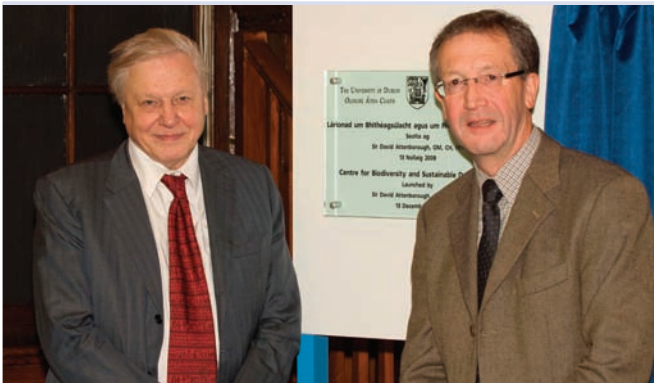


TRINITY COLLEGE DUBLIN
COLÁISTE NA TRÍONÓIDE

Research News

Trinity Research & Innovation University of Dublin - Trinity College Dublin

Sir David Attenborough Opens TCD Centre for Biodiversity and Sustainable Development



Sir David Attenborough and Prof. Mike Jones (Director of the TCD Centre for Biodiversity and Sustainable Development).

Sir David Attenborough officially launched the Trinity College Dublin Centre for Biodiversity and Sustainable Development on 13 December 2008.

Based in the TCD School of Natural Sciences, the Centre will focus on 'Sustainable Development' - development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Biodiversity – the variability among living organisms, among individuals of a species, the range of species and the ecological complexes in which they exist – provides ecosystem services upon which human well-being depends. However biodiversity is being lost at an unprecedented rate, which is eroding our capacity to sustain the planet. It is only through the utilisation of the living environment in a renewable fashion that a sustainable future can be achieved.

Research in the Centre will focus on interdisciplinary studies of environmental, technological, economic and social issues aimed at ensuring a sustainable future for the global society.

Sir David welcomed TCD's initiative and said that "the challenge of biodiversity loss is the greatest problem facing humanity". He emphasised how essential this Centre will be in developing future solutions. Sir David was awarded an honorary degree of Doctor in Letters by TCD on 12 December 2008 at the same time as the first cohort of Biodiversity and Conservation students were awarded their MScs. Meeting these students at the Centre launch, Sir David stressed the crucial role of the Centre and its graduates in developing a sustainable future.

Sir David's visit to TCD included a tour of the Museum Building where he was shown calcareous algal specimens collected on the voyage of the Beagle and sent by Darwin to the TCD Herbarium. He was also shown the newly-restored skeleton of the extinct marine reptile *Attenborosaurus conybeari*, named in his honour, and a specimen of the extinct Great Auk.

Trinity College Dublin and University College Dublin Innovation Alliance

Trinity College Dublin (TCD) and University College Dublin (UCD) have jointly announced a visionary job creation plan as part of the national recovery initiative built around the Smart Economy framework.

The TCD / UCD Innovation Alliance is a radical partnership which will work with the education sector, the State and its agencies, and the business and venture capital communities to develop a world-class ecosystem for innovation that will drive enterprise development and the creation of sustainable high-value jobs. By forming the Innovation Alliance the universities recognise a need to evolve and play a powerful role within such an ecosystem.

The Innovation Alliance has two major components: (i) the TCD / UCD Joint Venture in Enterprise Development will build on the universities' existing technology transfer operations and enterprise facilities. It will include new facilities for pre-competitive research and design, prototyping and process innovation - to help harness and commercialise new ideas, knowledge and inventions. It will also prioritise the establishment of a wider support framework of educational, legal, financial, technical, management and marketing capabilities and support needed to set good new business ideas on their way; (ii) The new 4th level TCD / UCD Innovation Academy will begin the process of defining and mainstreaming innovation as the third arm of the university mission alongside education and research. It will straddle the existing campuses, building on areas of combined strength and individual distinctiveness in the two universities. It will focus particularly on 4th-level PhD training, positioning innovation centre-stage in their courses, facilitating student mobility between campuses and ensuring that the breadth and depth of expertise and resources at TCD and UCD are available to Ireland's future entrepreneurs.

The Alliance envisages building a world-class enterprise corridor between TCD and UCD that will be home for up to 300 new enterprises, with advanced technology centres to support indigenous industry. It will be a prototype for a national ecosystem to establish Ireland as an international hub for innovation. It will be similar in concept to the Irish Financial Services Centre but focussed on the creation and scaling up of indigenous knowledge and technology-intensive enterprises and the attraction of multinational employers that will become the cornerstone for the knowledge economy.

Continued on page 2





Trinity Research News

Continued from front page

The cost of realising the Alliance is set at €650 million over ten years, to be drawn from a combination of sources, including existing planned Government sources, such as SSTI, and industry and private funding. A key objective will be to ensure that the State's investment in science, technology and innovation is used efficiently and with maximum impact on enterprise development and job creation.

Within the universities, work is already under way with the Innovation Academy set to engage with its first students from the existing 4th-level streams in both institutions in September 2009. Over the next ten years the Innovation Alliance is expected to deliver 1,000 4th-level graduates to world-class standards annually and to establish 300 new high-value companies of scale over 10 years. As a result, thousands of sustainable jobs should follow, directly and indirectly, by 2018.

TCD Hosts European Bioenergetics Conference



At EBEC 2008 (from left to right) Hartmut Michel (Max-Planck Institute Frankfurt, Germany and Nobel Laureate in Chemistry 1988), Richard K Porter (Trinity College Dublin, Chairman EBEC 2008), Mary Harney (Irish Minister for Health and Children), Brian Geoghagen and John Walker (Director MRC Dunn Human Nutrition Institute Cambridge, UK and Nobel Laureate in Chemistry 1997).

The 15th European Bioenergetics Conference 2008 (EBEC 2008) was held in the Conference Centre in Trinity College Dublin (TCD) from 19 to 24 July 2008. EBEC Chairman, Richard Porter, TCD School of Biochemistry and Immunology, hosted this biannual event.

Over 530 delegates attended from 60 countries, 150 of whom were postgraduate researchers. There were over 140 lectures, 73 of which were presented through refereed papers in *Biochimica Biophysica Acta* (Bioenergetics). In addition, 70 talks were presented through refereed abstracts. There were over 250 posters, all endorsed by refereed abstracts.

Topics ranged from the nanomachines of bioenergetics, such as the ATP synthase, to disorders of energy metabolism that result in neurological diseases, and from photosynthetic reaction centres to the efficacy of anti-ageing drugs.

During the Conference, the EBEC 2008 Mitchell Medal was presented to David G. Nicholls (Buck Institute of Ageing Research, California, USA) for his significant contribution to the field of bioenergetics.

Delegates also attended the EBEC 2008 Banquet in the Guinness Storehouse on 22 July 2008. Guest of honour, Irish Minister for Health and Children, Mary Harney TD, gave a well-informed and witty after-dinner speech which was one of the highlights of EBEC 2008.

Science Foundation Ireland (SFI), the United Mitochondrial Disease Foundation (UMDF), the International Union of Biochemistry and Molecular Biology (IUBMB) and Fáilte Ireland were the major sponsors of the event.

The next EBEC conference will be held in Warsaw, Poland, in 2010.

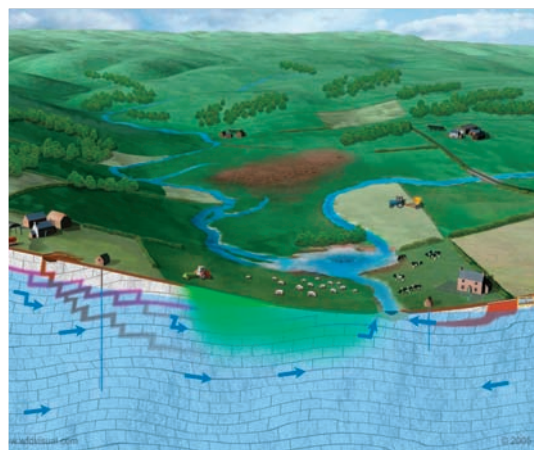
TCD Research into Water Pollution Pathways

Bruce Misstear, Trinity College Dublin School of Engineering, is investigating the movement of water pollutants along different flow pathways, as part of a €2 million Environmental Protection Agency (EPA) project.

The approach to managing and protecting water resources in Europe is changing with the introduction of the Water Framework Directive. Previously, groundwater and surface water resources were generally assessed and managed separately, as were water quality problems affecting these resources. With the new Directive, an integrated approach to managing water is now being adopted, one that acknowledges the links between groundwater and surface water systems, and their dependent ecosystems. Such an integrated approach to water management requires an improved understanding of how the different elements of the hydrological cycle interact, and how human activities can impact on groundwater, surface water and ecological receptors.

Under its Science, Technology, Research and Innovation for the Environment (STRIVE) Programme, the EPA has commissioned this five-year project to research the movement of pollutants along surface and subsurface pathways. The research will consider migration and attenuation of pollutants from sources such as industries and agriculture, to receptors including aquifers, rivers, lakes and groundwater-dependent ecosystems. Key research activities will include detailed hydrological studies of selected catchments, mathematical modelling of pollutant transport along the different flow pathways, and the development of a catchment management tool.

TCD researchers Bruce Misstear, Laurence Gill, Paul Johnston and Norman Allott are working along with project partners in Queen's University Belfast and University College Dublin. The research is due to be completed by mid-2013.

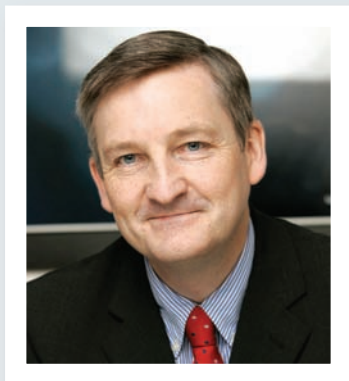


The graphic shows migration of pollutants to a river via pathways in a fractured limestone aquifer (www.wfdvisual.com)



Trinity Research News

Welcome from the Associate Director of Trinity Research & Innovation



Dr James Callaghan

Welcome to this edition of *Trinity Research News*. On behalf of myself and the Dean of Research I would like to take this opportunity to update readers on the changes that have been taking place in Trinity Research & Innovation.

The Office of Trinity Research & Innovation (TR&I) is the unit in College that promotes and manages the interface between College researchers, funding agencies and industry. The Office now comprises four sections each of which is dedicated to a specific role as outlined below. TR&I now consists of a total of 21 staff organised into the four sections. The Office underwent significant change during 2007/08.

Research Development Section

The primary role of the Research Development Section is to support the development of research in College. It disseminates information from research sponsors to the research community, including information on aspects such as eligibility criteria, internal College requirements and internal sign-off processes. The section deals only with Research applications, that is with those applications where it is anticipated that the resulting contract with the College will take the form of a research contract, rather than a service contract or educational/curriculum development grant.

In addition, the section also co-ordinates the institutional research proposals and is involved in the continued development and implementation of the College's Research Strategy. There is a total of seven full-time staff in this section.

Research Contracts Section

The Research Contracts Section is responsible for the review and execution of all pure research funded contracts from the perspective of financial exposure and liability ensuring College's due diligence and compliance in contractual matters. There are currently three full-time staff in this section.

Technology Transfer Section

The Technology Transfer Section is responsible for the capture, protection and commercial exploitation of intellectual property (IP) arising from College's research. Activities include review of IP clauses in research contracts, patent filing and prosecution, licensing of College IP, and the formation of campus companies where appropriate. The section also provides an industry liaison service to introduce companies to College researchers and to explore opportunities for research engagement and/or commercial exploitation of College IP.

Of the seven staff in this section, five are supported under Enterprise Ireland's Technology Transfer Strengthening Initiative, to enable College to respond to the increased creation of intellectual property arising from the significant increase in research funding. Of these five staff, four are technology transfer Case Managers who are individually allocated a portfolio of researchers within their field of technical expertise. They are supported by a patents and commercialisation database administrator.

Entrepreneurship Section

The role of the Entrepreneurship Section is to help create an entrepreneurship culture within College through awareness programmes, entrepreneurship training and through the MBA Workout Programme. Based at the Trinity Technology and Enterprise Campus (TTEC) in Pearse Street, there is one full-time member of staff supported by a part-time joint appointment with the Business School.

Overview of Scale of Activities

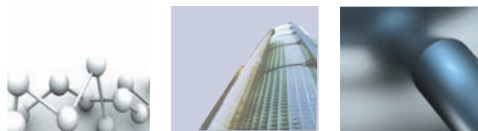
Key achievements during the previous academic year include:

- the Research Development Section processed a total of 1,227 research and funding applications representing a requested amount of €316 million;
- the Contracts Section processed a total of 684 contracts valued at over €126 million;
- the Technology Transfer Section was responsible for filing 24 patents, 6 commercialisation licences and 2 spin-out companies;
- the Entrepreneurship section registered 43 postgraduates and researchers onto the Entrepreneurship Programme and supported 8 projects on the MBA workout programme.

Looking Forward

Over the coming year, I look forward to continue to improve the level of service provided by TR&I to researchers and to that end I would welcome your views, ideas and suggestions on how the Office can better support your endeavours.





Premio R.O.S.A. Awarded to TCD Chemist

Dr Silvia Giordani (left) receiving the 2008 Premio R.O.S.A. from Prof. Maria Teresa Scajola. (Photo: Estella Marcheggiano)

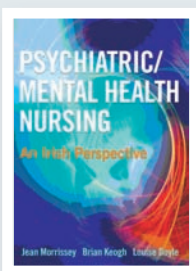
Silvia Giordani, TCD School of Chemistry, was awarded the 7th Premio R.O.S.A. or Risultati Ottenuti Senza Aiuti (Results Obtained Without Help). This is an annual award from successful women to successful women promoted by the Canova Club of Rome to recognise the professional activities of women in fields that are still dominated by men: economics, finance, management, entrepreneurship and science. Dr Giordani was one of five finalists for the award which she received at a ceremony in Tempio di Adriano in Rome on 22 May 2008.

The Premio R.O.S.A. has already drawn considerable media attention including a four-page feature interview with Dr Giordani in the July-August 2008 issue of *Top Management Magazine*.

Dr Giordani joined the TCD School of Chemistry as a research lecturer in September 2007, and her research interests are primarily in supramolecular chemistry and nanotechnology.

She is an SFI President of Ireland Young Researcher (PIYRA) and has established her laboratory in the TCD Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN) where she is currently running an international and interdisciplinary research group which includes three Italian postgraduate students, an Irish postdoctoral fellow and an Indian postdoctoral fellow.

TCD Mental Health Nursing Textbook



Lecturers in mental health nursing at the TCD School of Nursing and Midwifery Studies are editors of a new textbook: *Psychiatric / Mental Health Nursing: An Irish Perspective* (2008).

Divided into four sections, this book includes contributions from key psychiatric / mental health nursing academics, clinicians and experts in Ireland as well as a foreword by Professor Phil Barker. It introduces the reader to the foundations of mental health

nursing practice and the therapeutic modalities utilised in practice. The book uses a nursing care focus to describe the range of conditions encountered in clinical practice. It also details a number of emerging contemporary issues which influence psychiatric / mental health nursing in Ireland today such as service user involvement, sexuality and mental health, clinical supervision, liaison psychiatric nursing and transcultural mental health nursing. The book also introduces and discusses the Mental Health Act 2001.

With its use of reflective questions at the end of each chapter, *Psychiatric / Mental Health Nursing* is a valuable resource not only for undergraduate and postgraduate mental health nursing students but for clinical practitioners as well. Edited by Jean Morrissey, Brian Keogh and Louise Doyle, it is published by Gill and MacMillan.

TCD and RCSI National Audit of Stroke Care in Ireland

Des O'Neill and researchers in the Trinity College Dublin School of Medicine in conjunction with the Royal College of Surgeons in Ireland received funding of €650,000 from the Irish Department of Health and Children and the Irish Heart Foundation to undertake a pioneering Irish national audit of stroke care.

Stroke is a major cause of death and disability in Ireland – up to 30,000 survivors have significant disability. 80% of strokes occur in those over the age of 65. Despite major advances in stroke care such as stroke units and thrombolysis (clot busting), it has been a relatively neglected illness. The first acute stroke service in Ireland developed in the Meath Hospital in 1995.

This audit was unique in providing insight into the full spectrum of stroke prevention and care across community and hospital services.

Major deficits in stroke prevention, treatment and rehabilitation were found at all levels of stroke services in Ireland. Primary medical care lacked screening and management programmes: community therapy and nursing services were under-staffed and generic in nature. Hospital services were deficient in terms of stroke units, rehabilitation staffing and quality of care. Patients who had been discharged to both community and nursing homes described deficits in services, communication and follow-up. The most commonly identified issues were poor availability of services, especially physiotherapy, speech and language therapy, and emotional support. Inadequate communication with patients and carers, and between services, was a common finding.

The audit findings have set up a major benchmark for the future development of stroke services in Ireland, and lay the foundations for Prof. O'Neill to further develop research in this area.

The Irish National Audit of Stroke Care was published in 2008, and is available on the Irish Heart Foundation website: www.irisheart.ie/iopen24/pub/strokereports/stroke_report.pdf

Trinity College Dublin Awarded €11m EU FP7 Funding

TCD researchers have obtained contracts worth €11.6 million over the first two years of the European Union Seventh Framework Programme (EU FP7). This is the highest amount received by an Irish education institution according to a recent Enterprise Ireland report on Irish involvement in FP7.

The overall success rate for Ireland for the period December 2006 to September 2008 was 23.66%, which is above the European Member State average. The report includes a statement from the European Commission that: 'Ireland has moved up from the second Success Rate quartile (<20%) to the first and highest quartile'.

Continued on page 5



continued from page 4

Successful applicants include Stephen Connon, TCD School of Chemistry, who obtained one of only two European Research Council Starting Independent Researcher Grants awarded to Ireland. Dr Connon previously spent two years at the Technische Universität Berlin as an Alexander von Humboldt fellow. While there he studied the design of new olefin metathesis catalysis. His research interests include organocatalysis and the discovery of novel synthetic methodology.

TCD researchers are encouraged to apply for relevant programmes and to avail of funding provided by Enterprise Ireland. This includes up to €3k for travel support to facilitate multiple visits to potential research partners, up to €25k for proposal preparation support for academic coordinators, and up to €100k for proposal preparation support for strategic approaches by research centres/groups.

WiSER Honours Oxford Professor of Astrophysics



The Centre for Women in Science and Engineering Research (WiSER) celebrated the conferral by Trinity College Dublin of an honorary degree on Dame Jocelyn Bell Burnell at a Christmas Coffee Reception on 12 December 2008.

Dame Jocelyn Bell Burnell started her academic career by failing the examination required for students wanting to pursue higher education in British schools. Dame

Jocelyn's parents very strongly believed in educating women and sent her to a boarding school to continue her education. She graduated with a physics degree from Glasgow University, followed by a PhD from the University of Cambridge in Radio Astronomy. During her time at Cambridge, she was involved in the discovery of pulsars, opening up a new branch of astrophysics. Dame Jocelyn is currently Visiting Professor of Astrophysics at the University of Oxford and, in 2008, became the first female President of the UK Institute of Physics. She describes herself as "a role model, a spokeswoman, a representative, and a promoter of women in science in the UK". She advises young women scientists to believe in themselves and in their work from the beginning.

Stimulated by questions and comments from the audience, Dame Jocelyn identified UK good practice which could help increase the number of women in the area of Science, Engineering and Technology (SET) in Ireland. The difference between the number of women who have applied for a specific position and the number of women who have been shortlisted could be analysed. If the difference in the number applying for positions does not replicate the proportion of women in the talent pool, action must be taken to encourage well-qualified women to apply. In addition, the UK Athena Swan Award scheme could be integrated in Ireland. The scheme recognises and celebrates good practice in recruiting, retaining and promoting women in SET in higher education and research. Also, training courses could be provided for Heads of Unit to help them manage the different types of workers that make up a research or academic unit.

Trinity College Dublin Demonstrates Latest Research



Trinity Research & Innovation has hosted two Open Demonstration Events in the last six months. On 06 November 2008, some of the latest technologies developed by Trinity College Dublin (TCD) researchers in the area of Information and Communications Technology (ICT) went on show in the Science Gallery at TCD. On 12 March 2009, 16 projects from the bioscience, medical devices and drug development areas were demonstrated.

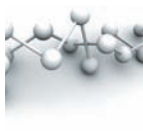
Both events showcased leading-edge TCD research ready for commercialisation. It also promoted collaboration with industry and the investment community. The Open Demonstrations were attended by people who come from a variety of business sectors, ranging from one-man Irish businesses to global leaders such as Microsoft and Intel.

Commenting on the importance of the events, Trinity Research & Innovation Associate Director, James Callaghan, said: "They showcased a sample of the cutting-edge technologies that we have at Trinity. We're looking for people to help us take these to market, and we ran these events in an interesting way – no slides, no lectures, just exciting people and exciting technologies".

The informal format appealed to both researchers and investors, and this facilitated a one-on-one dialogue and instant feedback between the TCD academics and the business community.

Trinity Research & Innovation plans to build on the success of the open demonstration format and host more events in the future.





Trinity Research News

TCD Leads Team Awarded €1.6m for Biodiversity Research



SIMBIOSYS project team dwarfed by mature Miscanthus (bioenergy) crop (from left) Mark Emmerson (UCC), Tas Crowe (UCD), Lisa Dolan (UCC), Jane Stout (TCD), Mike Jones (TCD), Jens Dauber (TCD).

Trinity College Dublin School of Natural Sciences is leading a €1.6 million research project funded by the Irish Environmental Protection Agency STRIVE Programme on the 'Sectoral Impacts on Biodiversity and Ecosystem Services' (SIMBIOSYS - www.simbiosys.ie).

The project began in April 2008 and will run for four and a half years. It will study the impact of the cultivation of bioenergy crops, of new guidelines for road landscaping and of innovative aquaculture practices in Ireland on genetic, species and landscape biodiversity and the ecosystem services they provide. This in particular includes pollination, biological pest control, carbon sequestration and resistance to alien species invasion. Those ecosystem services are of both ecological and economic value for Irish society. The project will help to identify priorities for Irish agricultural and environmental policy and biodiversity conservation.

SIMBIOSYS is multi-disciplinary and involves close collaboration between researchers in three Irish universities: Trinity College Dublin (TCD), University College Cork (UCC), and University College Dublin (UCD). Dr Jane Stout, TCD School of Natural Sciences, is overall project co-ordinator, and Dr Jens Dauber, TCD School of Natural Sciences, is project manager. SIMBIOSYS is providing training for five PhD students, two of whom are based in TCD. In addition, each university is hosting a postdoctoral fellow.



Trinity International Development Initiative on Doctoral Training



The Trinity International Development Initiative (TIDI), which draws on all three TCD faculties, has been awarded €1.5 million under the Programme for Strategic Cooperation between Irish Aid and Higher Education and Research Institutes 2007-11 for its programme Doctoral Training for Development in Africa.

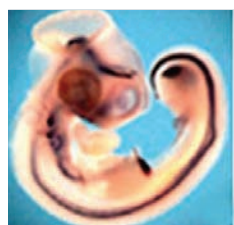
TIDI is an institutional platform with which TCD is expanding its already considerable engagement with global development research and education issues.

As the first major initiative of the platform, the new programme focuses on doctoral-level training, reflecting the university's strength in this area and drawing on the experience of consultations with African partner institutions. These consultations confirm a growing awareness of the importance of fourth-level education in strengthening African economic and social prospects, and the fact that, despite some exemplary projects, too little is known about what makes for a successful North-South collaboration in strengthening doctoral-level research capacity in Africa.

The planned activities will employ three different partnership models to deliver doctoral training mainly to African students and mainly in Africa in three key disciplines, notably health but also social and natural sciences. The delivery process will not only train researchers and future research supervisors but also directly strengthen the capacity of participating institutions through learning by doing. Analysis, informed by parallel experiences elsewhere, will facilitate future expansion to additional partners and disciplines.

In addition, doctoral students based in Ireland will be encouraged to shift their attention to research topics relevant to Irish Aid. A new postgraduate module will train researchers in methodological challenges of research in developing-country environments.

“Chick Atlas” at TCD to Give Clearer Picture of Foetal Development



Chick embryos at a stage when the limbs are just developing showing the territories where two important regulatory genes are expressed (dark staining). The genes encode secreted signalling molecules (left: Fibroblast growth factor 8, right: Sonic hedgehog) without which the limbs will not form properly: Genetic changes that cause alteration in where Sonic hedgehog is expressed in the embryo have been implicated in a number of human limb malformations. Scale bar: 1mm

The Trinity College Dublin School of Natural Sciences is part of a £2.6 million collaborative effort to gain a greater understanding of disease and birth defects. Using a new imaging database, known as the “Chick Atlas”, they will map the expression of genes that control development. In the initial stages, the “Chick Atlas” will map approximately 1,000 of around 18,000 chick genes predicted from the chicken genome sequence.

Led by Dr Paula Murphy, the TCD Developmental Biology Group is working together with the Medical Research Council (MRC) Human Genetics Unit (Edinburgh), the Roslin Institute at the University of Edinburgh, University College London and University of Bath to catalogue thousands of three-dimensional images of chicks taken during the first 10 days of their development. The early stages in a chick embryo are essential in the development of the nervous system, heart and limbs. Images from the “Chick Atlas” will show not only where genes key to human biological make-up are switched on but also when they are turned on and off to ensure healthy development. In the longterm, it could also have implications for the treatment of diseases such as cancer as it will provide insight into the role genes play when cells divide and proliferate.

The TCD group will contribute by generating data on genes involved in guiding development of the limbs and facial region. They have already produced a comprehensive database funded by Science Foundation Ireland showing the activity of genes in the mouse embryo. Although the structures that form in chick and mouse embryos are very different, the genome sequences show that many of the genes that guide development are very similar. The use of these genes will now be compared.

Funding for this research was provided by the UK Biotechnology and Biological Science Research Council.

IdentiGEN Wins Trinity College Dublin Innovation Award 2008



(left to right) Ruairi Quinn TD; Prof. Patrick Cunningham, IdentiGEN; and Dr John Hegarty, TCD Provost.

The Trinity College Dublin Innovation Award 2008 was won by the founders of IdentiGEN, Prof. Patrick Cunningham, Dr Ronan Loftus and Mr Ciaran Meghen.

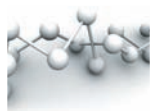
IdentiGEN was founded as a result of a spin-off company from world-class research led by Prof. Cunningham's research group in the TCD Institute of Genetics where its genetic identification methodology was developed. It emerged as a result of research undertaken by Mr Meghen as part of his doctoral studies where the emergence of BSE (mad cow disease) in the UK focused attention on opportunities to employ genetic technologies to assure consumers of the safety and integrity of meat products.

The company acquired enabling technology from TCD and pursued the technology further into proof-of-concept testing and commercial deployment. It pioneered the commercial-scale integration of sophisticated genetic technologies with industrial-scale processing and retailing of meat, and became the first company to deliver and implement an operational and scaleable DNA traceability solution for 100% of the fresh beef distributed by a national food retailer as well as the first anywhere to leverage this technology into consumer markets. In the context of recent food safety crises, being able to offer reassurance to customers can build trust with retail customers and consumers.

IdentiGEN achieved a major milestone towards its US market acceptance in October 2007 when its DNA TraceBack system achieved stringent quality by the United States Department of Agriculture to gain designation as one of only 36 USDA Process Verified Programs. The designation provides valuable third-party verification of the reliability and consistence of IdentiGEN's DNA TraceBack system.

On receiving the award, Mr Meghen said: “This award is very much appreciated by all who work in IdentiGEN. Our central technology, DNA Traceability, is a world first, developed here in Trinity College. It is the gold standard in ensuring food security, and IdentiGEN has made it available and affordable in a highly-competitive industry. This award will further strengthen IdentiGEN's position as the world leader in this field”.

The 2007 Innovation Award was won by Stephen Collins and Hugh Reynolds for their spin-out company Havok, a world leader in the development and sale of real-time physics and animation software to the games industry.



Trinity Research News

Trinity Research & Innovation

Research Development: As liaison office between TCD's research and Irish and international funding agencies, the Research Development team advises on funding for research projects and assists researchers with funding submissions in order to ensure compliance with agency and College requirements. This division also coordinates the institutional research proposals. Please note that research applications should be sent to the Research Development Office at least two working days before applicants need to submit them to sponsors. [Enquiries to research.office@tcd.ie](mailto:research.office@tcd.ie)

Contracts: The Contracts team is responsible for the review and execution of all research-related and service contracts and tenders (funding agencies and other third-party sponsors) from the perspective of financial exposures and liability, ensuring College's due diligence and compliance in contractual matters. [Enquiries to research.contracts@tcd.ie](mailto:research.contracts@tcd.ie)

Technology Transfer: This division supports the capture, protection and exploitation of Trinity College Dublin's innovative research results. The Technology Transfer team also promotes the creation of cooperative linkages between TCD and the world of industry, in order to help researchers to find commercial options for their ideas and inventions and to attract companies towards new areas of TCD's research. [Enquiries to mjwoods@tcd.ie](mailto:mjwoods@tcd.ie) OR industry.liaison@tcd.ie

Entrepreneurship: Working under the College's Director of Entrepreneurship through the Entrepreneurship Programme, this division has a wide range of activities to support new ventures spinning off from research and teaching in TCD, including a comprehensive training programme and the development of national and international networks of innovation. [Enquiries to bnoone@tcd.ie](mailto:bnoone@tcd.ie)

Trinity Research & Innovation is located in the O'Reilly Institute, Trinity College, Dublin 2. Entrance is through the Hamilton Building. Opening hours are from 9.00 to 13.00 and from 14.00 to 16.00, Monday to Friday.



Trinity Research & Innovation
O'Reilly Institute
University of Dublin
Trinity College, Dublin 2

Phone: +353 1 896 1155
Fax: +353 1 679 8039
Email: innovation.centre@tcd.ie

www.tcd.ie/research_innovation

Trinity Research & Innovation: Contact Details

| Name | Position | Email | Tel: (+353 1) |
|----------------------|--|--|---------------|
| Dr David Lloyd | Dean of Research | dean.of.research@tcd.ie | 896 1398 |
| Dr James Callaghan | Associate Director, Trinity Research & Innovation | jcallag@tcd.ie | 896 1427 |
| Sarah Lardner | Administrator (9-1 Mon-Thurs) | slardner@tcd.ie | 896 1155 |
| Michelle Kelly | Executive Officer | kellym8@tcd.ie | 896 2153 |
| Doris Alexander | Research Development Officer | doris.alexander@tcd.ie | 896 2412 |
| Deirdre Caden | Research Projects Officer | cadend@tcd.ie | 896 8520 |
| Melissa Caffrey | Contracts Executive Officer | rescon@tcd.ie | 896 3751 |
| Audrey Crosbie | Industry Liaison Manager | acrosbie@tcd.ie | 896 3839 |
| Dr Gordon Elliott | Technology Transfer Case Manager - Translational Science | gordon.elliott@tcd.ie | 896 4151 |
| Dr David Fitzpatrick | Research Projects Officer | fitzpadg@tcd.ie | 896 8483 |
| Caroline Forsyth | Research Projects Officer | forsytc@tcd.ie | 896 3894 |
| Esther Fortune | Contracts Projects Officer | fortunee@tcd.ie | 896 3756 |
| Dr Camilla Kelly | Research Projects Officer | camilla.kelly@tcd.ie | 896 8563 |
| Dr Oonagh Kinsman | Research Projects Officer | oonagh.kinsman@tcd.ie | 896 8562 |
| Dr Graham McMullin | Technology Transfer Case Manager - Physical Sciences | graham.mcmullin@tcd.ie | 896 1711 |
| Bridget Noone* | Enterprise Executive | bnoone@tcd.ie | 677 5655 |
| Aideen O'Dochartaigh | Acting OIP Accountant | odochara@tcd.ie | 896 8545 |
| Dr Peter Olwell | Technology Transfer Administrator | peter.olwell@tcd.ie | 896 8517 |
| Mary Tracey | Contracts Manager | traceym@tcd.ie | 896 3751 |
| Maria Treanor | Research Projects Officer | maria.treanor@tcd.ie | 896 2870 |
| Dr Emily Vereker | Technology Transfer Case Manager - Life Sciences | emily.vereker@tcd.ie | 896 4152 |
| Dr John Whelan | Technology Transfer Case Manager - ICT | whelanj@tcd.ie | 896 3269 |
| Dr Margaret Woods | Technology Transfer Manager | mjwoods@tcd.ie | 896 2159 |

* Based in the Trinity Technology and Enterprise Campus, Pearse Street.