

## **Report of the President University College Dublin National University of Ireland, Dublin**

September 2009 - August 2010

For presentation to the Governing Authority of University College Dublin, National University of Ireland, Dublin at its meeting on 14 December 2010.

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Image on front cover: John Henry Newman, "The Young Rector", by MAGAR

- Images on page 1

  1. Dr Mary Robinson was presented with the inaugural UCD Hume

  Medal at the *Irish in Britain: Conversation with the Diaspora* global forum, held in London in November 2009
- 2. President of The Democratic Republic of Timor-Leste, Dr José Ramos-Horta, who was conferred with an honorary doctorate in March 2010
- 3. Cong Xu, pre-masters student in Accounting, pictured at the launch of the UCD Strategic Plan to 2014 Forming Global Minds
- 4. The Minister for Children and Youth Affairs, Mr Barry Andrews TD, was at UCD in April 2010 to open the new extension to childcare facilities at UCD Oakmount Crèche. This now offers services for up to 110 children of university students and staff, and the local community. Minister Andrews is pictured with Bereket Mengesha Taye, Harry Judge and Nicola Little
- 5. In the company of more than 20 Irish Olympians, UCD launched its bid to become a pre-Olympic training base-camp for one of the international teams competing in the London 2012 Olympics. Pictured at the launch (I-r): the Minister for Tourism, Culture and Sport, Mary Hanafin TD, with Irish athletes Brendan O'Kelly and Jimmy Reardon, who competed in the 1948 Olympics (the last time the Olympics were hosted in London)
- 6. Chloe Doyle, Oonagh Kerr and Andrej Pacher measuring protein concentration during a biochemistry experiment at the UCD Science Summer School, as part of the Unilife programme. In June, approximately 250 students entering 6th Year were able to explore academic and non-academic opportunities available at UCD, through the UniLife Summer School
- 7. UCD Ladies' Boat Club celebrates the Irish Senior Women's title at the Skibbereen Regatta, National Rowing Centre in Cork



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## Introduction by Dr Hugh Brady, UCD President

This year saw the launch of UCD's new Strategic Plan to 2014 Forming Global Minds.

UCD and its graduates have played an unparalleled role in the development of an independent and successful Irish State. So many of Ireland's leaders, whether in politics, the public service, the arts, sport, business or the professions, spent their formative years at UCD - a track record of which UCD can be justifiably proud.

Five years ago UCD launched a Strategic Plan that contributed to Ireland's future. The plan delivered the radically reformed *UCD Horizons* curriculum, a new research strategy, a new campus development plan and the establishment of graduate schools and structured PhD programmes to support fourth level training.

The new plan sets out the strategic direction for UCD for the next five years, a time which will be among the most challenging in our 155 year history. A defining characteristic is to build on our excellence in teaching and research and to place greater emphasis on the impact which these activities have on the economic, environmental, social and political life of the nation. Now, in a time of national and global difficulty, UCD is once again committing its intellectual resources to the rebirth of economic prosperity in Ireland.

It is critical in these challenging times that Ireland maintains and develops the outward-looking, internationally aware focus which has been a hallmark of our development as a nation. UCD will be in the vanguard of this development. While remaining distinctively and uncompromisingly Irish, UCD will provide opportunities for students and staff to gain experience in the wider world, will welcome international students and staff to Ireland, and will provide a resource for the Irish diaspora worldwide.

The plan will establish innovation as a third, constitutive pillar of UCD's activity and identity, building on the achievements in education and research. This will simultaneously challenge our teachers and researchers to translate excellent education and research into contexts where they may be expected to have a high impact, all the while supplementing more traditional educational concerns with the development of innovative and entrepreneurial capacity amongst our students. The university's ambition to link education, research and innovation more effectively will enable an increasing number of students to convert knowledge, ideas and inventions into the development of life enhancing products, services and policies in a manner that will enrich all aspects of social and economic life in Ireland and beyond.

A key driver of innovation is the establishment of an Innovation Alliance in partnership with Trinity College, Dublin (TCD), including unprecedented levels of collaboration with government and industry. The *Innovation Alliance* is intended to be part of a wider national recovery programme leading to, in the government's own terms, a 'Smart Economy', within which our students and graduates will flourish.

UCD's Strategic Plan will also see UCD building on its major all-island and international collaborations. Through UCD's membership of the *Universitas 21* network of global research universities we will develop programmes which will offer unprecedented opportunities in terms of student mobility, global research collaborations and development of university management expertise.

Research at UCD will be focused strategically on priority themes that capture the range of current UCD research activity.

The plan will strike an appropriate balance between contributing to the regeneration of economic prosperity and offering a vision which develops new knowledge and challenges accepted truths.

Our plan marks a milestone in our continuous and self-correcting strategic planning process. We are committed to service through excellence in education, research and innovation, and this report sets out how we are delivering on that commitment.

### **Key Initiatives**

#### **Education**

- Further develop the UCD Horizons modular undergraduate curriculum:
- Ensure newly appointed staff receive appropriate training and professional development;
- Create unique opportunities and supports for highly talented students through the UCD Ad Astra Academy;
- Establish the UCD Institute for Learning Innovation and Academic Development to support UCD's growing community of teaching innovators and educational researchers.

#### **Developing UCD's profile**

- Grow graduate education (33% of student body);
- Continue to widen participation for students from socio-economically disadvantaged backgrounds, mature students, students with disabilities and part-time students (25% of student body);
- Attract greater numbers of international students (25% of student body).

#### Research and PhD training

UCD has prioritised four major research themes which build on the university's established or emerging research strengths, dovetail with national research policy objectives,

**CONTINUED ON PAGE 4** 



## 'So many of Ireland's leaders, whether in politics, the public service, the arts, sport, business or the professions, spent their formative years at UCD - a track record of which UCD can be justifiably proud."

and contribute to the preservation and exploration of Ireland's cultural heritage and the development of solutions for current global challenges. These are:

- Earth Sciences, Energy and the Environment
- Global Ireland
- Health and Healthcare Delivery
- Information, Computation and Communication
- UCD will support the ongoing development of scholars and research programmes in these areas.
- Structured PhD programmes will be built around all major research programmes.
- UCD will further refine its research institute model to foster large multidisciplinary and inter-disciplinary research programmes, including the development of three new institutes:
  - UCD Earth Sciences Institute
  - UCD Complex Adaptive Systems Laboratory
  - UCD Charles Institute

#### Innovation

- UCD will produce a new breed of innovative, entrepreneurial PhD graduate through the TCD/UCDInnovation Academy.
- We will establish a TCD/UCD joint venture in enterprise development, which will support commercialisation of university generated research findings, assist development of spin-in companies and foster partnerships with industry.
- UCD will develop strategic partnerships with relevant government agencies, local authorities and other stakeholders to maximise the impact of the State's investment in research on economic development.

#### **Finance**

- UCD will expand revenue from academic, commercial and philanthropic areas, reducing reliance on state funding.
- UCD will provide better alignment of our cost base with available revenues.

#### **Human resources**

- UCD will further develop career pathways and opportunities for all staff.
- The Performance Management Development System (PMDS) process will advance our leadership and mentoring programmes.

#### **Campus infrastructure**

The new Gateway Campus Masterplan will guide the development of Belfield as a living, green and sustainable

- We will complete the €300 million capital development programme that includes:
  - Redevelopment of UCD's Science Centre;
  - UCD Sutherland School of Law;
  - UCD Charles Institute;
  - New Student Learning, Leisure and Sports Centre;
  - Development of a support facility for international and graduate students;
  - Refurbishment and expansion of student residences:
  - National Institute for Bioprocessing Research and Training (NIBRT).
- UCD will complete a masterplan for and begin redevelopment of the UCD Newman Library Complex and UCD Michael Smurfit School of Business.
- The university will partner with the State and philanthropists to put in place the key infrastructure necessary to maintain UCD's international competitiveness and maximise its impact on Ireland's future development.

#### Conclusion

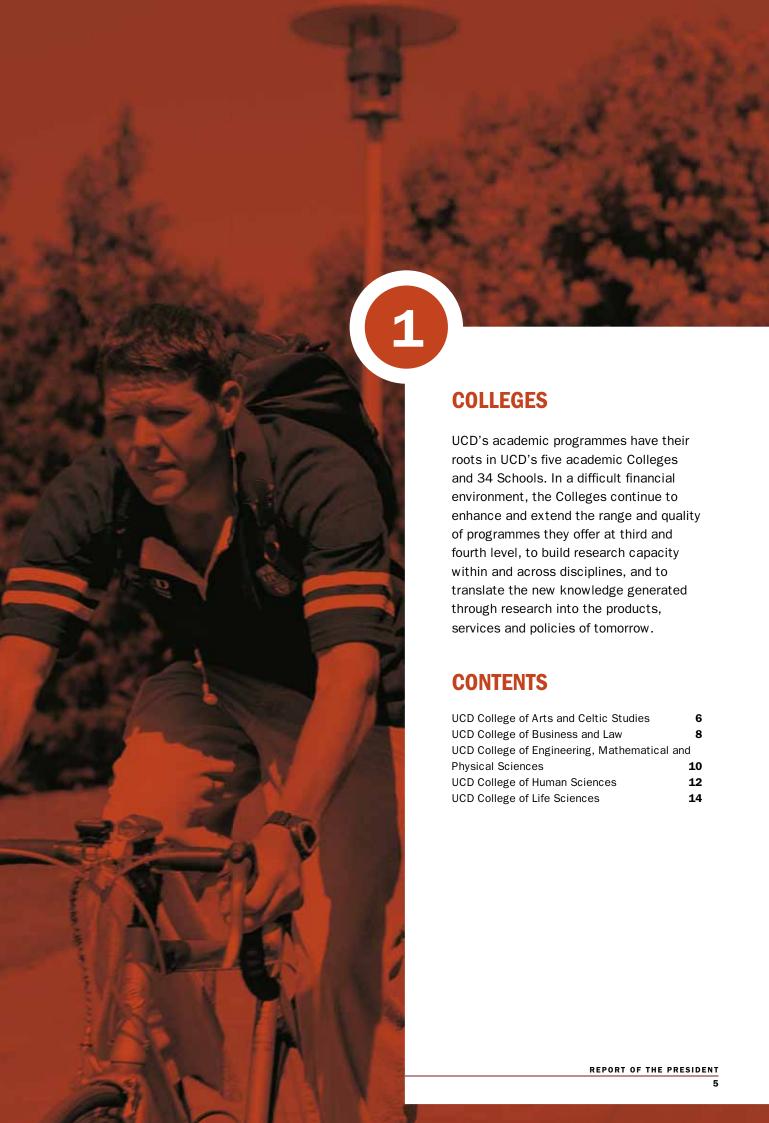
In the formulation of the Strategic Plan and in carrying out the duties required of providing a world class education, UCD has benefitted greatly from the guidance and experience of the Governing Authority under the chairmanship of Dermot Gallagher. Their advice and support have been invaluable to the Senior Management Team as we work to achieve UCD's strategic vision.

We can look back on another highly successful year, one that has advanced knowledge through high-quality research, scholarship and teaching. By working together, the new Strategic Plan will guide us as our students and alumni continue to build our reputation worldwide.

Hugh R. Brady

**President** 

**Hugh Brady** 



### Strategic plan

The UCD Strategic Plan presents significant challenges and opportunities for the UCD College of Arts and Celtic Studies. Programmes introduce students to languages, histories and cultures and these foster international awareness. Additionally, the number of non-programme students taking electives in languages (including Irish) continues to grow. The introduction of innovation as a third platform of UCD activity challenges the College to broaden the concept of innovation by highlighting the relationships between cultural creativity and scientific and technical transformation. In October 2009 several schools participated in the first Innovation Dublin Week, highlighting the dynamic interactions between technologies, arts and culture.

#### **Developments to date**

The 2010 BA Programme Plan, developed in conjunction with the College of Human Science, is designed to enhance quality teaching and learning, and encourage the engagement of traditional, non-traditional and international students. The plan has been guided by the views of BA students, who participated in a focus group in January 2010.

The College has enhanced the student learning environment. Despite rising student numbers, and a reduction in academic staff, the College will continue to offer small-group teaching; and a study-skills module will assist students in becoming independent learners. The award of the President's Teaching Award to Dr Fionnuala Dillane, UCD School of English, Drama and Film, will support the expansion of a drop-in centre which assists students to improve their written assignments. Refurbishing teaching spaces to support active learning remains an urgent priority. The state-of-the-art Teanglann, which re-opened in 2009, is an example of the type of digitally-enabled modern teaching space that is needed to facilitate interactive student learning.

Enrolment in taught master's programmes increased by an impressive 30% in 2009/10, and the Graduate School began a review of master's programmes with a focus on developing thematic degrees. While the numbers of doctoral students and post-doctoral researchers remained strong, the sharp reduction in funding for these programmes threatens to reverse the expansion in early-career researchers, which has enlivened all parts of the College in recent years. This is a significant cause of concern.

Research continues to flourish both in the form of traditional monographs and articles, and new digital media. Highlights of the year included the publication of the nine-volume *Dictionary of Irish Biography*, edited by James McGuire and James Quinn, adjunct professors in the UCD School of History and Archives; the publication of 10 monographs by members of the UCD School of English, Drama and Film; and an impressive Festschrift, Relics of Auld Decency: Archaeological Studies in Late Prehistory, honouring Barry Raftery, the late emeritus professor of Celtic Archaeology. The twentieth anniversary of the fall of the Berlin Wall was marked by a major international conference organised by the UCD School of Art History and Cultural Policy and the UCD School of Languages and Literatures. A conference on Tara in October 2009 attracted 250 attendees in UCD, while an additional 2,000 people throughout the world participated via the Web. The Irish Virtual Research Library and Archive (IVRLA) – a partnership between the College and UCD Library to make research resources at UCD available in digital form - funded by PRTLI - has made over 170,000 digital objects available from UCD collections. IVRLA also supported a series of pilot research and outreach projects in areas as diverse as Joyce's Dublin, history of science and history of medicine, poetry and publishing, and cultural heritage and contemporary folklore. These showcased UCD's contribution to disseminating and preserving Ireland's heritage.

#### The UCD College of Arts and Celtic Studies consists of eight Schools:

College Principal: Professor Mary E. Daly Deputy Principal: Professor Liam Mac Mathúna Director of Graduate School: Dr Marc Caball

Vice-Principal for Teaching and Learning: Feargal Murphy
Vice-Principal for Research and Innovation: Professor Gerardine Meaney

**UCD School of Archaeology** *Head of School*Professor Gabriel Cooney

UCD School of Art History and Cultural Policy Head of School Professor Kathleen James-Chakraborty **UCD School of Classics** *Head of School*Dr Philip de Souza

UCD School of English, Drama and Film Head of School Professor Nicholas Daly UCD School of History and Archives Head of School

Head of School
Professor Edward James

UCD School of Irish, Celtic Studies, Irish Folklore and Linguistics Head of School Professor Liam Mac Mathúna UCD School of Languages and Literatures Head of School Professor Jean-Michel Picard

**UCD School of Music** *Head of School*Professor Thérèse Smith







- 1. Shown at the discussion Rebuilding Haiti: What Role for the US, the EU and Ireland?, were (I-r): Professor Liam Kennedy, Director of the UCD Clinton Institute for American Studies; Amitabh Desai, foreign policy advisor to President Clinton; Denis O'Brien, Chairman of Digicel Group; and Ken Gibson, Chief Executive, Leprosy Mission of Ireland
- 2. President of Ireland Mary McAleese with Fr Caoimhín O'Laoide, Minister Provincial of the Irish Franciscans, viewing some of the treasures of the UCD Mícheál Ó Cléirigh collection
- 3. Pictured at the launch of six books from the UCD School of English, Drama and Film, were (I-r): Dr Maria Stuart, Dr Porscha Fermains, Dr John Brannigan, Professor Nicholas Daly, Dr Shara Deckard and Dr Jane Grogan
- 4. Pictured at the launch of the *Dictionary of Irish Biography* in November 2009, were (I-r): Dr James Quinn, Executive Editor; An Taoiseach, Mr Brian Cowen TD; and James McGuire, UCD School of History and Archives, and Managing Editor of the Dictionary
- 5. Professor Mary Daly (left), Principal of UCD College of Arts and Celtic Studies, at the launch of her new publication, *The Irish State and the Diaspora*, with Dr Maurice Manning; Dr Attracta Halpin, Registrar of the NUI; and Fergal Quinn, Senator of NUI. The publication examines how successive Dublin governments have interacted with the Irish overseas
- 6. Students and tutors using the new digital multimedia language learning facilities for Modern Irish in the newly refurbished An Teanglann, in the Newman building



### Strategic plan

The College's two Schools operate on a decentralised basis. The key goals are to sustain undergraduate student quality, increase numbers at graduate study levels and recruit more international students and faculty as drivers of diversity.

Innovation will be driven by growth in the volume and quality of research, which will also underpin continuous improvement in the quality of the courses on offer. Finance, Innovation and Globalisation at the UCD School of Business, and Criminology and Human Rights at the UCD School of Law, are among the key research themes identified. The UCD School of Business is also planning a major role in the TCD/UCD Innovation Alliance.

Capabilities will be enhanced by hiring the best faculty worldwide. Increased student numbers will be catered for through improved facilities, which, at the Law School in particular, will lead to new and innovative teaching methods.

The UCD School of Business remains committed to maintaining its international accreditations, which are the recognised measures of quality for a truly global business school.

#### **Developments to date**

Driven by buoyant demand in a weak economy, student numbers continued to grow. However, competition for the best students remains intense, with the global nature of graduate student recruitment increasing competitive pressures.

Increasing numbers of international students are coming to both Schools, particularly at Graduate Study levels where nearly 30% of the students are international. China is a region of key focus where the relationship building over the last several years is beginning to reap rewards. This includes a new 2+2 programme based in Wuhan, which will give entry to the BComm after two years' study in China. Vietnam is also a developing market for the Business School, in partnership with Ireland Aid.

A detailed review has led to the development of new vision and values statements for the UCD School of

Business. These have been endorsed by the School's advisory boards and are now in an implementation phase. Similar work has commenced for the new UCD Sutherland School of Law and will be completed in the coming year.

A major gift from an anonymous donor was received by the UCD School of Business to provide scholarships for students who could not otherwise afford to attend the UCD Michael Smurfit Graduate Business School. These 'Aspire' scholarships involve a five year commitment by the donor as a contribution to economic recovery. The first students under the programme will commence their studies in September 2010.

Planning permission for the new UCD Sutherland School of Law has been received and site works have commenced. The new School is based on a major gift by Dr Peter Sutherland SC and will provide not just improved student facilities but will also lead to new and improved teaching methods.

A new Human Rights network has been established as well as a new UCD Centre for Regulation and Governance. Both are interdisciplinary and based at the School, and this year the School hosted a major European conference on regulation in an age of crisis.

Research output continues to grow, both in volume and quality of journal publications, with the percentage of research-active faculty increasing. A Forfás and Higher Education Authority (HEA) commissioned review has identified the UCD School of Business as the leading centre for business research in Ireland. Faculty continue to be in demand as expert commentators in the media on a wide range of topics.

New graduate programmes have been introduced at both Schools, including an innovative master's offered in conjunction with the Chartered Institute of Management Accountants. Elsewhere, a major review of the BComm led to a completely new curriculum being agreed for introduction next year. Executive Education secured major new contracts with Bord Bia and Enterprise Ireland aimed at the regeneration of the Irish economy.

### The UCD College of Business and Law consists of two Schools:

College Principal: Mr Paul Haran

Vice-Principal for Teaching and Learning: Dr Ann Bourke
Vice-Principal for Research and Innovation: Professor Anthony Brabazon

**UCD School of Business** *Head of School*Professor Thomas Begley

UCD School of Law Head of School Professor John Jackson





- 1. Minister for Agriculture, Fisheries and Food, Brendan Smith TD (centre) with Aidan Cotter, CEO, Bord Bia, and Professor Tom Begley, Dean, UCD School of Business, and Fellows of the Bord Bia Marketing Fellowship programme
- 2. Two UCD Law students won the inaugural National Advocacy Challenge organised and sponsored by McCann Fitzgerald. The winning team, Andrew McElwee (second right), and Ian Boyle Harper (centre), are pictured with the judging panel, Mr Justice Peter Kelly (left), John Cronin, Chairman McCann Fitzgerald (right) and Rose Hynes, Chairman, Bord Gáis
- 3. A computer generated image of the new UCD Sutherland School of Law building
- 4 Dr Eoin Carolan (left), lecturer in law, with Professor John Jackson, Dean, UCD School of Law, and the Hon Mrs Justice Susan Denham of the Supreme Court, who launched Eoin's new book *The New Separation of Powers*
- 5. At the launch of the new Graduates 4 International Growth programme being run in conjunction with Enterprise Ireland, were (I-r): Professor Frank Roche, Director, UCD Michael Smurfit Graduate Business School; Batt O'Keefe TD, Minister for Enterprise, Trade and Innovation; Frank Ryan, CEO Enterprise Ireland and Niamh Reddy
- 6. Professor Tom Begley, Dean, UCD School of Business with students from the UCD Michael Smurfit Graduate Business School at the launch of the Aspire scholarship programme
- 7. Mr Hoang Tring Hai (centre), Deputy Prime Minister of Vietnam, on a visit to the UCD Michael Smurfit Graduate Business School to meet Vietnamese students studying on the Ireland Aid Scholarship programme

### **UCD College of Engineering, Mathematical and Physical Sciences**

www.ucd.ie/engscience

#### Strategic plan

The mission of the UCD College of Engineering, Mathematical and Physical Sciences is to be a leading European engineering and science College, advancing knowledge and fostering innovation in the engineering, mathematical and physical sciences. The College has a major role to play in meeting national and global engineering and science challenges, and in realising the 'smart economy' in Ireland through its graduates, intellectual property, innovations and industrial collaborations. It has strong collaborative partnerships with industry and other Irish and international academic institutions, as well as multidisciplinary collaborations with life sciences, medicine and business.

#### **Developments to date**

The consolidation of the engineering programmes into a single CAO entry point (DN150) proved successful. Points have settled at 425 allowing UCD to retain its position as the highest points course for a level 8 general engineering degree in the country.

Responding to increased demand, Engineering is offering two new undergraduate programmes for entry 2011: Energy Systems Engineering; and Biomedical Engineering. The graduate programme in Energy Systems has already proved popular with demand outstripping places available.

UCD Science continued its strong growth trajectory in CAO points with the Science omnibus programme rising to 435 points up from 385 the previous year.

Multidisciplinary and industrial collaborations were strengthened by a number of key initiatives. The Nanovation Laboratories were launched by Noble Laureate, Professor Walter Kohn. These scientific laboratories support the research and development of new energy technologies in UCD. Here, scientists and industry will work together to develop nanotechnologies and products targeted at the global renewable energy market, estimated to be worth €113 billion by 2015. Successes include industry collaborations

such as with SolarPrint, which is actively engaged with both Professor Ravindranathan Thampi, UCD School of Chemical and Bioprocess Engineering, and the Solar Energy Conversion Cluster.

A *TCD/UCD Innovation Alliance* Engineering day saw the presentation of 60 current postgraduate and postdoctoral research projects from across TCD and UCD. The research covered engineering design areas in four thematic areas: future energy solutions; sustainable infrastructure and environment; information, communication and media technologies; and bioengineering for health.

An undergraduate Innovation Workshop: The Importance of Being Innovative, was held in June 2010 to highlight the importance of innovation education and the concepts behind the *TCD/UCD Innovation Academy*. The workshop was organised by Dr Amanda Gibney, and supported by Professor Julie Berndsen and Dr Emer Cunningham.

Collaboration with industry deepened this year. The Geophysics Group of the UCD School of Geological Sciences signed an agreement with Tullow Oil plc to establish a dedicated Tullow Research Cluster. Tullow has agreed to provide substantial baseline funding to the group on a rolling three year basis. The UCD School of Computer Science and Informatics' Introduction to Computer Science and Programming (ICSP) module, celebrated its second anniversary with an event in Google HQ, Barrow Street, facilitated by Mr Eoghan Nolan from Google.

The academic standing of our staff was once again recognised when Dr Amanda Gibney was honoured with a National Award for Excellence in Teaching. President Mary McAleese presented the award in Dublin Castle in November 2009

Charles Nwankire, a PhD student of Dr Denis Dowling of the Surface Engineering Group, UCD School of Electrical, Electronic and Mechanical Engineering, took the first prize in the national Science Speak competition.

### The UCD College of Engineering, Mathematical and Physical Sciences consists of seven Schools:

College Principal: Professor Nick Quirke
Deputy Principal: Professor Chen-Ching Liu
Director of Graduate School: Professor Padraig Dunne

Vice-Principal for Teaching and Learning: Dr Amanda Gibney
Vice-Principal for Research and Innovation: Professor Michael Gilchrist

UCD School of Architecture, Landscape and Civil Engineering Head of School Dr Mark Richardson

UCD School of Chemical and Bioprocess Engineering Head of School Professor Don MacElroy UCD School of Computer Science and Informatics Head of School Professor Joe Carthy

UCD School of Electrical, Electronic and Mechanical Engineering Head of School Professor David FitzPatrick UCD School of Geological Sciences Head of School Professor Frank McDermott

UCD School of Mathematical Sciences Head of School Professor Micheál Ó Searcóid **UCD School of Physics** *Head of School*Professor Lorraine Hanlon



### **UCD College of Human Sciences**

### Strategic plan

The UCD College of Human Sciences is committed to achieving the ambitious goals and objectives of UCD's Strategic Plan. The strategy provides the framework for the College in the areas of teaching and learning, research, innovation and partnership. The College reviewed its two flagship undergraduate programmes, the BA and the BSocSc, in order to enhance student engagement and performance through high quality research undertaken by dedicated Teaching and Learning Fellows.

The College is a leader in graduate education in the human and social sciences and is committed to internationalising the student body on its graduate and undergraduate programmes.

The College will further enhance the volume and quality of research output in the social and human sciences over the life of the plan. At a time of considerable national challenge, the College will play its full role in Ireland's renewal and recovery.

#### **Developments to date**

The academic year 2009/10 was a year of significant achievement for the UCD College of Human Sciences. Its commitment to internationalisation and to enhancing UCD's reputation was underlined by the number of high quality international conferences and speakers who were attracted to UCD during this period. The visit of one of the world's leading philosophers, Jürgen Habermas, to UCD in June 2010 was a highlight. Professor Habermas was awarded UCD's highest academic distinction, the Ulysses Medal, and delivered a public lecture entitled *The Political: The Rational Meaning of a Questionable Inheritance of Political Theology* to a packed audience.

As part of its contribution to social innovation, the College held a half-day symposium on 30 March in Newman House for senior civil servants, state agencies and NGOs on *The Crisis*,

Welfare State Retrenchment and Social Cohesion; Lessons from Social Research. Senior academics from the College addressed issues of poverty, vulnerability, unemployment, housing failure and institutional challenges facing the Irish state. All of the papers were the result of original high quality social science research funded by a variety of agencies including the European Commission, Irish Research Council for the Humanities and Social Sciences (IRCHSS) and government departments.

The quality of the College's graduate students was on display at the annual Graduate Research Symposium held in January. The keynote speaker was Dr Rory O'Donnell of the National Economic and Social Council. The College's success in securing funding from IRCHSS continued this year with the award of one post-doctoral fellowship and eight doctoral fellowships. The award of €3 million under PRTLI 5 for graduate programmes in economics and political science will further enhance the reputation of the College's Graduate School. Dr Paul Gill, who graduated with a doctorate in political science in 2010, was awarded the prestigious Jean Blondel award for the best thesis in Europe in 2009/10.

The College's commitment to opening up the university to non-traditional students was underlined by a special two year route to the Bachelor of Social Science degree. This was offered to students who had completed a Diploma in Community Drugs Work provided by a partnership between the UCD School of Applied Social Science and a number of community groups. The quality of the College's undergraduates was underlined by the award of Gold Medals to two UCD students in political science and sociology at the inaugural Undergraduate Awards of Ireland, presented by the President of Ireland, Mary McAleese on 20 October.

#### The UCD College of Human Sciences consists of ten Schools:

Principal: Professor Brigid Laffan

Deputy Principal: Professor Bairbre Redmond

Director of Graduate School: Professor Ben Tonra

**Vice-Principal for Teaching and Learning:** Professor Bairbre Redmond **Vice-Principal for Research and Innovation:** Professor Richard Sinnott

**UCD School of Applied Social Science** 

Head of School
Professor Tony Fahey

**UCD School of Economics** *Head of School*Professor David Madden

**UCD School of Education** *Head of School*Dr Marie Clarke

UCD School of Geography, Planning and Environmental Policy Head of School Professor Alun Jones

UCD School of Information and Library Studies Head of School

**UCD School of Philosophy** *Head of School* Professor Maeve Cooke UCD School of Politics and International Relations Head of School Professor Paul Walsh

**UCD School of Psychology** *Head of School*Dr Eilis Hennessy

UCD School of Social Justice Head of School Professor John Baker **UCD School of Sociology** *Head of School* Professor Chris Whelan



### Strategic plan

The College of Life Sciences is a key contributor to two of UCD's four major research themes: Earth Sciences, Energy and the Environment; and Health and Health Care Delivery. It is committed to delivering excellence in teaching, research and innovation.

A climate of applied interdisciplinarity allows research and education to maximise students' potential. The College plays an important role in advancing scientific discovery. To that end it invests substantial effort in providing its researchers and academics with an enabling environment. Education in the College also benefits from a vibrant research setting of international calibre.

The impact of focusing not only on education and research, but additionally on innovation, UCD's third pillar, will prove more influential in years to come. The College will pay particular attention to identifying and creating inter- and intra-institutional networks to ensure critical mass in specific disciplines.

#### **Developments to date**

Over the past academic year the College continued to increase the choice of taught master's courses offered to students by developing 10 new programmes. Most Schools will offer both research and taught graduate programmes in 2010/11.

The College is building successful partnerships with high calibre universities worldwide. The introduction of a premaster's portfolio of courses will attract excellent students, initially from China, by pairing academically focused English language training with a taught tasters course during the following academic year. Staff undertook trips to China in 2009/10 to visit selected universities and to progress the development of Memoranda of Understanding, which are prerequisites to joint programming. These efforts have

resulted in closer relationships being established with several Chinese universities, which sent delegations to UCD. These delegates experienced at first-hand what the College of Life Science has to offer. A new student contingent from China will arrive at UCD in September 2010.

The College's expertise led to the award of numerous large European FP7 research grants by established investigators, including Professor Mike Gibney (€9 million), Professor Walter Kolch (€12 million) and Professor William Gallagher (€6 million). Researchers were also highly successful in attracting substantial funding from Science Foundation Ireland (SFI) including Professors Jeremy Simpson, Grace Mulcahy, Declan Gilheany and Dr Evelyn Murphy. Also younger researchers and students received recognition for their work: two graduates in the UCD School of Biomolecular and Biomedical Sciences were awarded an Undergraduate Award of Ireland. Several academics in the College received awards for their outstanding teaching including Drs Anne Drummond and Tara Magdalinski (College Teaching Award awarded by UCD's President).

Further important developments during 2009/10 included accreditation for the UCD Centre for Food Safety from the World Health Organisation (WHO); the launch of the National Centre for the Protection of Older People and the Irish Centre for the History of Nursing and Midwifery History; Environmental Science moved the Programme for Experimental Atmospheres and Climate (PEAC) facility to a new state-of-the-art resource at UCD's Rosemount site; and the amalgamation of the School of Physiotherapy and Performance Science with the School of Public Health and Population Science, to form the UCD School of Public Health, Physiotherapy and Population Science. This will benefit from existing synergies, freeing up time for Dr Brian Caulfield to take on the role as director of the Technology Research for Independent Living (TRIL) Centre.

#### The UCD College of Life Sciences consists of seven Schools:

**Principal:** Professor Maurice Boland **Director of Graduate School:** Dr Clare O'Connor

Vice-Principal for Teaching and Learning: Dr Declan Patton
Vice-Principal for Research and Innovation: Professor William Gallagher

UCD School of Agriculture, Food Science and Veterinary Medicine Head of School Professor Shane Ward

UCD School of Biology and Environmental Science Head of School Professor Tom Bolger UCD School of Biomolecular and Biomedical Science
Head of School

UCD School of Chemistry and Chemical Biology Head of School Professor Earle Waghorne

Dr Gethin McBean

UCD School of Medicine and Medical Science Head of School Professor William Powderly

UCD School of Nursing, Midwifery and Health Systems Head of School Dr Michelle Butler UCD School of Public Health, Physiotherapy and Population Science

Head of School Professor Cecily Kelleher



1. The UCD School of Nursing, Midwifery and Health Systems hosted a seminar to mark 21 years of cancer nursing education at UCD. Entitled Celebrating the Past, Shaping the Future, the event was addressed by Mary Harney TD, Minister for Health and Children

2. UCD researchers Dr Gethin McBean, Dr Alice Vines and Dr Alfonso Blanco Fernández pictured on an advertising screen in New York's Times Square. The team from the UCD School of Biomolecular and Biomedical Sciences, and UCD Conway Institute, won the 2009 Accuri Flow Cytometer Creativity Award Programme for their research outlining the use of a flow-cytometric method for continuous measurement of intracellular calcium

3. Students and staff of the UCD School of Medicine and Medical Science, celebrated the progression of Stage 4 medical students into their formal clinical training programme with a 'White Coat Ceremony' in O'Reilly

4. The Centre for Support and Training in Analysis and Research (CSTAR) commenced in September 2009. **UCD School of Public Health and Population Science** set up this HRB-funded methodology support centre as a collaboration between UCD, UL, NUIG, TCD, DCU and QUB, covering all areas of health research. Pictured at the seminar Enhancing the Quality of Health Research: How To Do It and How Not To Do It, held in Newman House, were (I-r): Professor Giuseppe Devito, UCD; Professor Cecily Kelleher, UCD; Professor Hanno Ulmer, Innsbruck Medical University; and Dr Gloria Crispino-O'Connell, UCD School of Public Health, Physiotherapy

Pictured at UCD Institute for Sport and Health, at the launch of the UCD Elite Athlete Academy, were (I-r): three-in-a-row, TG4 Ladies' Senior Football Championship winner with the Cork team, Rena Buckley, who recently qualified as a physiotherapist; graduate of the diploma in sports management, and captain of the Irish rugby team, Brian O'Driscoll, who is also a former sports scholar; and qualified doctor, Stephen Lucey, full back for Limerick

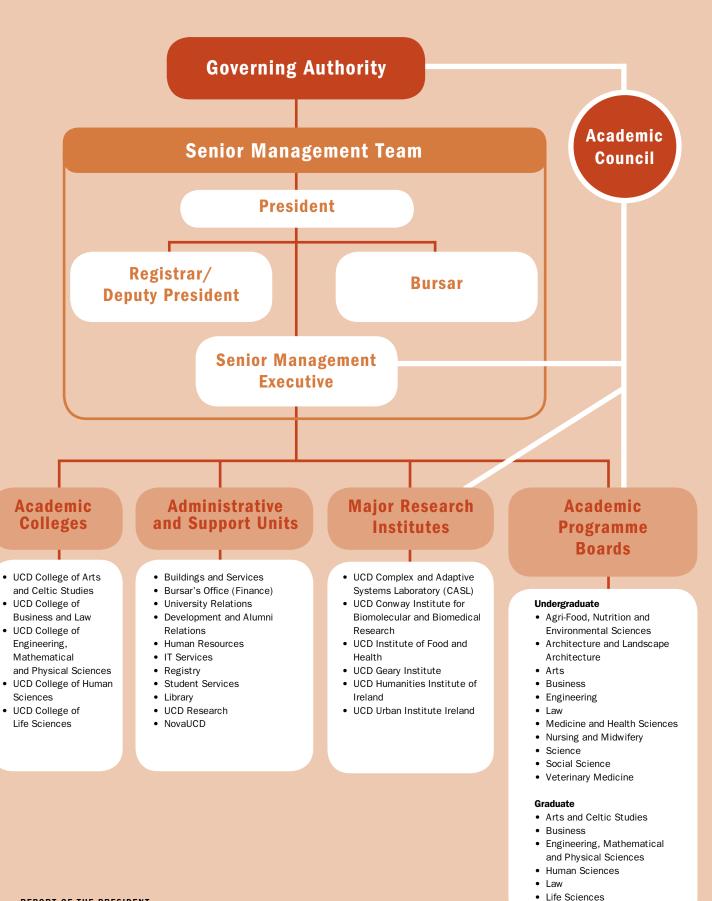
6. Staff and students from the UCD School of Biology and Environmental Science have been leading a major research project, *The Behavioural Ecology of Fallow Deer of the Phoenix Park*, since 1988. Ten PhD projects have been completed and over 30 scientific papers published. The research has been funded by The Office of Public

7. The horse industry and media responded well to welfare issues raised by the UCD report: Challenges and Solutions to Support Good Equine Welfare Practice in Ireland. This presented key findings by a multidisciplinary research team from the UCD School of Agriculture, Food Science and Veterinary Medicine, and the UCD Geary

> CHALLENGES AND SOLUTIONS TO SUPPORT GOOD EQUINE WELFARE PRACTICE IN IRELAND



## **University Structure**





## **Profile of Student Body**

UCD's student population grew by 5% between 2008/09 and 2009/10. Strong growth was recorded in international and graduate student numbers, with these groups now representing 19% and 28% respectively of the total student population. Another key target group, access students, also increased to 12.5% of the total undergraduate population (see Table 1.).

Over the lifetime of UCD's Strategic Plan, UCD will endeavour to fulfil the following ambitious targets for international, graduate and non-traditional students:

- increase the percentage of international students from 17% to 25%;
- increase the percentage of graduate students from 26% to 33%;
- increase the percentage of non-traditional students on undergraduate programmes from 17% to 25%.

It is evident from the current student population figures that progress has already been made towards achieving these targets.

		2009/10	2009/10 2009	2009/10	) % Intern-	Total Access (only at UG Degree Level)	% Access (only at UG Degree Level)	Total Conferred 2008/09		
Full-time Part		Part-time	Part-time TOTAL		Non-Irish				TOTAL	national
Degree Certificate/Diploma Occasional	14,163 161 621	458 1,143 190	14,621 1,304 811	13,044 1,157 225	1,577 147 586	14,621 1,304 811	10.8% 11.3% 72.3%	1,831	12.5%	3,155 685
Exchange	593	1	594	-	594	594	100.0%			-
Total Undergraduate	15,538	1,792	17,330	14,426	2,904	17,330	16.8%			3,840
Doctorate Master's Research Master's Taught Certificate/Diploma	1,608 210 1,987 583	220 65 1,089 1,133	1,828 275 3,076 1,716	1,123 198 2,339 1,494	705 77 737 222	1,828 275 3,076 1,716	38.6% 28.0% 24.0% 12.9%			290 58 1,896 1,150
Total Graduate	4,388	2,507	6,895	5,154	1,741	6,895	25.3%			3,394
Total Graduate  UCD Total	4,388 19,926	2,507 4,299	6,895 24,225	5,154 19,580	1,741 4,645	6,895 <b>24,225</b>	25.3% 19.2%			

## Foster Early and Lasting Student Engagement

In 2009/10 significant work was undertaken to revise the first year curriculum, with the aim of supporting the most appropriate teaching approaches, module content, subject choices and assessment strategies. This was to ensure a successful student transition into university.

Work on the curricular changes was accompanied by an increase in broad supports for students. Most programmes now have supervised peer-mentoring programmes, allowing students to be supported by fellow students from more advanced stages of their programme. These schemes are designed to complement existing academic and administrative supports. A new Arts Guides project has been planned which will extend orientation support to Arts students over their first semester. In the Science programme, a new Science module, Principles

of Scientific Enquiry, will be introduced in 2010/11 to help new students focus on the basic skills required in third level Science education.

A major review of academic student supports was established in 2010 and will report in early 2011. The views and suggestions of over 2,000 students have already been analysed.

Over the lifetime of this Strategic Plan, UCD will concentrate on early intervention to ensure student engagement in their first year. A number of related measures, such as progression from first year to second year and students' completion/graduation rates will be measures of success.



- 1. College Teaching Award recipients for 2009/2010, were (I-r): Dr Mike Casey, UCD School of Chemistry and Chemical Biology (recipient); Dr Michael Staunton, UCD School of History and Archives (recipient); Dr Kenneth Gavin, UCD School Architecture, Landscape and Civil Engineering (recipient); Professor Bairbre Redmond, Deputy Registrar for Teaching and Learning; Dr David Kerr, UCD School of History and Archives (recipient); Dr Hugh Brady, President; Mr Jonathan McNulty, UCD School of Medicine and Medical Science (recipient); Dr Philip Nolan, Registrar; Dr Paul McGrath, UCD School of Business (recipient); Dr Lorraine McGinty, UCD School of Computer Science and Informatics (recipient); and Dr Tara Cusack, UCD School of Public Health, Physiotherapy and Population Science (recipient)
- 2. Some of UCD's international students who now make up 19% of the total student body
- 3. Pictured at the UCD Open Days in December 2009, were UCD Agricultural Science graduate, Mairead McGuinness MEP, and student Padraig Kelly. Ms McGuinness spoke as part of the UCD Open Days, which gives prospective students a first-hand taste of life at UCD
- 4. Pictured at the UCD Agricultural Science
  Conferring Ceremony in July 2010, were (I-r):
  Ms Lorraine Davis, Co. Tipperary; Barry Cahalan,
  Co. Tipperary; and Kate Cahier, Co. Wicklow.
  Lorraine, David and Kate were three of eight UCD
  Agricultural Science graduates who each received
  a €20,000 euro scholarship generously sponsored
  by leading Agribusiness organisations: Lorraine
  graduated with a specialism in Animal and Crop
  Production, and her scholarship was supported by
  Richard Keenan and Co; Barry's specialism was in
  Agri-Environmental Sciences, supported by Bord Na
  Mona; and Kate's specialism was in Food Science,
  supported by Kerry Group
- 5. The UCD Fellows in Teaching and Academic Development presented their strategic projects on Critical Thinking and the Development of General Electives at a Teaching and Learning event on 14 May 2010. The Fellows are pictured with Professor Alan Davidson (left), Dean for the Enhancement of Learning, Teaching and Assessment, Robert Gordon University, Aberdeen, who facilitated feedback from the discussion on Developing the UCD Graduate of 2015; and Professor Bairbre Redmond (3rd from left), Deputy Registrar, Teaching and Learning
- 6. Summer 2010 Internship Students. Internship students experience Irish society and culture through an extensive series of excursions and field trips in Dublin and across the island of Ireland, including this trip to Connemara, West of Ireland

## Strengthening and Enhancing Academic Disciplines and Programmes

A major review of the structure and outcomes of undergraduate degree programmes was undertaken in 2009/10. Undergraduate Programme Deans, leading their Programme Boards and with the support of Graduate School Directors and College Principals, put forward ambitious plans to strengthen academic disciplines and better support the student within the modular, flexible, undergraduate curriculum. Through the focus on the distinctiveness of UCD students, all programmes have identified their specific and distinctive graduate attributes, and will support students to develop these attributes. Other key elements include restructuring the first year curriculum, identifying opportunities for innovative, inter-disciplinary study, as well as clarifying progression routes to graduate-level study or employment. The

university's development of the *Ad Astra Academy*, and linked programme-based schemes, will provide incentives for students to develop their full academic potential and progress to graduate study at an accelerated pace.

UCD will monitor students' feedback on academic experience and the views of external stakeholders on UCD graduate quality. The university will also monitor various indicators, including UCD's national position in attracting the first preferences of second-level and mature students, and the proportion of new undergraduate entrants with high entry scores.

Overall sector 1st Preference applications 2009/10		UCD Entrants by Preferences 2009/10			
Total Level 8	65,085	1st Preference	2,242		
UCD 1st Preferences	7,975	All Preferences	4,389		
% of sector	12.3	1st Pref as % of Total	51.1		
		% of Sector	12.3		
New UCD entrants by Points	2009/10*	Staff FTE to student FTE ratio			
Total Entrants with Points	3,715	Colleges	2008	2009	2010*
Entrants 500-600 points	966	Business & Law	23.4	27.0	29.2
% Entrants 500-600 points	26.0	Eng., Maths & Physical Sciences	15.7	17.2	19.6
Entrants 550-600 points	343	Human Sciences	22.1	24.8	28.5
% Entrants 550-600 points	9.2	Life Sciences	15.0	16.3	17.4
Mean CAO Points	453	Arts & Celtic Studies	17.5	20.6	23.1
Median CAO Points	445	UCD Total	17.2	19.4	21.2
* For 2009 entrants UCD conver	ted A-Level results to CAO point	Notes:			
equivalents and these are include	ed here.	1. 2008 and 2009 data are from Qua	arter 4 (De	cember pa	ayroll)
		*2010 data are taken from Quarter 1 (March payroll)			

## Stimulating Creativity, Innovation, Entrepreneurship and Active Citizenship

Building the capacity for student-led creativity and innovation in the curriculum is central to the achievement of the university's goals. The UCD Fellows in Teaching and Academic Development (2009-2011), funded by the HEA's Strategic Innovation Fund (SIF), are focusing on the most effective ways to encourage the development of students' key critical thinking patterns and on new ways to use elective modules to enhance creativity within the student learning experience.

In 2009/10, the university created ever more opportunities for student development, both within and outside the formal curriculum; a new strategy for co-curricular learning is under development for implementation during the period of the

Strategic Plan. Already underway, however, is a range of activity led by UCD's Career Development Centre under the new Directorship of Dr David Foster. The Centre is supporting the introduction of Personal Development Profiles into the curriculum of a number of programmes. This encourages students to participate in key co-curricular activities such as volunteering and active citizenship, as well as reflecting on how these skills, combined with their academic study, help to build a sound and sought-after suite of graduate attributes.

## **Growing and Developing Graduate Education**

In line with the goals of the UCD Education Strategy, 2009/10 saw a further growth in graduate student numbers in both the taught and research domains. The graduate enrolment planning exercise resulted in a 20% annual increase in graduate students on 2008/09. The number of master's and PhD research students increased by 4.5% to over 2,100. The total graduate population stands at over 6,895 (28% of the UCD student population). In early 2010, new admissions procedures were rolled out for all graduate taught programmes whereby Admissions Tutors now process applications on a rolling basis, with four specific round closures. This ensures speed and efficiency, resulting in the growth and development of graduate taught programmes.

Following the establishment of Graduate Education Networks, under the auspices of the SIF funded Dublin Region Higher Education Alliance (DRHEA), discipline-specific modules and master classes were provided to doctoral students with mobility across the participating institutions. The DRHEA disciplinary groups (Biomedical Sciences, Chemistry, Economics, Engineering, Physics, Politics/Sociology/Public Policy) have been working towards the delivery and organisation of inter-institutional

structured PhD programmes through joint strategic planning. In addition, 10 new collaborative, structured and thematic PhD programmes secured funding under PRTLI 5. These will commence in 2011. The *TCD/UCD Innovation Academy* will provide innovation and entrepreneurship training to PhD students.

2010/11 will see an even greater focus on advancing strategic development of the graduate taught portfolio. This will facilitate the development of programmes which can be individually tailored and which align with research strengths. 30 new graduate taught programmes, approved during 2009/10, are to commence in the 2010/11 session.

During the period of this Strategic Plan, the university will regularly monitor progress in achieving its graduate population target of 33%. In addition, the PhD completion rate for full-time students will be monitored.

Graduate Student Population	2009/10
Graduate Taught	4,792
Graduate Research	2,103
UCD Total	24,225
% Graduate	28.5%

## Internationalising the Student Experience

Internationalisation is a priority for UCD and there were significant developments in this area in 2009/10. The international student population on campus grew by a further 6.5% with the largest increase at taught graduate level (25%). The Centre for Study Abroad introduced a number of Junior Year Abroad programmes, including Nursing and Midwifery, Law, Architecture, and American Studies. The Summer Internship programme was rolled out university-wide.

UCD students are increasingly mobile: 150 participated in an exchange outside the EU (up 22% on 2008/09), with a similar increase of incoming non-EU exchange students. UCD sends the most students on Erasmus exchanges of any European English-speaking university, with over 300 students benefiting from the programme. 2009/10 also saw the introduction of pre-master's programmes, which provide English language and Study Skills preparation for non-EU students aiming to undertake one-year master's programmes.

UCD is co-chairing the *Universitas 21* Internationalisation Group and is chair of the *Universitas 21* Teaching and Learning Group. UCD continues to be centrally and prominently involved in the activities of this important network.

The UCD Confucius Institute remained highly active in the

promotion of Chinese culture and language. The Institute not only offers 18 modules for the university's popular BComm with Chinese Studies, but also offers Chinese language and culture-related courses for the public, Mandarin courses in local secondary schools, and specialised business practice training courses for Irish companies.

A major Institute research report entitled *Irish Business in China – Meeting the Inter-Cultural Challenges* was published by Blackhall Publishing.

The Institute has also been working with the National Council for Curriculum and Assessment (NCCA) in developing Chinese language and culture as a fully recognised Transition Year curriculum unit for secondary schools.

Under the auspices of the Strategic Plan, UCD intends to achieve an international student population of 25% of the student body, including a non-EU student population of 15%.

International Student Population	2009/10
International Students	4,645
UCD Total	24,225
% International	19.2%
% International	19.2%

## Widening Participation and Supporting Lifelong Learning

2009/10 saw the development of the UCD Access and Lifelong Learning Strategy with agreed targets for the intake of non-traditional students (including part-time undergraduate degree students). By 2014, at the end of the current Strategic Plan, such students will comprise 25% of the student body.

2009/10 saw the launch of the first quantitative evaluation of an Irish access programme. UCD's report *Evaluating the Impact of the UCD New ERA Widening Participation Initiative* was funded by SIF.

The national roll-out of the Higher Education Access Routes (HEAR) and Disability Access Route to Education (DARE) schemes led to a growth in applications at UCD, with HEAR doubling the number of applicants. During 2009/10, UCD attracted and supported 108 New ERA, 53 DARE and 425 new mature student entrants (a record achievement). The

UCD Adult Education Centre continued to attract students on to dedicated Access programmes for major undergraduate degree programmes. 2,301 adults participated in various adult education part-time courses in 2009/10.

UCD is a lead partner in the Higher Learning Network – an initiative of the SIF-funded DRHEA. UCD leads the network's Progression Pathways project which aims to clarify and publish the access, transfer and progression opportunities within the DRHEA region for all adult learners.

#### Non-traditional Undergraduate degree students 2009/10

Non-traditional UG students 2,284
Total Undergraduate Degree 14,621
% Non-traditional 15.7%

## Teaching, Learning Innovation and Academic Development

2009/10 saw a continuation of development and innovation within Teaching and Learning. A new online system was piloted across 18 Schools. This supports the 2009/10 Module Enhancement Project which provides online data to all academics on students' feedback, grade distribution and module registration, and completion figures. Obtaining additional feedback on the student experience at institutional level is now a priority.

The Graduate Diploma in University Teaching and Learning was re-designed and re-launched. It offers academics the opportunity to review and improve their teaching skills and their understanding of approaches and theories in effective higher education.

The launch of the new website www.ucd.ie/teaching significantly strengthened the university's Teaching and Learning identity. It showcases innovative teaching and provides resources for staff using a regularly updated selection of podcasts.

2009/10 saw continued recognition of outstanding teaching in UCD. Dr Amanda Gibney, UCD School of Architecture, Landscape and Civil Engineering, was honoured with a National Award for Excellence in Teaching. There were eight recipients of UCD's annual funded College Teaching Awards. Two President's Teaching Awards, funded by the HEA, were awarded to Dr Fionnuala Dillane from the UCD School of English, Drama and Film and Dr Crystal Fulton from the UCD School of Information and Library Studies.

## Quality

The Strategic Plan highlights the required provision of highquality, reliable and user-friendly academic, administrative and student support services and systems. Quality is central to everything at UCD. A newly constituted Academic Council Committee on Quality was established in 2009/10.

In addition to regular quality reviews, a number of key initiatives were launched in 2009/10, including a pilot academic programme-reporting project. This is a retrospective evaluation of the academic programme under review, with a view to introducing improvements, where required. To reinforce the role of the student in contributing to university policies and practices, the UCD Quality Office organised three UCD student focus days to cover a wide spectrum of student activity – from learning and teaching to the social environment. A final report will be

produced in 2010/11. Preparations are well underway for the UCD Institutional Review in February/March 2011. A Steering Group has been established to oversee the preparation of the Institutional Self Assessment Report.

During 2009/10 the following underwent a quality review:

- UCD School of Art History and Cultural Policy
- UCD School of Biomolecular and Biomedical Sciences
- UCD School of Economics
- UCD School of Physics
- UCD Commercial Office



## **RESEARCH**

A core focus of UCD's research strategy is the ambition to address the challenges that will shape Ireland's future and the university's role in the wider world. As such, UCD has established four major interdisciplinary research themes that match Ireland's needs and current global challenges.

UCD is a national leader in research funding, attracting quality investment that has helped the university to establish a reputation as a destination of choice for leading researchers. UCD continues to forge exciting educational, research and commercial partnerships and collaborations with academic, community, business and professional organisations.

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### Research Publications:

Details of all research publications for the period of the Report are available online at: www.ucd.ie/research/publications

## **Research Funding, Metrics and Performance Indicators**

#### **Funding Overview**

Externally funded research contracts registered during the year amounted to €49.6 million (see table 1), representing a drop of 57% when compared with the previous financial year. This drop in UCD's funding is reflective of the national funding environment, in which Irish state funding for

research decreased by 76% on last year. During the period, UCD's share of EU funding rose to  $\leqslant$ 9.8 million, an increase of 75% on the previous year. The value of the contribution to overheads amounted to  $\leqslant$ 6.7 million. Included in the  $\leqslant$ 49.6 million funding is  $\leqslant$ 0.7 million in respect of PRTLI Cycle 4 projects.

**Table 1: Research Awards and Funding Sources** 

#### **Research Awards**

Year	Total value contracts signed incl. contributions to overheads (€ million)	Total contributions to overheads (€ million)	Total number of contracts awarded	Number of proposals submitted
2005/2006	82.9	11.80	664	1,245
2006/2007	7 96.3	14.80	556	1,234
2007/2008	3 114.7	17.30	484	1,090
2008/2009	9 116.7	21.03	555	1,150
2009/2010	9.6	6.7	459	970

#### **Funding Sources**

Funding source	Number of contracts	Value (€ million)
Science Foundation Ireland (SFI)	52	13.3
European Commission (EC)	31	9.8
Irish Research Council for Science Engineering and Technology (IRCSET)	57	6.2
Enterprise Ireland (EI)	79	3.1
Others	240	17.2
Total	459	49.6

# Internal Schemes in Support of Research Seed Funding Scheme

The 2010 Seed Funding Scheme closed at the end of March, with 550 applications received. This is the highest number to date for any one round of the Scheme. Assessment panels then met throughout April and May, and results were made available to all applicants in early June. 157 applications were funded across UCD's five Colleges, totalling over €498,000. This represented 29% of all applications received and 17% of all funding requested.

#### **President's Research Fellowships Scheme**

This Scheme is intended to support academics whose research and professional development would benefit from a period of focused research, with the end result of enhancing UCD's reputation internationally.

There were five recipients of a President's Research Fellowship in 2009/10:

- Dr Damian Mooney, UCD School of Chemical and Bioprocess Engineering
- Professor Brian O'Connor, UCD School of Philosophy
- Dr Peter Haughton, UCD School of Geological Sciences
- Dr John McCafferty, UCD School of History and Archives
- Dr James O'Shea, UCD School of Philosophy

#### **Strategic and Major Initiatives Scheme**

The Strategic and Major Initiatives Scheme provides support for the development of major interdisciplinary programmes that advance the strategy for research in UCD.

Eight awards were granted during the period:

- Professor Thomas Bolger, UCD School of Biology and Environmental Science, Project title - Rosemount facility
- Professor Stephen Gordon, UCD School of Agriculture, Food Science and Veterinary Medicine, Project title -Maintenance of containment level 3 facility

- Mr Phil Hemmingway, UCD School of Electrical, Electronic and Mechanical Engineering, Project title - Investigation of shallow geothermal resources on the UCD campus
- Professor Gill Lee, UCD School of Chemistry and Chemical Biology, Project title - Modification of existing lab for microbiology
- Professor Gregory O'Hare, Centre for Sensor Web Technologies (Clarity), Project title - MicroCasting: towards automating broadcast quality capture of sports events
- Dr Kenneth O'Halloran, UCD School of Medicine and Medical Science, Project title - Hypoxic adaptation in respiratory muscle
- Professor Mark O'Malley, UCD School of Electrical, Electronic and Mechanical Engineering, Project title -Strategic research management for ERC initiatives
- Professor Donal O'Shea, UCD School of Chemistry and Chemical Biology, Project title - Bilateral China/Ireland meeting series on modern synthetic chemistry

# **Key Research Metrics and Performance Indicators**

#### **Peer Reviewed Publications**

The number of peer-reviewed publications from UCD researchers in *Web of Science*, during 2009, was 1,688, which is an average of 1.62 publications per academic staff member (staff members include permanent, permanent parttime and temporary contracts greater than three years).

#### **Number of Publications in Top Ranking Outlets**

The number of publications from UCD researchers increased four–fold between 2004 and 2009, in some of the highest impact peer-reviewed journals.

For the calendar year 2009, UCD researchers delivered the highest number of academic publications (825 of 4,057) of any Irish Higher Education Institute (HEI) resulting from Science Foundation Ireland (SFI) funded programmes (source SFI Census 2009).

#### Percentage of Research-Active Staff

In 2009/10, 80.6% of UCD academic staff were researchactive. Academic staff are defined as research-active when they have an active grant (with an end-date after 30 June 2010), or are supervising a PhD student (in the current academic year), or have had a publication in the last 2 years (June 2008 to June 2010).

#### **Competitive Peer-reviewed Extramural Awards**

During 2009, SFI awarded 23% of its total research grants, by volume, to UCD (see table 2). UCD was also awarded the highest amount of SFI funding -23% of a total of  $\le$ 171 million, and holds the highest number of SFI grants: 198 of 822 (source: SFI Annual Report and Accounts 2009).

In July 2010, the Higher Education Authority (HEA) announced the results of PRTLI Cycle 5. UCD was awarded €78.99 million, representing 22% of the total funding awarded to all universities and institutes of technology.

Institution	€ Millions	No. of Grants
University College Dublin	39.8	57
Trinity College Dublin	37.8	55
University College Cork	20.8	27
NUI Galway	18.9	30
Dublin City University	16.8	19
Tyndall National Institute	12.2	15
University of Limerick	8.4	8
NUI Maynooth	8.1	13
RCSI	3.6	10
Dublin Institute of Technology	1.8	4
Waterford Institute of Technology	1.1	3
Other	2.0	10
Total	171.3	253

## Major Research Themes - Earth Sciences, Energy and the Environment

UCD has developed a major capacity in research on energy and the environment, drawing on strong disciplines in agrifood, biology, chemistry, engineering, geology and physics. This major research theme is built on UCD's capability to find solutions to key energy and environmental challenges in collaboration with national agencies and industry partners. Under this theme, major focus areas for research included climate change, renewable energy, biosystems, urban systems and energy innovation. Some of the major programmes and key achievements during 2009/10 are outlined below.

# UCD Earth Sciences Institute (ESI) www.ucd.ie/earth

UCD Earth Sciences Institute is a centre for energy and environment research leading Ireland's response to climate change and the global energy crisis, making Ireland an innovation hub for green technologies.

- ESI secured funds under PRTLI 5 as part of the UCD Science Centre, which will provide purpose-built facilities for research and education programmes.
- The ESI PhD Programme in Earth and Natural Sciences
  was awarded funding under PRTLI 5. The programme will
  combine a wide range of relevant disciplines and
  expertise from UCD and its partner institutions. Students
  will also be enrolled in the Innovation Academy.
- ESI ran a weekly seminar series, Transforming Ireland

   mobilising innovation to meet energy and climate
   change obligations and sustainable economic
   development. The series focused on using innovation
   to convert challenge into opportunity. For that purpose,
   key leaders from the research, policy and enterprise
   communities were brought together to concentrate on
   specific environmental and energy issues.
- Dr Emma Teeling, UCD School of Biology and Environmental Science, led Ireland's participation in a unique international project to map the DNA sequences of 10,000 vertebrate species. The *Genome 10K Project* is the most ambitious study of animal evolution ever attempted and will lead to the creation of a 'genomic zoo'.
- Petroleum research continued to be a significant area for UCD, and both the Tullow Oil Research Cluster and QUAFF (a research consortium of eight of the major petroleum companies) were established. These successes were built on a very strong foundation of industrial engagement between the petroleum sector, the Fault Analysis Group and the Marine and Petroleum Geology Research Group in the UCD School of Geological Sciences.

# Electricity Research Centre (ERC) www.erc.ucd.ie

The Electrical Research Centre is a collaboration with the major players in the electricity industry, focused on tackling the fundamental and applied research questions underpinning the development of a sustainable electrical energy system. The ERC comprises 13 Industry Members (as of August 2010) and is run by an Industry Board chaired by Mr Michael Tutty, the Energy Regulator.

- In 2009/10 there were four research strands within
  the ERC: Systems (led by Professor Mark O'Malley);
  Operations (led by Dr Damian Flynn); and Networks
  (led by Dr Andrew Keane), all part of the UCD
  School of Electrical, Electronic and Mechanical
  Engineering. The fourth strand, Economics, was led by Dr
  Eleanor Denny, TCD.
- The ERC was funded by the following SFI programmes: Charles Parsons Energy Research Award, Principal Investigator, Stokes, TIDA and Research Frontiers Programme. Other major funding sources were Industry Members, the European Commission, IRCSET, Teagasc, Electric Power Research Institute, ESB Networks and HFA PRTII.
- During 2009/10, the ERC developed and coordinated the Sustainable Electrical Energy Systems Cluster proposal. This proposal to SFI brought together four institutions (UCD, ESRI, UL and NUI Maynooth), 19 collaborators and 25 industry partners. The site visit was held at the end of August 2010, with a final decision due from SFI.
- The ERC hosted a number of events during 2009/10, including: Energy Policy Issues for Ireland seminar (October 2009) and EU project *Anemos.plus* consortium meeting (June 2010).

# **UCD Solar Energy Conversion Research Cluster (SEC)**

www.seccluster.ie

The UCD Solar Energy Conversion Research Cluster develops new materials and synthesises devices that mimic the steps involved in natural photosynthesis.

- SEC members secured funding in excess of €1.44
  million. This included EU FP7 funding for the SMARTOP
  consortium, led by Fiat, to develop solar panels that
  can be incorporated into a car's roof surface. Other
  awards included Marie Curie, IRCSET Enterprise, Inspire
  Postdoctoral and PhD awards, and SFI Research Frontiers
  Programme.
- Among 22 peer-reviewed publications, one was selected as the cover feature for the autumn 2010 edition of the journal *Physical Chemistry Chemical Physics*.

 SEC members submitted two patent filings in solar cell design and hydrogen storage, and had four invention disclosures in solar technology applications.

# UCD Bioresources Research Group (BRC) www.ucd.ie/bioresources

The UCD Bioresources Research Group is built on UCD's strong foundations in bioenergy research and is developing biological engineering for environmental management in support of the Irish Government's Smart Green Economy strategy.

- UCD BRC was selected to host the European Sustainable Energy Innovation Alliance 2012 conference to coincide with Dublin City of Science 2012.
- UCD BRC Director, Professor Nicholas Holden, is a

- partner in the EU FP7 consortium, *AQUA*. This brought together the latest developments in molecular biology and communication technology to develop water quality sensors for deployment across Europe.
- Professors Shane Ward and Nicholas Holden, UCD School
  of Agriculture, Food Science and Veterinary Medicine,
  along with former PhD student Gashaw Ayalew, were
  awarded the 2010 Douglas Bomford Trust Paper Award,
  for papers published in *Biosystems Engineering*.
- A review of technologies for production, processing, and extractions of biofuels and co-products, by Dr Philip Owende, UCD School of Agriculture, Food Science and Veterinary Medicine, and PhD student Liam Brennan, ranked number two in the Elsevier Top 25 Hottest Energy Peer Review Articles. This was published in Renewable and Sustainable Energy Reviews which is one of the foremost energy research journals.

## **Major Research Themes - Global Ireland**

The aim of the Global Ireland research theme is to transform the study of Ireland and the Irish worldwide. Drawing upon Ireland's diverse and long-established capacity in the humanities and social sciences, UCD's Global Ireland theme aims to build major research programmes across a broad spectrum of inquiry, ranging from archaeology to behavioural social sciences. Global Ireland's programmes and key achievements during 2009/10 are outlined below.

# UCD Geary Institute www.ucd.ie/geary

The UCD Geary Institute conducts leading edge research on life course issues and the way public policy affects economic, social and political outcomes.

- UCD Geary maintained its global ranking in the top 5% in the field of economics, as measured by Research Papers in Economics (RePEc). In addition, in the newly created 'think-tank' category, Geary was ranked 9th (of 124) globally.
- The Institute hosted the highly successful Behavioural Economics, Policy and Business symposium in the Institute of Bankers, in May 2010. This attracted representatives from the policy, business and financial sectors.
- Funding of €3 million was secured under PRTLI Cycle
   5 to host the Structured PhD programme in Economics
   and Political Science, with Trinity College Dublin (TCD).
   EconPol consolidated the research and doctoral
   training of UCD and TCD (in the core disciplines of
   Economics and Political Science) with the policy focus
   of the Economic and Social Research Institute (ESRI), in
   order to create an international research PhD programme.

# UCD Humanities Institute of Ireland (HII) www.ucd.ie/hii

UCD Humanities Institute of Ireland serves as a creative flagship platform for inter-disciplinary research and debate in the humanities and social sciences both within the university and nationally.

- UCD Press (www.ucdpress.ie), a component of the HII, published 10 new titles during the period, including The Irish Sweep, a ground-breaking work by Marie Coleman, and Gaelic Games, Nationalism and the Irish Diaspora in the United States, by Paul Darby.
- The Irish Virtual Research Library and Archive (www.ucd.ie/ivrla), also a component of the HII, completed its first phase on 31 December 2009. By that date 35 core collections (drawn from original UCD-held material) and 16 research collections had been digitised and catalogued.

# UCD John Hume Institute for Global Irish Studies

www.ucd.ie/johnhume

The Institute's mission is to engage, connect and develop the global Irish community as an active social network of global citizens as well as engaging with the past, the present and the future of Ireland and the Irish.

- The 3rd Irish Diaspora Forum took place in November 2009, at The Royal Society, London.
- The Institute also hosted a number of international symposia including, *Hiberno-English* (March 2010) and *Irish Women and the Diaspora* (June 2010).
- Three additional PhD students and four Post Doctoral fellows were recruited to the Institute, comprising a total compliment of eight Post Doctoral Fellows and 13 PhD students. Details of student research projects are available on the Institute's website.

## Major Research Themes - Health and Healthcare Delivery

Under the major research theme of Health and Healthcare Delivery, UCD is uniquely placed to contribute to the fundamental understanding of disease mechanisms, and to translate these findings for societal and economic benefit. With a focus on major challenges that are impacting health, nationally and internationally, such as diabetes, infection, skin disease and reproductive biology, UCD's research focus under this theme also looks at providing solutions that enable wellness and independent living. In addition to an integrated and cross-disciplinary structure within UCD that encourages collaboration, UCD has created strong translational research links through its affiliated teaching hospitals and the strategic alliance of Molecular Medicine Ireland. Key programmes and achievements of 2009/10 are outlined below.

# UCD Conway Institute of Biomolecular and Biomedical Research

www.ucd.ie/conway

The Conway Institute is a community of biomedical researchers exploring cell and systems biology for creative solutions in human disease.

- Professor Walter Kolch was appointed Director of the UCD Conway Institute; Professor Kolch is also Director of Systems Biology Ireland (www.ucd.ie/sbi).
- UCD Conway researchers led three major EU FP7
  research projects: Professor Liam Gallagher, UCD
  School of Biomolecular and Biomedical Science,
  led a project that was awarded €6 million to
  investigate difficult-to-treat types of breast cancer;
  Professor Walter Kolch was awarded €12 million to
  explore genetic mutations that lead to the development
  of cancer cells; and €11 million was awarded to Syscilia,
  a collaborative research project which included UCD
  Conway Fellow and SFI PIYRA awardee, Dr Oliver
  Blacque, UCD School of Biomolecular and Biomedical
  Science.
- A paper addressing Alzheimer's disease and co-authored by UCD scientists, Professors Ciarán Regan and Dominic Walsh, both UCD School of Biomolecular and Biomedical Science, was named the number one hot paper in *Nature Medicine*, according to Thompson Reuters in September 2010
- UCD Conway postdoctoral researcher, Dr Donal Brennan, UCD School of Biomolecular and Biomedical Science, became the first Irish recipient of the European Young Researcher Award at the 2010 European Science Open Forum (ESOF).

### **UCD Institute of Food and Health**

www.ucd.ie/foodandhealth

The UCD Institute of Food and Health brings together the breadth of experience in UCD to achieve critical mass in leading-edge food and health research.

- Professor Mike Gibney, Institute Director and Dr Eileen Gibney, UCD School of Agriculture, Food Science and Veterinary Medicine, are coordinators on an EU FP7 award Food4Me - Personalised nutrition: an integrated analysis of opportunities and challenges, valued at €9 million (value to UCD of €1.1 million).
- Professor Patrick Wall and Dr Aine McConnon, both of the UCD School of Public Health, Physiotherapy and Population Science, are coordinators on an EU FP7 award FoodRisc – Food risk communication, valued at €3.8 million (value to UCD of €723,856).

#### The Charles Institute

www.ucd.ie/charlesinstitute

The Charles Institute is the first academic institute in Ireland devoted to dermatology research and training.

- The Charles Institute seminar series brought together leading international experts to speak on advances in dermatology.
- Construction began on the new Charles Institute building in November 2009; it is due for completion in late 2010.
- The Charles International Advisory Board met in February 2010 to coincide with a public lecture given by Dr David Fisher, Chief of the Department of Dermatology at Massachusetts General Hospital, Harvard Medical School, who addressed the science and risks of UV radiation and the skin.

### **Systems Biology Ireland (SBI)**

www.ucd.ie/sbi

Systems Biology Ireland brings together experts with an initial focus on the signalling networks that make cell fate decisions and govern stem cell function, with the aim of using stem cells in biotherapeutics.

- SBI researchers led a successful EU FP7 HEALTH award valued at €15 million (value to SBI of €2 million).
- Memorandums of Understanding were signed with Thomas Jefferson University in the US, RIKEN in Japan, and Manchester Centre for Integrative Systems Biology in Manchester University, UK.



# Irish Drug Delivery Network (IDDN) www.ucd.ie/iddn

The Irish Drug Delivery Network brings together the three schools of pharmacy in Ireland, UCD, Genzyme Ireland, Sigmoid Pharma and Aerogen PLC to provide a centre of excellence for research in drug delivery.

- In April 2010, IDDN welcomed a new industry partner, Aerogen, a company specialising in devices for pulmonary delivery.
- With the support of UCD Seed Funding, IDDN held the 2nd Annual Irish Drug Delivery conference which brought together top national and international speakers from industry and academia; it was attended by 80 EU delegates.

# Centre for BioNano Interactions (CBNI) www.cbni.eu

The Centre for BioNano Interactions is Ireland's National Platform for BioNanoInteraction science applied to the fields of nanosafety, nanobiology and nanomedicine. Nanoscience has the potential to revolutionise and benefit many aspects of human society, especially in the fields of Information technology and medicine.

- INSPIRE, the PRTLI Cycle 4 BioNano strand (chaired by CBNI), organised an International Conference, BioNano: Inspiring Responsible Development for Society and the Environment, which was held in conjunction with Dublin Innovation week.
- CBNI coordinated on the EU FP7 award Research Infrastructure for NanoSafety Assessment (QNano) which will start in 2010 and run for four years; this aims to integrate and develop an analytical infrastructure for nanosafety across Europe.

# Technology Research for Independent Living (TRIL)

www.trilcentre.org

The Technology Research for Independent Living Centre is a collaboration between industry and academia exploring the physical, cognitive and social consequences or ageing and developing technology solutions to address them.

- Dr Brian Caulfield, UCD School of Public Health, Physiotherapy and Population Science, was appointed the new TRIL Academic Director in October 2009.
- Version 2.0 of TRIL's BioMOBIUS™ Research Platform was released in August 2009 (www.biomobius.trilcentre.org).
- In April, TRIL announced a new funder and partner, GE Healthcare, which is investing \$3 million in 2010.

# UCD Clinical Research Centre (CRC) www.ucd.ie/crc

The Clinical Research Centre strives to discover ways of improving medical care and to establish new treatments

which will improve the quality of life for patients living with chronic illness.

- €11.2 million in funding has been leveraged by the CRC since 2006. 60% was won from Irish and European funding agencies, including SFI, HRB, IRCHSS and EU FP7. The remainder was from charitable foundations including, Wellcome Trust, Irish Heart Foundation and the Irish Cancer Society.
- The CRC has undertaken an average of 6,000 new research patient visits in the past year.
- Work is ongoing to complete an agreement with Abbott Laboratories which will see the establishment of the first academic/industry biomarker laboratory. €600K in funding was secured for the first two years of this five-year agreement.

### **Molecular Medicine Ireland (MMI)**

www.molecularmedicineireland.ie

Molecular Medicine Ireland is a partnership between UCD, UCC, NUI Galway, TCD and the Royal College of Surgeons in Ireland to coordinate their translational and clinical medical research activities with the overarching goal of generating new knowledge on the course of human diseases that could lead to the development of new diagnostics and therapies.

- MMI, in association with the UCD Clinical Research Centre (www.ucd.ie/crc), published the Guidelines for Standardised Biobanking, which were internationally peerreviewed.
- Irish Clinical Research Infrastructure Network's (ICRIN)
   Clinical Research Roadmap was launched by the
   Minister for Health and Children, Ms Mary Harney, TD, in
   June 2010 at the Royal College of Physicians of Ireland.
   The roadmap is ICRIN's contribution to the
   implementation of the Government's Action Plan for
   Health Research.

# National Institute of Bioprocessing Research and Training (NIBRT)

www.nibrt.ie

The National Institute of Bioprocessing Research and Training provides training and research solutions for the bioprocessing industry, based on an innovative collaboration between UCD, Trinity College Dublin, Dublin City University and Institute of Technology Sligo.

- Mr Joe Harford was appointed as Chairman. He has served as President and CEO of Astellas Pharmaceuticals Ireland for 20 years, and has also served as Chairman and President of the Economic Social Research Institute (ESRI); he is currently Chair of the Government's taskforce on the Green Economy.
- NIBRT and the US Food and Drug Administration (FDA) entered into a research collaboration which involved NIBRT's global leader in glycobiology, Professor Pauline Rudd, working at NIBRT's research facilities in Dublin.
- Construction is underway on the UCD campus to provide NIBRT with a range of facilities for academia and industry, including training, beta-testing and showcasing new products and technologies.

## Major Research Themes - Information, Computation and Communication

The field of Information, Computation and Communication has been identified as being of major strategic importance to Ireland's ambition of creating a knowledge economy. UCD's strengths in broad research areas such as life sciences, economics, social sciences, climate and environmental modelling, all require a deep understanding of the informational relationships and dynamics that are achieved through the computational properties of the underlying systems themselves. Within UCD, this major research theme builds on the following unique collaborative programmes:

### **CLARITY - Centre for Web Sensor Technologies**

www.clarity-centre.org

CLARITY focuses on the intersection between adaptive sensing and information discovery, to develop innovative new technologies and contribute to improving the quality of life of people in areas such as personal health, digital media and management of our environment.

- CLARITY secured funding for 10 EU projects with a combined direct income in excess of €4 million.
- Two new commercial partners, Disney Research and Episensor, bring to six the number of CLARITY's industry partners. In total, these partners contributed €3 million to the initial €11.8 million in funding from SFI. By leveraging this investment, CLARITY secured a total of €9.4 million in additional funding from the following sources: industry collaborations (€1.5 million), 10 successful EU FP7 projects (€2.9 million), and other national funding awards (€5 million from Enterprise Ireland, IRCSET and EPA), bringing the Centre's total funding to over €24 million.
- During the past year, CLARITY launched a major new research collaboration with Disney Research and ESPN, which received significant press coverage. As part of this project the UCD hockey pitch has been equipped with monitoring towers and state of the art camera tracking systems.

# **UCD Complex and Adaptive Systems Laboratory (CASL)**

www.casl.ucd.ie

UCD Complex and Adaptive Systems Laboratory is a dynamic multidisciplinary research community advancing scientific knowledge through mathematics and computation, breaking down the usual disciplinary walls that hinder breakthrough creative research by putting computer scientists, mathematicians, electronic engineers, geologists, biologists and financial academics in the same space.

- Professor Scott Rickard was formally appointed Director of CASL in December 2009, and CASL was officially ratified as a major research Institute in UCD in June 2010
- CASL consolidated its seven research clusters into four new clusters which will provide a platform for identifying and catalysing future collaborations. The new research clusters are: Natural Computing and Optimisation; Networks and Data Analysis; Simulation Science and Extreme Events; and Security and Trust.
- CASL PIs, together with the UCD Schools of Mathematical Sciences, Computer Science and Informatics, Business, Sociology, and Systems Biology Ireland, were successful in securing in excess of €4 million from PRTLI Cycle 5 for their PhD programmes.

# Clique – Graph and Network Analysis Cluster www.cliquecluster.org

The Clique research cluster will address the development of computational techniques for the analysis and visualisation of network data - that is, data on collections of entities and the links between them.

- Clique's Digital Enterprise Research Institute Galway group was instrumental in securing a total of €2.7 million in EU FP7 funding through two successful project bids.
- Clique continued to collaborate closely with its industry partners IBM and Norkom.

# FMC<sup>2</sup> - Financial Mathematics and Computation Cluster

www.fmc-cluster.org

FMC<sup>2</sup> is a research collaboration between UCD, DCU, NUI Maynooth and industry partners. The Cluster brings together complementary expertise in financial mathematics, financial economics and computer science to create an holistic research programme in asset and risk management.

- FMC<sup>2</sup>, led by Professor Anthony Brabazon, UCD School of Business, was awarded funding of €4.1 million by SFI in October 2009.
- In May 2010, a conference was organised by the Cluster at the Institute of Bankers, which focused on regulating financial market liquidity and stability.

# National Digital Research Centre (NDRC) www.ndrc.ie

National Digital Research Centre is an independent enterprise dedicated to accelerating research from idea to income. NDRC's collaborative approach with technology and business innovators drives greater collective success while cultivating bolder attitudes towards invention and investment

- In December 2009, the NDRC established a platform comprising €12 million in investment over 17 separate research projects. The NDRC has 14 commercial partners and six associate partners engaged on projects.
- NDRC expanded its portfolio with seven new projects with applications in the areas of entertainment, media, healthcare, energy and telecommunications. These new projects brought investment to a total of €14.4 million.
- In February 2010, the NDRC project MetaLabs was awarded Best Newcomer with International Potential at the Digital Media Awards. March 2010 saw the launch of Inventorium at NDRC, a €2.6 million EU-funded project to stimulate digital sector innovation.

## UCD's Major Research Programmes, Centres and Institutes

#### **UCD Major and Multidisciplinary Research Institutes**

UCD Conway Institute for Biomolecular and Biomedical Research

**UCD Geary Institute** 

**UCD Complex and Adaptive Systems Laboratory** 

UCD Institute of Food and Health

UCD Humanities Institute of Ireland

Centre for Synthesis and Chemical Biology

UCD Earth Sciences Institute

UCD Urban Institute of Ireland

## SFI Centres for Science, Engineering and Technology (CSETs)

CLARITY - Centre for Sensor Web Technologies

Systems Biology Ireland

### **UCD-led SFI Strategic Research Clusters (SRCs)**

BioNanoInteract

Irish Drug Delivery Network Reproductive Biology

Solar Energy Conversion

Financial Mathematics Computation (FMC<sup>2</sup>)

Clique

### **Major Inter-Institutional Collaborative Programmes**

Molecular Medicine Ireland (MMI)

National Institute for Bioprocessing Research and Training (NIBRT)

Technology Research for Independent Living (TRIL)

National Digital Research Centre (NDRC)

### **UCD Research Centres**

UCD Bioresources Research Centre

Electricity Research Centre

UCD Clinical Research Centre (CRC)

Dublin Academic Medical Centre (DAMC)

National Virus Reference Laboratory

### **UCD Thematic Institutes and Archives**

The Charles Institute

Claude Shannon Institute

UCD Institute for Sport and Health

UCD John Hume Institute for Global Irish Studies

UCD Micheál Ó Cléirigh Institute

UCD Clinton Institute for American Studies

UCD Institute for British Irish Studies

Irish Institute for Chinese Studies (UCD Confucius Institute)

Irish Virtual Research Library and Archive (IVRLA)

Irish Social Science Data Archive (ISSDA)

www.ucd.ie/conway

www.ucd.ie/geary

www.casl.ucd.ie

www.ucd.ie/foodandhealth

www.ucd.ie/hii

www.ucd.ie/cscb

www.ucd.ie/earth

www.ucd.ie/uii

www.clarity-centre.org www.ucd.ie/sbi

www.cbni.eu/sections/ProjectsFunding/BioNanoInteractSRC

www.ucd.ie/iddn

www.ucd.ie/reproduction

www.seccluster.ie

www.fmc-cluster.org

www.cliquecluster.org

www.molecularmedicineireland.ie

www.nibrt.ie

www.trilcentre.org

www.ndrc.ie

www.ucd.ie/bioresources

www.erc.ucd.ie www.ucd.ie/crc

www.ucd.ie/medicine/aboutus/healthcareinpractice/dublinacademicmedicalcentre

www.ucd.ie/nvrl

www.ucd.ie/research/charlesinstitute

www.shannoninstitute.ie

www.ucd.ie/instituteforsportandhealth

www.ucd.ie/johnhume

www.ucd.ie/mocleirigh

www.ucdclinton.ie

www.ucd.ie/ibis

www.ucd.ie/china

www.ucd.ie/ivrla

www.issda.ucd.ie



## **Maximising Impact of UCD's Knowledge and Expertise**

UCD continues to forge strategic partnerships. Of these, the *TCD/UCD Innovation Alliance* is the focus of the university's innovation efforts. Under the innovation pillar, UCD's mission is to support, feed and facilitate the Government's goal for sustainable economic renewal: *Building Ireland's Smart Economy*. UCD is translating its knowledge and expertise for the benefit of Ireland's economy and society.

The two universities are working closely with the State, and the business and venture capital communities, to develop a world-class ecosystem for innovation that will drive enterprise development in Ireland. This will create an environment in which UCD's students and graduates will flourish.

Key national partnerships have already been developed which will be explored further. These include Molecular Medicine Ireland (MMI), The National Institute for Bioprocessing Research and Training (NIBRT), The National Digital Research Centre (NDRC) and the Technology Research for Independent Living (TRIL) Centre.

A series of joint events is advancing the *Alliance's* objectives. The Engineering Design Innovation Open Forum saw 60 postgraduate and postdoctoral research projects showcased from across UCD and TCD. The event was opened by Conor Lenihan, T.D., Minister for Science, Technology, Innovation and Natural Resources.

Other events include the Transforming Ireland Series led by the UCD Earth Sciences Institute (ESI). These weekly seminars focus on using innovation to convert challenge into opportunity by bringing together key leaders from the research, policy and enterprise communities. Topics include the challenges of climate change, the potential of wave power and the benefits of low energy adaptable homes, among others.

#### **NovaUCD**

NovaUCD, the Innovation and Technology Transfer Centre, is the hub of innovation and knowledge transfer activities at UCD. It is responsible for the commercialisation of intellectual property arising from UCD research, and the development of cooperation with industry and business communities. NovaUCD, as a purpose-built centre, also nurtures new technology and knowledge-intensive enterprises.

Eight new high-tech ventures located to NovaUCD during 2009/10, bringing the total to 37. These companies occupy more than 90% of the incubation space available and collectively employ over 180 people.

Fifteen new high-tech and knowledge-intensive business ventures involving over 30 individuals are currently taking part in NovaUCD's 2010 Campus Company Development Programme. The new ventures are commercialising research undertaken across a range of UCD Schools, including

Agriculture, Food Science and Veterinary Medicine; Computer Science and Informatics; Electrical, Electronic and Mechanical Engineering; Medicine and Medical Science; and Physics.

During the year 55 inventions were disclosed and 22 priority patent applications were filed across all areas of life sciences, engineering and information communication technology. 10 licence agreements were also signed with a range of indigenous and international companies. In addition, over €630,000 has been generated from commercialisation of research activities in the past year.

#### Other highlights include:

- Equinome, co-founded by Dr Emmeline Hill, UCD School
  of Agriculture, Food Science and Veterinary Medicine, and
  leading Irish race horse-trainer, Jim Bolger, was
  the overall winner of the NovaUCD 2009 Campus
  Company Development Programme Award. Equinome has
  launched a breakthrough genetic test that can identify
  the optimum racing distance for individual thoroughbred
  horses.
- Visor, a NovaUCD graduate company, which has developed an internet-based online accounting platform, completed a €3.5 million funding round.
- Several NovaUCD client companies won prestigious awards during the year
  - Alternative Energy Resources (AER) won the national 'Rising Star' Award at the 2009 Deloitte Technology Fast 50 Awards.
  - BiancaMed won the Product/Service Innovation
     Category Award at the inaugural *Irish Times* All-island
     Innovation Award.
  - HeyStaks Technologies was the overall winner of the inaugural Europe-wide UNICA Entrepreneurship Competition for Students and Young Researchers.



# Fostering Innovation and Entrepreneurship at Third and Fourth Levels

The *Innovation Academy* is the educational centrepiece of the *Innovation Alliance*. Its mission is to develop a new breed of creative graduate, expert in their discipline, but with a thorough understanding of how innovation can rapidly convert knowledge, ideas and inventions into products, services and policies for economic and social benefit. Through its formation, the two universities will 'future proof' quality graduate education by dove-tailing with discipline-based PhD programmes. This will enhance Ireland's reputation for PhD education and attract high-quality international students.

In 2009/10 there were a number of high profile appointments that have further advanced the *Innovation Alliance's* reputation. Stanford President, Dr John L. Hennessy, took on the role of the *Alliance's* first international advisor. His involvement will be of great benefit, not only to students in the *Innovation Academy*, but also to current and future start-up companies.

Professor Paul Coughlan (TCD) and Professor Suzi Jarvis (UCD) were appointed as Course Co-Directors in the *Innovation Academy*. These are key academic leadership roles and will have primary responsibility for the joint Diploma/Certificate in Innovation and Entrepreneurship within the *Academy*.

At third and fourth levels, UCD is now mainstreaming courses in innovation and entrepreneurship. This will offer all postgraduate students access to a range of transferable skills and a knowledge of business, giving them a wider set of career options beyond their core discipline. This is expected to make a significant impact on increasing the number of UCD spin-out companies.

#### **NovaUCD**

NovaUCD was involved in the development and delivery of accredited courses for postgraduate students and non-accredited courses for staff and researchers. Examples include: Innovation and Knowledge Transfer - Introduction to Entrepreneurship and Transferring Technology from Research to the Knowledge Economy; and dedicated workshops for the UCD Institute of Food and Health, UCD Conway Institute, and the Education and Research Centre.

# **Fostering Innovation Among UCD Staff**

Over the course of the Strategic Plan, UCD will look to foster and reward university staff through specific inclusion of innovation as a criterion for promotion. This is an important element of the *Innovation Alliance* as it ensures that innovation stretches from one end of the education spectrum to the other. In addition, it is intended to build an innovation track record into UCD's recruitment criteria where appropriate. This will attract and inspire the best faculty, which will, in turn, be of greater benefit to Ireland's aspirations of becoming a smart economy.

#### **NovaUCD**

At NovaUCD, a major objective is to increase awareness of the university's contribution to innovation. This is seen as critical. By developing such a culture of innovation and entrepreneurship around its staff and researchers, there is greater opportunity for the successful identification and commercialisation of intellectual property. By promoting awareness and embedding this ethos of innovation and commercialisation within the research community, NovaUCD is encouraging the seeds of valuable intellectual property, which can be harnessed at a later stage for the benefit of all stakeholders.



# **Student Administrative and Support Services**

UCD's student advisers, counselling services, health services and chaplains continue to offer a wide range of vital supports to students on financial, medical and mental health, as well as other issues.

During 2009/10, UCD Registry and other university colleagues collaborated to enhance the administrative, support, information and technical services and systems required to support UCD students and staff. These include the introduction of a more user-friendly Gradebook – the system of entering grades in UCD - which represents a huge improvement for staff.

Students can now pay their fees by semester, providing greater flexibility for students at a time when many are experiencing financial difficulties. The new UCD student card will now last for the duration of a student's programme. Further developments for using Smartcard technology are planned.

Entry to graduate taught programmes has been streamlined by giving Admissions Tutors delegated admissions authority. Multiple offer rounds were also introduced across the year to facilitate quicker decision-making and notification to applicants.

Closer relationships were fostered with secondary schools, prospective students, and Guidance Counsellors through school visits, recruitment fairs and campus tours. Secondary school students got an opportunity to experience university life at UCD's Open Days, UniLife Summer School and Open House events.

From the 2010 intake, applicants to the BA could decide in advance the degree subjects they wished to take. This provides greater certainty and responds to a need articulated by guidance counsellors and prospective students.

On the academic policy side, Professional Doctorate regulations were approved, and revisions made to both the Extenuating Circumstances and Transfer Regulations. Responsibility for administering the Extern Examining system was devolved from the NUI, and new Extern policies were also put in place.

A key development during 2009 was the introduction of a confidential database management system to facilitate information flow among the various support units. UCD is committed to providing an integrated support system, which ensures that UCD students are supported in a caring, compassionate and effective manner.

#### **UCD Student Health Service**

www.ucd.ie/stuhealth

Key developments at the UCD Student Health Centre include the establishment of a sexually transmitted infection screening clinic. This was established with the backing of the UCD Students' Union. The centre now charges for services and these are essential to maintain service levels, in light of budget constraints. The charges were introduced with due regard for those who may be vulnerable and unable to pay.

## **UCD Chaplaincy**

www.ucd.ie/chaplaincy

The UCD chaplains are an integral part of the support service for UCD students and play a wider role in supporting campus life. Several initiatives were introduced by the chaplaincy service to reflect the increasing number of faiths among the UCD students. These initiatives focus on dialogue and understanding among the faiths, with each faith explaining its rich history and beliefs.

## **UCD Student Counselling Service**

www.ucd.ie/stuhealth/counsellingservice

The UCD Student Counselling Service provided 3,206 counselling sessions. In addition to face-to-face consultations, the service offered a series of talks to staff and students, including: Assisting Students in Distress; Depression: How to Help; Exam Stress and Anxiety Management; and established a regular support group for PhD Students.

Students have not escaped the impact of the economic downturn. The UCD Welfare, Assistance and Child Care funds provided over €350,000 of support in 2009/10.

## **UCD Student Advisers**

www.ucd.ie/studentadvisers

To ensure that new students enjoy a smooth transition into university, UCD continues to enhance its start of year Orientation Programmes. Through the use of Orientation Guides, Peer-Mentors and Student Advisers all incoming students are provided with timely, relevant and supportive information. The Peer-Mentoring programme ensures this support continues beyond the Orientation period. Student Advisers continue to provide a frontline support service for UCD students.





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- 1. The UCD Choral Scholars, under Artistic Director Desmond Earley, at a performance with the EU Chamber Orchestra in Queen's Theatre, Barnstaple, Devonshire in Spring 2010
- 2. President of the UCD Women Graduates'
  Association, Dr Yvonne McGarry-Groarke,
  presents a cheque for €2,000 to the Students'
  Union in aid of its Discover UCD outreach
  programme. Pictured (I-r) are SU Education Officer
  Donnacha Ó Súilleabháin; Welfare Officer Scott
  Ahearn; and President Gary Redmond. Now in
  its seventh year, the Discover UCD outreach
  programme sees groups of primary school children
  visiting UCD each March to catch a glimpse of
  university life
- Conor Geoghegan in action against Trinity's Brian Coyle in the Annual Colours Match in Donnybrook Stadium
- 4. Pictured with Susan O'Driscoll of Temple St. (third from right) are students from the Business and Law programme who raised money to support Temple St. Children's Hospital and FLAC
- 5. The UCD Volunteers Overseas Haiti Earthquake Appeal involved students, staff and alumni who have raised over €100,000 to date. UCDVO has been working in Haiti since 2005
- 6. Pictured at an extraordinary meeting of the UCD Literary and Historical Society, former UCD Societies' Officer Paddy O'Flynn was honoured with the title of Vice-President of the Society, in recognition of his many years' service and outstanding contribution to UCD extra-curricular life
- 7. Dame Edna Everage (aka Barry Humphries)
  was at UCD in September 2009, to receive a
  James Joyce Award from the UCD Literary and
  Historical Society, in recognition of his career as
  a comedian and entertainer. He is pictured with
  Commerce student, Alexandra Tyrrell
- 8. UCD celebrate the League of Ireland Division 1 title and entry into the Airtricity League. UCD's Ronan Finn was subsequently awarded the 2009 PFAI Player of the Year at a prestigious ceremony at the Burlington Hotel



# **Sports, Societies and Other Activities**

UCD is committed to providing a holistic journey of discovery where students are given every possible encouragement and support to achieve their potential, in both academic and personal spheres. UCD Sports Clubs and Societies provide an environment where this journey is realised.

#### **Societies**

The UCD Community Musical, *Footloose*, took place in the O'Reilly Hall. The production's success has given rise to a new and successful UCD Musical Society.

In competitive debating, former Law Society Auditor Sean O'Quigley won the *Irish Times* prize, while graduates Eoghan Casey and Paddy Rooney were crowned European Debating Champions.

The UCD Volunteers Overseas Society is a prime example of active citizenship, and 115 staff, students and alumni visited developing countries to assist in educational and building projects.

The UCD St Vincent de Paul Society provides financial assistance to those in need. During 2009/10 the society initiated a new fund to support UCD students and their families who may face difficulties during the current recession.

The Law Society organised the last major debate of the Lisbon Treaty campaign in the O'Reilly Hall. Speakers included former Taoiseach Garret Fitzgerald, former European Parliament President Pat Cox and Declan Ganley of Libertas. It was chaired by former Taoiseach Bertie Ahern T.D.

Major guests who addressed student societies included Ardal O'Hanlon, Bill Bailey, Chris Eubank, Erin O'Connor, and the Rt. Hon Beverley McLachlin PC, Chief Justice of Canada.

The Law Society was named 'Society of the Year 2010', while UCD LGBT Society took the 'Small Society of the Year' title.

## **Sport**

The establishment of the Elite Athlete Academy is a joint venture between UCD Sport and the UCD Institute for Sport and Health. This is part of the *UCD Ad Astra Academy*, and 18 students have already registered.

The UCD Student Learning, Leisure and Sports Complex is expected to be completed by May/June 2011.

#### **Sporting Highlights:**

Ladies' Boat

At the University Championships the Senior Eight and Four squads both secured gold medals. The Intermediate Eight crew also won. Claire Lambe was selected to represent Ireland at the World Under 23 Championships and the European Championships.

#### Men's Boat

It has been a fantastic twelve months for one of UCD's oldest clubs with victories at the Skibereen, Neptune and Queens Regattas, the University Championships and Henley Royal Regatta.

Finbar Manning and David Neale were members of the Senior Eight that won Bronze at the World University Rowing Championhips. Anthony English was selected to represent Ireland at the World Under 23 Championships.

#### Cycling

The club won its first national team success since 1997 at the Corkman 3 Day stage race. Off-road, Cait Elliott captured the National Mountainbiking title.

#### Men's Golf

Sports scholar Gerard Kelly was victorious in the University Championship at Enniscrone. He was selected to represent Ireland at the World University Golf Championships in June.

#### Handball

Marianna Rushe won both the Doubles and Singles Ladies Open events at the World Collegiate Handball Championships in America.

#### Men's Rugby

The Senior team secured victory in the Dudley Cup (University Championships) beating Queens University 60-21 in the final. The Under 21 team secured the Purcell Cup, beating rivals St. Mary's.

Several club members also represented the club on provincial and national sides, while at Senior level Robert Kearney and Brian O'Driscoll continued to represent Ireland with distinction.

#### Men's Soccer

UCD's biggest club won numerous trophies, including all four intervarsity competitions, and the Colleges and Universities Football League Championship. The first team secured promotion to the premier division of the League of Ireland after winning the first division title.

#### Tae Kwon Do

Niall Nelligan won gold in sparring at the I.T.F. European Championships in Croatia 2009, and gold at the University Championships, 2010.



## **Finance**

The university expects to generate a surplus of  $\in$ 0.7 million for the financial year ending 30 September 2010, on its HEA core funded activities. This will reduce the accumulated deficit to  $\in$ 11.2 million.

For the second consecutive year the university has reduced its accumulated deficit. This has been achieved despite the progressive decline in the level of State funding, which saw the State grant funding cut by a further  $\in$ 7 million. This was in addition to the grant cut of  $\in$ 11 million for UCD, arising from the Exchequer funding cut for pay rate reductions throughout the public sector. The surplus was generated without the aid of one-off mitigating factors that occurred in 2008/9. Substantial expenditure cuts were made across the university, and credit is due to those who made sacrifices to minimise the impact on students.

Commercial income generation makes a valuable contribution to the surplus figure. In the first deal of its kind in an Irish university, UCD completed a tender for the exclusive supply of soft drinks on the campus, the income from which will help fund student related activities. A number of other exclusivity contracts are planned.

Income from ancillary activities continued to increase. The university took over summer accommodation lettings at UCD, a function previously managed by USIT.

New residences at Roebuck Castle also came on stream for 134 students, and full ownership of the Belgrove student residences reverted to UCD, at the end of a 20 year public private partnership financing arrangement.

In order to meet the strong demand for student accommodation, the university has been pro-active in seeking suitable external accommodation. For that purpose, accommodation in Muckross Park College in Donnybrook was acquired on a three year lease.

The total number of student bed units now stands at 2,738.

In partnership with university suppliers, significant savings in non-payroll expenditure were accomplished during the year. Measures included rebates and discounts from suppliers, and the wider use of tendering, as well as offers of 'value add' initiatives. UCD's Procurement Office played a vital role in negotiating with suppliers and awarding tenders.

The continuing rollout of the electronic purchase order processing systems also helped to drive efficiencies and control costs.

The introduction by Government of the Employment Control Framework required the university to reduce staff numbers and payroll costs. A coordinated approach taken by the university's Budget Review Committee ensured that the university met its staff reduction targets.

Following discussions with the HEA and the Department of Education and Skills and the Department of Finance, UCD, and other universities that operated their own pension funds, transferred the assets and associated pension liabilities for the UCD 1995 Contributory Pension Scheme to the Minister for Finance. This was done through the introduction of the Financial Measures (Miscellaneous Provisions) Act. This Act makes legal provision for the State to underwrite the net pension liabilities of the scheme and, consequently, the payment of pension obligations are guaranteed by the State and will be met on a pay-as-you-go basis in future.

Present indications show that the coming year will see further cuts in grant funding. The university's internal resource allocation model (RAM), which is the mechanism by which funding is allocated, has substantially improved the planning and resource management capabilities of UCD. These improvements are helping to increase efficiencies and channel scarce resources to priority areas within the university.

## **Human Resources**

The delivery of human resource policy and practice at UCD has faced a number of challenges in 2009/10.

#### **Developments**

One of the most significant developments of the past year was the ratification of the Public Service Agreement, 2010-2014 (the Croke Park Agreement). Although the agreement was not ratified by all public sector unions, it was formally adopted by the Public Sector Committee of the Irish Congress of Trade Unions in June. It will now form the basis of significant changes that will be introduced in the public sector. In return for guarantees relating to pay levels and non-compulsory redundancies, the agreement provides for a range of changes to work practices and service delivery mechanisms. Within the third level sector there are provisions relating to a review of academic contracts (including provisions relating to working time), development of workload models and cooperating with re-deployment measures. More detailed implementation measures have been put in place both at national and sectoral levels, and HR policies within universities will be shaped in the context of the provisions of the agreement.

Prior to the adoption of the Croke Park Agreement, there had been a substantial level of activity with regard to HR measures on a national front. Many of these involved cost saving dimensions which needed to be integrated into local processes in a compressed time scale. A key challenge for UCD HR has been the unforeseen demand to implement these significant, unscheduled changes to public policy and HR practices. This challenge is likely to remain for the foreseeable future. There are many examples in the past year where UCD HR has had to respond at short notice to changes in Government policy: the introduction of the Incentivised Scheme for Early Retirement; the Special Incentive Career Break Scheme; the Shorter Working Year Scheme; and other cost reduction measures, including the Financial Emergency Measures in the Public Interest legislation. Some of these initiatives led to a national strike in November 2009. UCD, however, remained open during this period.

An underlying challenge for the university and for HR has been the continuation of the Employment Control Framework, which is designed to reduce numbers in the university sector by 6% between December 2008 and December 2010. This target involves a significant impact on the university and has required considerable effort on the part of all units to achieve this. While UCD is on target to meet the required reductions, it continues to make the case robustly to Government, with its colleague universities, on the detrimental impact that such cuts have on the very sector which is required to lead the way in the development of the knowledge economy.

#### **Progress to Date**

UCD HR has also embarked on a number of process improvement projects which will conclude by the end of 2011. These projects will be advantageous to staff and improve efficiency in the delivery of some key services.

The Management of Sick Leave project involves the roll-out of core time and attendance to Schools/units to facilitate the recording and management of sick leave at a local level. This will also ensure that social welfare benefit is recovered from eligible staff and reimbursed to the appropriate School/unit. Other examples include the online timesheet project for hourly paid staff and the Core Pensions Project (self service access to pension records). These conversion-to-electronic based processes will have a significant impact in terms of efficiency gains.

Policies/supports were also in development to enable staff to support, coach and mentor. These include the piloting of an internal coaching programme, the launch of academic mentoring, the ongoing development of PMDS and targeted management development activities, such as the Head of School Orientation programme. Further initiatives include the selection and appointment of Support Colleagues as an intervention in dignity and respect issues and the active promotion of external mediation as an alternative resolution mechanism. The HR Partner role in the Colleges also provides key support to School management and staff.

UCD HR collaborated with UCD Research to enable the university to become the first in Ireland to launch a careers framework for Post-Doctoral Research Fellows. The UCD Research Careers Framework is based on the proposals outlined in the Advisory Science Council (ASC) report, Towards a Framework for Researcher Careers. Through this framework, UCD will support Post-Doctoral Research Fellows to develop a wide range of skills supporting career mobility between academia, industry, public sector and enterprise.

In line with the new UCD Strategic Plan, UCD HR will be developing a detailed HR Strategy. In addition, under the auspices of the Quality Office, UCD HR is also about to undertake a quality review. Both exercises will enable UCD HR to refine its service offerings to ensure that they continue to be in line with university needs and expectations.

# **New Appointments**

## The appointments listed in the table are those made in the period 1 September 2009 to 31 August 2010

## **Appointments to Professor**

The table below sets out the academic appointments in the period of the Report to positions of Professor and includes both new recruits to UCD and UCD staff promoted (prior to the introduction of the moratorium on promotions).

Name	UCD School
Professor Orla Feely	UCD School of Electrical, Electronic and Mechanical Engineering
Professor Patrick Lonergan	UCD School of Agriculture, Food Science and Veterinary Medicine
<b>Professor Gerardine Meaney</b>	UCD School of English, Drama and Film
Professor Maarten Nieuwenhuis	UCD School of Biology and Environmental Science
Professor Jean-Michel Picard	UCD School of Languages and Literatures
Professor Jennifer Todd	UCD School of Politics and International Relations
Professor John J Walsh	UCD School of Geological Sciences
Professor Robert Gerwarth	UCD School of History and Archives
Professor Giovanni Ciccotti	UCD School of Physics
Professor Diane Sonnenwald	UCD School of Information and Library Studies
Professor David Farrell	UCD School of Politics
Professor Zorica Nedovic-Budic	UCD School of Geography, Planning and Environmental Policy
Professor Robert van Krieken	UCD School of Sociology
Professor Frederic Dias	UCD School of Mathematical Sciences

# Library, Information and Knowledge Management

Information and knowledge are fundamental to all of UCD's activities. The ICT infrastructure of the university provides a platform for innovation and learning, enabling the widespread dissemination of electronic information.

UCD Library plans to re-align the Library's services and organisational structure with the university's strategic needs, as well as responding to changing trends in publishing and the dissemination of scholarly information.

The focus in 2009/10 was on two key areas: networking and collaboration. Irish university libraries have established a successful collaborative approach to licensing access to electronically published resources, through the Irish Research e-Library (IReL). This cooperative model will now be extended to other areas of Library operations.

#### **Progress to date**

The following progress was made in developing the infrastructure needed to support this approach: UCD's library holdings are now available through OCLC WorldCat (a free online database representing thousands of international libraries and archives); a tender was initiated for a new library management system; and renewed efforts were made to coordinate remote document storage with IUA libraries and the National Library of Ireland. In addition, a redevelopment plan for the James Joyce Library and the adjacent Newman Building was launched.

The Library continued to focus on integrating information literacy skills in academic programmes and on improving the management of reading lists at UCD.

Support for university research was strengthened: with the closure of the PRTLI-funded project, the Irish Virtual Research Library and Archive (IVRLA), UCD Library took steps to integrate support for development of this resource into its general operations, identifying IVRLA as the foundation of an expanded digital library programme and a platform for innovation in digital humanities research. It also engaged in interdepartmental efforts to improve support for geographic information services at UCD, and participated in planning to provide a sustainable future for the Irish Social Science Data Archive (ISSDA).

#### **Information Technology**

The IT Plan for 2009/10 supported UCD's strategic plans by enabling the development of an innovative technology infrastructure, alongside the systems and services which deliver electronic content to students and staff.

In 2010, UCD Connect was upgraded. This offers a new user interface and greatly enhanced mobile access

capabilities to UCD's primary information services portal. A Google calendar was also introduced. The Blackboard e-Learning platform was upgraded in July 2010 to provide the latest online facilities for interactive access to course materials and blended learning. The new service extends student interaction by enabling use of inbuilt blogs and wikis, along with course materials, quizzes, assignments, surveys and discussion fora.

The introduction of *Poll Everywhere*, a new interactive teaching technology, allows students to respond in real time to polls that are part of a course plan. Lecture capture services in the Daedalus building, and through mobile capture option, continued to be popular.

Work continued on services that provide access to new, scalable computational resources and improved communications technologies: in 2010 a major cloud computing initiative was pursued, while the Research IT team successfully integrated UCD's Phaeton Cluster with the Amazon external cloud compute facilities. This created a 'UCD Cloud' with direct access for UCD users. The additional capacity complements the existing resources at the Daedelus Data Centre, extending UCD's research capacity and accelerating the pace of computationally enabled research. In August 2010, the Stokes compute cluster was upgraded through a collaboration led by the Irish Centre for High End Computing, and supported by seven Higher Education institutions. The new system sits in the top 300 world high performance compute installations and continues to be hosted at the UCD Data Centre.

Efforts are being directed specifically at supporting the *Innovation Alliance*. To that end, UCD IT Services has collaborated with TCD IS Services to implement a flexible wireless service (eduroam) that enables the user to access e-resources from any location within the *Alliance*.

## **University Relations**

The University Relations office manages *inter alia* the external and internal communications functions of the university. Primarily concerned with building and enhancing the reputation of the university among stakeholder groups, the office manages the projection of the UCD brand, major university events, media relations, marketing to prospective students, the production and publication of university-level online and print communications, as well as the processes around internal communications.

#### **Progress to Date**

#### **Staff Communications**

In 2009/10, University Relations developed and launched a new staff intranet site. This facilitates access to agendas and minutes from Senior Management Team meetings and other resources. Ongoing support was provided for the monthly cascade email from the President, which provided a feedback mechanism for staff.

#### **Student Communications**

Following the successful central marketing campaign for graduate studies in 2009, a second campaign was initiated in 2010. Responding to a strategy document prepared by the Directors of the Graduate Schools, a comprehensive plan to support the ongoing recruitment of students was developed.

For the undergraduate population, strong communications programmes were developed, explaining the unique features of UCD degrees. The early success of the video wall prompted the production of subject-specific videos, and the recruitment of a team of UCD student videographers. Social media channels such as Facebook played an increasing role. YouTube performed particularly well, with a ten-fold increase in viewership ensuring that UCD messages reached a global audience.

## Media Coverage

University Relations continued to provide a round-the-clock service to journalists, promoting the achievements of staff and students as well as responding to queries.

Strong UCD stories which achieved high-impact coverage included: the discovery of new autism genes; the expedition to explore the impact of climate change on the world's oceans; the first sequencing of the 'Irish' genome; and the fight against international Cybercrime. The popularity of palaeontology was proven by the strong international interest in a number of dinosaur discoveries involving UCD

scientists. Media highlights for UCD included the publication of the university's new Strategic Plan, Irish companies doing business with China and student sporting achievements.

#### **Innovation Alliance**

In advance of full implementation of the *TCD/UCD Innovation Alliance*, a range of communications services, including a website to promote the *Alliance*, was put in place.

#### **UCD Remembering Newman**

John Henry Newman was the founding rector of the Catholic University of Ireland, UCD's antecedent institution. In advance of his beatification, and in conjunction with the UCD International Centre for Newman Studies, plans were put in place to organise a series of events under the heading 'UCD Remembering Newman'. Planned events for September 2010 included: an exhibition in Newman House of Newman artworks and artefacts; engagement with incoming students; a lecture by Professor Joseph O'Leary (Sophia University, Tokyo); and an ecumenical service broadcast live on RTÉ 1 television.

#### **Other Roles**

University Relations was responsible for the writing, production and publication of *UCD Today*, the UCD homepage and the *Report of the President*. The office also provided support to other units in terms of content, production and quality control of marketing and communications materials.

The office facilitated major university events, such as the visits in March 2010 by the President of The Democratic Republic of Timor-Leste, Dr José Ramos-Horta and the Bloomsday Honorary Conferring ceremony on 16 June. The UCD Carnival Day was held in June, attracting over 600 staff, their families and friends.

Over the winter of 2009/2010, University Relations was responsible for the management of UCD's Pandemic A (H1N1) Response Communications Campaign.

Major emergency planning included a desktop exercise involving An Garda Síochána and nominated UCD staff. It was held on campus in October 2009, and simulated a firearms and hostage situation which was completed successfully.





- 1. Pictured at the fourth UCD Alumni
  Relations 'Characters in Conversation'
  series, were (I-r): Aine Gibbons, UCD VicePresident for Development; broadcaster
  Olivia O'Leary; and actress Rosaleen
  Linehan
- 2. In 2009, UCD launched a Cycle to Work Scheme which allowed staff to purchase a bicycle and associated equipment taxfree. Pictured are some of those who availed of the scheme (I-r): Patrick Walsh (History and Archives); John McCafferty (History and Archives); Elaine Cregg (College of Arts and Celtic Studies); Elaine Byrne (Registry); Henna Laamanen (Registry); Elva Johnston (History and Archives); Marian O'Connor (Graduate Studies); Stephen Bowie (Registry); and Marie O'Flanagan (Registry)
- 3. The UCD University Relations Office actively engages with the media to promote the activities and achievements of the university to a national and international audience
- 4. UCD Science Centre development is ongoing with the next phase expected to be open by early 2011. This will be followed by the construction of space for teaching, research and innovation activities (as pictured)
- 5. Pictured at the 2010 Bloomsday celebrations, were (I-r): Professor Tadhg Begley; Professor Raymond Dwek; Professor Martin Carey; Dr Laurent Perret; Dr Tom Arnold; Dr Matt Dempsey; UCD President Dr Hugh Brady; Professor Hélène Cixous; Professor Jürgen Habermas; Dr John Bowman; Dr Colm Tóibín; and Professor Thomas McCarthy

# **Development and Alumni Relations**

Development and Alumni Relations fosters relationships with UCD graduates across the world. Its purpose is to develop a culture of philanthropy to support the university's strategic priorities. In recent years UCD has learned the value and importance of establishing the ties that bind alumni to each other and to their alma mater. The concept of connection and reconnection underpins the alumni relations programme.

#### **Progress to date**

The *Alum-inate* campaign was launched to encourage alumni to register and update their contact details. There are over 130,000 alumni worldwide and staying in touch with as many as possible is critical to the work of the Alumni Relations Office. The goal of *Alum-inate* is to build a central and detailed database.

The alumni magazine, *UCD Connections*, was relaunched. The goal was to create a magazine that was 'for alumni about alumni'. *UCD Connections* is available to everyone on the alumni database and the new format focused on the success, ambitions and work of alumni, as well as the progress made on the UCD campus.

2009/10 saw the introduction of *Characters in Conversation*, a new series of events that have mass appeal to alumni, staff and students. The events feature two well known alumni, where one interviews the other, in a frank and open exchange. Denis O'Brien, Pat Kenny, Kevin Myers and Olivia O'Leary were all *Characters in Conversation* in 2009/10.

### **Fundraising**

Alumni Relations is critical to the success of the fundraising campaigns. Its programme of 2009/10 communications and events served the university in a multitude of ways.

The prestigious Newman Fellowships Programme, which is funded by philanthropy, business and industry, was expanded in its efforts to attract more Fellows who will deliver world-class research across a wide spectrum of disciplines. This will bring enormous benefit to Ireland and the international community.

The very successful UCD Alumni Fund continued its efforts through telethons, direct mail and email.

A formal campaign was launched to introduce legacy giving to UCD alumni. The gifts left by alumni can be vital to the work of the university, through the funding of a scholarship, the setting up of a foundation or to buy books for the library.

#### **Forming Global Minds**

The Campaign for UCD - Forming Global Minds 2008-2014, is the capital campaign coordinated by UCD Foundation. Its four priorities are Law, Science, Sport and Business. There are currently four key campaign actions:

The completion of the €27m Campaign for UCD Sutherland School of Law. This is on schedule for ground breaking in September 2010 and it will bring the Law School into the heart of the UCD campus;

The launch of the €96m Campaign for the UCD Science Centre. This is a leveraged fundraising (matching funding) campaign that will help UCD create Ireland's largest science district;

Planning the Campaign for Sport, to inspire generations of future athletes and give them the best opportunities possible on the sports field and in the classroom;

Assessing the Campaign needs for the School of Business over the coming year.

# **Capital Development**

Several strategic infrastructure projects began or continued in 2009/10. These form part of a planned €300 million development that will inspire generations to engage in third level education, research and innovation. As set out in the Strategic Plan, the new Gateway Campus Masterplan is guiding the development of Belfield as a living, green and sustainable campus with new energy efficient buildings in an evolving landscape.

#### **UCD Sutherland School of Law**

The new UCD Sutherland School of Law Building is one of the initial projects guided by the Gateway Masterplan, and is scheduled for completion by early 2012. This 6,100m<sup>2</sup> building will create modern and dynamic accommodation for the learning and practice of legal skills, and will benefit students, academics and the wider legal profession, both nationally and internationally.

#### **UCD Science Centre**

Through PRTLI4 funded programmes, the Science Centre development, which is guided by the Gateway Masterplan, continued to gain momentum. These state-of-the-art facilities will be completed in early 2011. This will be followed by the construction of accommodation for undergraduate, taught postgraduate, outreach, and the recently announced PRTLI5 interdisciplinary research and innovation activities. The expansion and redevelopment of the original 1960's building serves as a model for sustainability incorporating high performance cladding and a series of energy efficient systems and technologies designed to reduce the building's carbon footprint.

## **Newman Building**

The Newman Building continued to undergo a series of redevelopment activities: small group learning classrooms generate a friendly, welcoming atmosphere for learning and socialising; and upgraded lecture theatres include energy efficient ventilation and heat recovery systems, occupancy detection and carbon dioxide monitoring. These new designs are expected to achieve an overall target reduction of 20% in energy consumption.

# **UCD Student Learning, Leisure and Sports Complex**

Construction is well advanced on new student facilities which will combine cultural and sporting pursuits. Leisure amenities, including a gym and 50m swimming pool, will

compliment student health, debating, drama, and media resources. The innovative design incorporates power cogeneration, which reduces long-term operational costs. The new facility will be open in late 2011.

#### **UCD Charles Institute**

The completion in late 2010 of the Charles Institute for Dermatology will deliver a national resource for skin related research. The new building linking UCD Health Sciences and the Conway Institute will also host Systems Biology Ireland, which will combine expertise in systems engineering, mathematical and computational approaches with state-of-the-art technology platforms.

#### **Other Facilities**

The development of new horticulture research accommodation at Rosemount was completed in early 2010. This provides new technology platforms to support the Programme for Experimental Atmospheres and Climate (PEAC). Here, researchers will investigate the role of climate, atmospheric oxygen and carbon dioxide as drivers of large scale patterns in plant evolution.

The latest phase of student accommodation, Roebuck Hall reflects the university's continued commitment towards sustainability principles. It was designed to reduce students' carbon footprint during their residence, and includes rainwater harvesting, solar panels and a highly insulated facade.

This extensive capital development programme requires a number of campus-wide initiatives, including the alteration of car parks, landscape and road layouts. A design for new multi-storey commuting facilities has been lodged with the Planning Authority. This incorporates the use of photo-voltaics and other energy efficient measures. The development will provide secure bicycle parking with shower and changing facilities, bicycle shop, bus terminus, 600 car spaces and electric car supports.

The extension of UCD Oakmount Crèche in early 2010 generated additional childcare facilities.

The campus landscape is benefitting significantly from over 4km of woodland boundary walkways which have been put in place to enhance the campus amenities for students, staff and the local community.

# **Awards and Honours**

#### **Honorary Degrees**

**Professor Patrick Cunningham,** 2 December 2009, Chief Scientific Adviser to the Irish Government - Honorary Degree of Doctor of Science

**His Excellency Dr José Ramos Horta**, 8 March 2010, President Timor-Leste - Honorary Degree of Doctor of Laws

**Professor Denys Turner**, 11 March 2010, theologian - Honorary Doctorate of Literature

**Tom Arnold**, 16 June 2010, Chief Executive of Concern Worldwide - Honorary Degree of Doctor of Science

**Professor Tadhg Begley**, 16 June 2010, Chemist - Honorary Degree of Doctor of Science

**Dr John Bowman**, 16 June 2010, broadcaster, historian and political scientist - Honorary Degree of Doctor of Literature

**Dr Martin Carey**, 16 June 2010, medical researcher and physician - Honorary Degree of Doctor of Science

**Professor Hélène Cixous**, 16 June 2010, French novelist, playwright and feminist theorist - Honorary Degree of Doctor of Literature

**Matt Dempsey**, 16 June 2010, Editor and Chief Executive of the Irish Farmers' Journal - Honorary Degree of Doctor of Science

**Professor Raymond Dwek**, 16 June 2010, Director of the Glycobiology Institute, Exeter College, Oxford University - Honorary Degree of Doctor of Science

**Professor Thomas McCarthy**, 16 June 2010, Emeritus John Shaffer Professor in the Humanities, Northwestern University - Honorary Degree of Doctor of Literature

**Dr Laurent Perret**, 16 June 2010, President of the Scientific Committee, Servier Research Group - Honorary Degree of Doctor of Science

**Colm Tóibín**, 16 June 2010, author - Honorary Degree of Doctor of Literature

#### **UCD Ulysses Medal**

**Professor Eric R Kandel**, 21 September 2009, in recognition of his outstanding contribution to Neurobiology and the mechanism of memory function.

**Professor James Smith**, 15 October 2009, in recognition of his global contribution to the study and understanding of health economics.

**Professor Jürgen Habermas**, 16 June 2010, in recognition of his global contribution to philosophy and social theory.

#### **UCD Foundation Day Medal**

UCD Alumnus **Brian O'Driscoll**, international rugby player, was awarded the UCD Foundation Day Medal on 6 November 2009, in recognition of his outstanding contribution to Irish sport.

#### **UCD Hume Medal**

**Dr Mary Robinson** was awarded the UCD Hume Medal in November 2009 in recognition of her distinguished role in highlighting the richness and potential of the Irish diaspora, her outstanding global contribution as UN High Commissioner for Human Rights, and for her pioneering work on ethical globalisation and climate justice that is ongoing.