, former provost of Trinity College Dublin, as fellow members of the Society.

The American Philosophical Society currently has an enrolment of 804 resident and 156 foreign members, of whom close to 100 are Nobel Prize winners.

The Society supports research through a programme of grants, publishes scholarly books and journals, and maintains a library singularly rich in material in the history of science and technology.

GRSA to advance interests of growing research community

The newly formed Galway Research Staff Association (GRSA) was recently launched by Eamon Ó Cuív T.D., Minister for Community, Rural and Gaeltacht Affairs. With close to 340 staff involved in research in the University, the primary function of the GRSA is to promote the interests of contract research staff within the University and in so doing to create a working environment which encourages excellence in research and serves to attract and retain high quality researchers. Practically all those involved in research at the University have a postgraduate qualification with a recent survey by the GRSA identifying over 70% with a PhD qualification.

THE SPECIFIC AIMS OF THE GRSA ARE:

- to provide a collective voice for researchers within the University to articulate and promote their views and to liaise with University authorities.
- to improve the status of researchers on fixed contracts within the University, commensurate with their contribution, experience and responsibilities.
- to encourage greater recognition of the

contribution of researchers through parity of esteem and reward.

- to provide a forum for research staff to meet, network and discuss issues of mutual concern and in so doing to build a cross-disciplinary University research community.

According to the Association, state funding of research centres will fail to deliver results unless experienced research staff is in place, while training of the next generation of PhD students, essential for the Government's strategy for Science, Technology and Innovation, depends upon the direct involvement of these researchers. The Association is also participating in the formation of a national council of research staff which will seek to promote a similar agenda at a national level. Research Staff Associations are already in place in Trinity College Dublin and University College Cork, with plans in place to launch associations in other Irish universities in the near future. Further information is available at www.nuigalway.ie/research_staff_association/ or by emailing grsa@nuigalway.ie